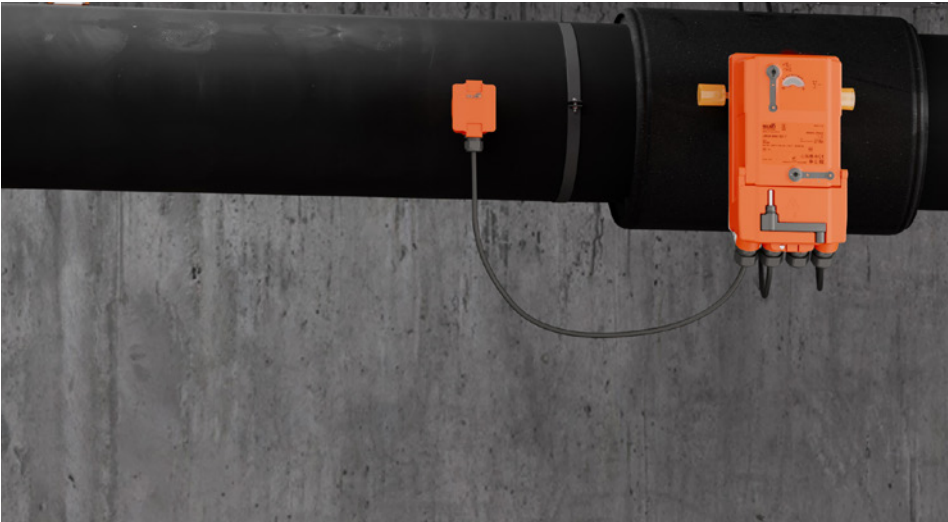
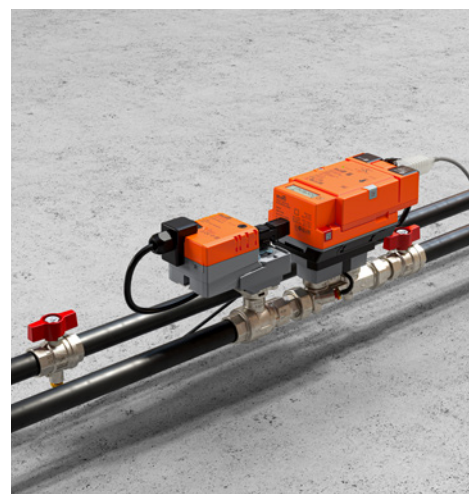




**Efficiency and  
reliability in versatile  
applications**



## The complete product range for water applications

Edition 2026

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**Zone valves**  
**Maximum comfort, minimum consumption**

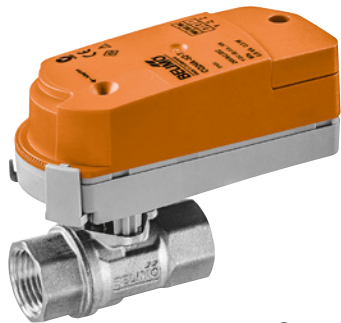
|                                                                    |                 |       |       |              |    |
|--------------------------------------------------------------------|-----------------|-------|-------|--------------|----|
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Please refer to the data sheets or notes for project planning for further technical data to be observed.

DN 15...25

Non fail-safe actuators

|                                |                                               |
|--------------------------------|-----------------------------------------------|
| Field of use                   | Closed water systems (pH >7)                  |
| Fluid temperature              | 2...90°C                                      |
| Pipe connection                | Internal thread Rp (ISO 7-1)                  |
| Leakage rate                   | Air-bubble tight, leakage rate A (EN 12266-1) |
| Flow characteristic            | Equal percentage                              |
| Close-off pressure             | Δp <sub>s</sub> : 520 kPa                     |
| Max. differential pressure     | Δp <sub>max</sub> : 280 kPa                   |
| Permissible operating pressure | p <sub>s</sub> : 1600 kPa                     |



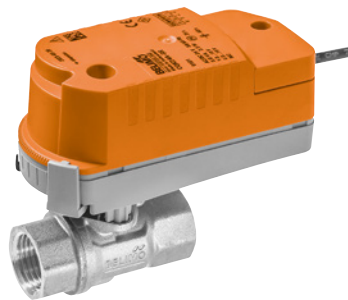
| Suitable actuators                                                                  | Nominal torque           | Open/close             | 3-point                  | Modulating (2...10 V)  | Modulating (0.5...10 V)  | Communication MP-Bus | Communication Modbus | Communication BACnet | Nominal voltage<br>AC/DC 24 V<br>AC 230 V | Running time motor 90° | Actuator type             | PN 25                     |            |                           |            |                           |            |
|-------------------------------------------------------------------------------------|--------------------------|------------------------|--------------------------|------------------------|--------------------------|----------------------|----------------------|----------------------|-------------------------------------------|------------------------|---------------------------|---------------------------|------------|---------------------------|------------|---------------------------|------------|
|                                                                                     |                          |                        |                          |                        |                          |                      |                      |                      |                                           |                        |                           | DN 15                     |            | DN 20                     |            | DN 25                     |            |
|                                                                                     |                          |                        |                          |                        |                          |                      |                      |                      |                                           |                        |                           | K <sub>ys</sub><br>[m³/h] | Valve type | K <sub>ys</sub><br>[m³/h] | Valve type | K <sub>ys</sub><br>[m³/h] | Valve type |
|                                                                                     |                          |                        |                          |                        |                          |                      |                      |                      |                                           |                        |                           | 0.09...1.2                | C215Q-F    | 0.5...8                   | C220Q-K    | 0.5...7                   | C225Q-K    |
|                                                                                     |                          |                        |                          |                        |                          |                      |                      |                      |                                           |                        |                           | 0.4...4.8                 | C215Q-J    | 0.5...8                   | C220Q-K    | 0.5...7                   | C225Q-K    |
| Δp <sub>s</sub><br>kPa                                                              | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa | Δp <sub>max</sub><br>kPa |                      |                      |                      |                                           |                        |                           |                           |            |                           |            |                           |            |
| Standard actuators                                                                  |                          |                        |                          |                        |                          |                      |                      |                      |                                           |                        |                           |                           |            |                           |            |                           |            |
|  | 1 Nm                     | ■                      | ■                        |                        |                          |                      |                      |                      | 24 V                                      | 15 s                   | CQD24A <sup>1)</sup>      | 520                       | 280        | 520                       | 280        | 520                       | 280        |
|                                                                                     |                          | ■                      | ■                        |                        |                          |                      |                      |                      |                                           | 75 s                   | CQ24A                     | 520                       | 280        | 520                       | 280        | 520                       | 280        |
|                                                                                     |                          |                        |                          | ■                      |                          |                      |                      |                      |                                           | 15 s                   | CQD24A-SR <sup>1)</sup>   | 520                       | 280        | 520                       | 280        | 520                       | 280        |
|                                                                                     |                          |                        |                          |                        | ■                        |                      |                      |                      |                                           | 75 s                   | CQ24A-SR                  | 520                       | 280        | 520                       | 280        | 520                       | 280        |
|                                                                                     |                          |                        |                          |                        |                          | ■                    |                      |                      |                                           | 15 s                   | CQD24A-SZ <sup>1)</sup>   | 520                       | 280        | 520                       | 280        | 520                       | 280        |
|                                                                                     |                          |                        |                          |                        |                          |                      | ■                    |                      |                                           | 75 s                   | CQ24A-SZ                  | 520                       | 280        | 520                       | 280        | 520                       | 280        |
|                                                                                     |                          |                        |                          |                        |                          |                      |                      | ■                    |                                           | 15 s                   | CQD24A-MPL <sup>1)</sup>  | 520                       | 280        | 520                       | 280        | 520                       | 280        |
|                                                                                     |                          |                        |                          |                        |                          |                      |                      |                      |                                           | 75 s                   | CQ24A-MPL                 | 520                       | 280        | 520                       | 280        | 520                       | 280        |
|                                                                                     |                          |                        |                          |                        |                          |                      |                      | ■                    |                                           | 15 s                   | CQD24A-BAC                | 520                       | 280        | 520                       | 280        | 520                       | 280        |
|                                                                                     |                          |                        |                          |                        |                          |                      |                      | ■                    |                                           | 75 s                   | CQ24A-BAC                 | 520                       | 280        | 520                       | 280        | 520                       | 280        |
|                                                                                     |                          | ■                      | ■                        |                        |                          |                      |                      |                      | 230 V                                     | 15 s                   | CQD230A <sup>1)</sup>     | 520                       | 280        | 520                       | 280        | 520                       | 280        |
|                                                                                     |                          | ■                      | ■                        |                        |                          |                      |                      |                      |                                           | 35 s                   | CQC230A <sup>1)</sup>     | 520                       | 280        | 520                       | 280        | 520                       | 280        |
|                                                                                     |                          | ■                      | ■                        |                        |                          |                      |                      |                      |                                           | 75 s                   | CQ230A                    | 520                       | 280        | 520                       | 280        | 520                       | 280        |
|                                                                                     |                          |                        |                          |                        |                          |                      |                      |                      |                                           |                        |                           |                           |            |                           |            |                           |            |
| Standard actuators with connecting terminals                                        |                          |                        |                          |                        |                          |                      |                      |                      |                                           |                        |                           |                           |            |                           |            |                           |            |
|  | 1 Nm                     | ■                      | ■                        |                        |                          |                      |                      |                      | 24 V                                      | 15 s                   | CQD24A-T <sup>1)</sup>    | 520                       | 280        | 520                       | 280        | 520                       | 280        |
|                                                                                     |                          | ■                      | ■                        |                        |                          |                      |                      |                      |                                           | 75 s                   | CQ24A-T                   | 520                       | 280        | 520                       | 280        | 520                       | 280        |
|                                                                                     |                          |                        |                          | ■                      |                          |                      |                      |                      |                                           | 15 s                   | CQD24A-SR-T <sup>1)</sup> | 520                       | 280        | 520                       | 280        | 520                       | 280        |
|                                                                                     |                          |                        |                          |                        | ■                        |                      |                      |                      |                                           | 75 s                   | CQ24A-SR-T                | 520                       | 280        | 520                       | 280        | 520                       | 280        |
|                                                                                     |                          |                        |                          |                        |                          | ■                    |                      |                      |                                           | 15 s                   | CQD24A-SZ-T <sup>1)</sup> | 520                       | 280        | 520                       | 280        | 520                       | 280        |
|                                                                                     |                          |                        |                          |                        |                          |                      | ■                    |                      |                                           | 75 s                   | CQ24A-SZ-T                | 520                       | 280        | 520                       | 280        | 520                       | 280        |
|                                                                                     |                          |                        |                          |                        |                          |                      |                      | ■                    |                                           | 15 s                   | CQD24A-MPL-T              | 520                       | 280        | 520                       | 280        | 520                       | 280        |
|                                                                                     |                          |                        |                          |                        |                          |                      |                      |                      |                                           | 75 s                   | CQ24A-MPL-T               | 520                       | 280        | 520                       | 280        | 520                       | 280        |
|                                                                                     |                          | ■                      | ■                        |                        |                          |                      |                      |                      | 230 V                                     | 15 s                   | CQD230A-T                 | 520                       | 280        | 520                       | 280        | 520                       | 280        |
|                                                                                     |                          |                        |                          |                        |                          |                      |                      |                      |                                           | 35 s                   | CQC230A-T                 | 520                       | 280        | 520                       | 280        | 520                       | 280        |
|                                                                                     |                          |                        |                          |                        |                          |                      |                      |                      |                                           | 75 s                   | CQ230A-T                  | 520                       | 280        | 520                       | 280        | 520                       | 280        |

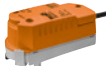
<sup>1)</sup> Fast running actuators: Observe the sound power level according to the associated data sheet.

DN 15...25

Fail-safe actuators

|                                |                                               |
|--------------------------------|-----------------------------------------------|
| Field of use                   | Closed water systems (pH >7)                  |
| Fluid temperature              | 2...90°C                                      |
| Pipe connection                | Internal thread Rp (ISO 7-1)                  |
| Leakage rate                   | Air-bubble tight, leakage rate A (EN 12266-1) |
| Flow characteristic            | Equal percentage                              |
| Close-off pressure             | Δp <sub>s</sub> : 520 kPa                     |
| Max. differential pressure     | Δp <sub>max</sub> : 280 kPa                   |
| Permissible operating pressure | p <sub>s</sub> : 1600 kPa                     |



| Suitable actuators                                                                    | Nominal torque | Open/close | Modulating (2...10 V) | Modulating (0.5...10 V) | Communication MP-Bus | Nominal voltage<br>AC/DC 24 V<br>AC 230 V | Running time motor 90°    | Actuator type                 | <div>→</div> PN 25  |                         |                     |                         |                     |                         |
|---------------------------------------------------------------------------------------|----------------|------------|-----------------------|-------------------------|----------------------|-------------------------------------------|---------------------------|-------------------------------|---------------------|-------------------------|---------------------|-------------------------|---------------------|-------------------------|
|                                                                                       |                |            |                       |                         |                      |                                           |                           |                               | DN 15               |                         | DN 20               |                         | DN 25               |                         |
|                                                                                       |                |            |                       |                         |                      |                                           |                           |                               | $K_{vs}$<br>[m³/h]  | Valve type              | $K_{vs}$<br>[m³/h]  | Valve type              | $K_{vs}$<br>[m³/h]  | Valve type              |
|                                                                                       |                |            |                       |                         |                      |                                           |                           |                               | 0.09...1.2          | C215Q-F                 | 0.5...8             | C220Q-K                 | 0.5...7             | C225Q-K                 |
|                                                                                       |                |            |                       |                         |                      |                                           |                           |                               | 0.4...4.8           | C215Q-J                 | 0.5...8             | C220Q-K                 | 0.5...7             | C225Q-K                 |
|                                                                                       |                |            |                       |                         |                      |                                           |                           |                               | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa |
| Fail-safe actuators NC/NO <sup>2)</sup>                                               |                |            |                       |                         |                      |                                           |                           |                               |                     |                         |                     |                         |                     |                         |
|  | 1 Nm           | ■          |                       |                         |                      | 24 V                                      | 15 s                      | CQKD24A <sup>1)</sup>         | 520                 | 280                     | 520                 | 280                     | 520                 | 280                     |
|                                                                                       |                | ■          |                       |                         |                      |                                           | 75 s                      | CQK24A                        | 520                 | 280                     | 520                 | 280                     | 520                 | 280                     |
|                                                                                       |                |            | ■                     |                         |                      |                                           | 15 s                      | CQKD24A-SR <sup>1)</sup>      | 520                 | 280                     | 520                 | 280                     | 520                 | 280                     |
|                                                                                       |                |            | ■                     |                         |                      |                                           | 75 s                      | CQK24A-SR                     | 520                 | 280                     | 520                 | 280                     | 520                 | 280                     |
|                                                                                       |                |            |                       | ■                       |                      |                                           | 15 s                      | CQKD24A-SZ.1 <sup>1) 3)</sup> | 520                 | 280                     | 520                 | 280                     | 520                 | 280                     |
|                                                                                       |                |            |                       | ■                       |                      | 75 s                                      | CQK24A-SZ.1 <sup>3)</sup> | 520                           | 280                 | 520                     | 280                 | 520                     | 280                 |                         |
|                                                                                       |                |            |                       |                         | ■                    | 75 s                                      | CQK24A-MPL                | 520                           | 280                 | 520                     | 280                 | 520                     | 280                 |                         |
|                                                                                       |                | ■          |                       |                         |                      | 230 V                                     | 15 s                      | CQKD230A <sup>1)</sup>        | 520                 | 280                     | 520                 | 280                     | 520                 | 280                     |
|                                                                                       |                | ■          |                       |                         |                      |                                           | 75 s                      | CQK230A                       | 520                 | 280                     | 520                 | 280                     | 520                 | 280                     |
|                                                                                       |                |            |                       |                         |                      |                                           |                           |                               |                     |                         |                     |                         |                     |                         |
| Fail-safe actuators NC/NO <sup>2)</sup> with connecting terminals                     |                |            |                       |                         |                      |                                           |                           |                               |                     |                         |                     |                         |                     |                         |
|  | 1 Nm           | ■          |                       |                         |                      | 24 V                                      | 75 s                      | CQK24A-T                      | 520                 | 280                     | 520                 | 280                     | 520                 | 280                     |
|                                                                                       |                |            | ■                     |                         |                      |                                           |                           | CQK24A-SR-T                   | 520                 | 280                     | 520                 | 280                     | 520                 | 280                     |
|                                                                                       |                |            |                       | ■                       |                      |                                           |                           | CQK24A-MPL-T                  | 520                 | 280                     | 520                 | 280                     | 520                 | 280                     |
|                                                                                       |                | ■          |                       |                         |                      | 230 V                                     |                           | CQK230A-T                     | 520                 | 280                     | 520                 | 280                     | 520                 | 280                     |

<sup>1)</sup> Fast running actuators: Observe the sound power level according to the associated data sheet.

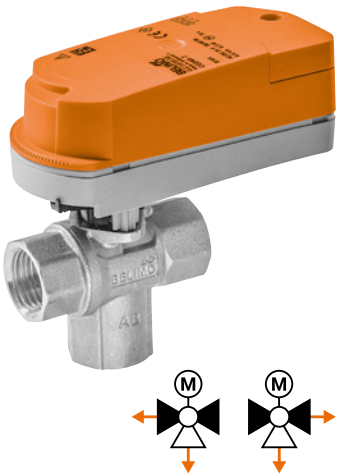
<sup>2)</sup> Fail-safe actuator: The fail-safe position is NC (normally closed). The NO (normally open) version is available on request.

<sup>3)</sup> Actuator is delivered in multipack with 36 pieces.

DN 15...25

Non fail-safe actuators

|                                |                                               |
|--------------------------------|-----------------------------------------------|
| Field of use                   | Closed water systems (pH >7)                  |
| Fluid temperature              | 2...90°C                                      |
| Pipe connection                | Internal thread Rp (ISO 7-1)                  |
| Leakage rate                   | Air-bubble tight, leakage rate A (EN 12266-1) |
| Close-off pressure             | Δp <sub>s</sub> : 280 kPa                     |
| Max. differential pressure     | Δp <sub>max</sub> : 280 kPa                   |
| Permissible operating pressure | p <sub>s</sub> : 1600 kPa                     |



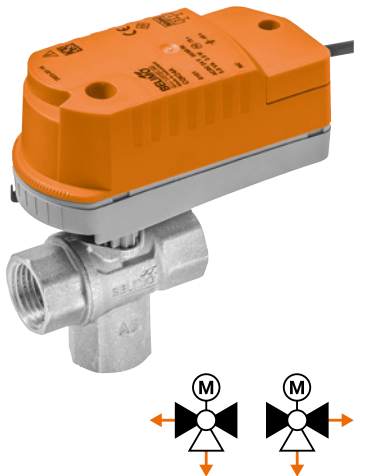
| Suitable actuators                                                                  |      | Nominal torque | Open/close | 3-point | Communication MP-Bus | Communication Modbus | Communication BACnet | Nominal voltage<br>AC/DC 24 V<br>AC 230 V | Running time motor 90°   | Actuator type | PN 25                     |                        |                           |                        |                           |                        |                          |     |
|-------------------------------------------------------------------------------------|------|----------------|------------|---------|----------------------|----------------------|----------------------|-------------------------------------------|--------------------------|---------------|---------------------------|------------------------|---------------------------|------------------------|---------------------------|------------------------|--------------------------|-----|
|                                                                                     |      |                |            |         |                      |                      |                      |                                           |                          |               | DN 15                     |                        | DN 20                     |                        | DN 25                     |                        |                          |     |
|                                                                                     |      |                |            |         |                      |                      |                      |                                           |                          |               | K <sub>vs</sub><br>[m³/h] | Valve type             | K <sub>vs</sub><br>[m³/h] | Valve type             | K <sub>vs</sub><br>[m³/h] | Valve type             |                          |     |
|                                                                                     |      |                |            |         |                      |                      |                      |                                           |                          |               | 2.5                       | C315Q-H                | 4                         | C320Q-J                | 4                         | C325Q-J                |                          |     |
|                                                                                     |      |                |            |         |                      |                      |                      |                                           |                          |               |                           | Δp <sub>s</sub><br>kPa | Δp <sub>max</sub><br>kPa  | Δp <sub>s</sub><br>kPa | Δp <sub>max</sub><br>kPa  | Δp <sub>s</sub><br>kPa | Δp <sub>max</sub><br>kPa |     |
| Standard actuators                                                                  |      |                |            |         |                      |                      |                      |                                           |                          |               |                           |                        |                           |                        |                           |                        |                          |     |
|  | 1 Nm | ■              | ■          | —       | —                    | —                    | 24 V                 | 15 s                                      | CQD24A <sup>1)</sup>     | 280           | 280                       | 280                    | 280                       | 280                    | 280                       |                        |                          |     |
|                                                                                     |      | ■              | ■          | —       | —                    | —                    |                      | 75 s                                      | CQ24A                    | 280           | 280                       | 280                    | 280                       | 280                    | 280                       |                        |                          |     |
|                                                                                     |      | —              | —          | ■       | —                    | —                    |                      | 15 s                                      | CQD24A-MPL <sup>1)</sup> | 280           | 280                       | 280                    | 280                       | 280                    | 280                       |                        |                          |     |
|                                                                                     |      | —              | —          | ■       | —                    | —                    |                      | 75 s                                      | CQ24A-MPL                | 280           | 280                       | 280                    | 280                       | 280                    | 280                       |                        |                          |     |
|                                                                                     |      | —              | —          | —       | ■                    | ■                    | 230 V                | 15 s                                      | CQD24A-BAC               | 280           | 280                       | 280                    | 280                       | 280                    | 280                       |                        |                          |     |
|                                                                                     |      | ■              | ■          | —       | —                    | —                    |                      | 75 s                                      | CQ24A-BAC                | 280           | 280                       | 280                    | 280                       | 280                    | 280                       |                        |                          |     |
|                                                                                     |      | ■              | ■          | —       | —                    | —                    |                      | 15 s                                      | CQD230A <sup>1)</sup>    | 280           | 280                       | 280                    | 280                       | 280                    | 280                       |                        |                          |     |
|                                                                                     |      | ■              | ■          | —       | —                    | —                    |                      | 35 s                                      | CQC230A <sup>1)</sup>    | 280           | 280                       | 280                    | 280                       | 280                    | 280                       |                        |                          |     |
|                                                                                     |      |                |            |         |                      |                      |                      |                                           |                          |               |                           | 75 s                   | CQ230A                    | 280                    | 280                       | 280                    | 280                      | 280 |
| Standard actuators with connecting terminals                                        |      |                |            |         |                      |                      |                      |                                           |                          |               |                           |                        |                           |                        |                           |                        |                          |     |
|  | 1 Nm | ■              | ■          | —       | —                    | —                    | 24 V                 | 15 s                                      | CQD24A-T <sup>1)</sup>   | 280           | 280                       | 280                    | 280                       | 280                    | 280                       |                        |                          |     |
|                                                                                     |      | ■              | ■          | —       | —                    | —                    |                      | 75 s                                      | CQ24A-T                  | 280           | 280                       | 280                    | 280                       | 280                    | 280                       |                        |                          |     |
|                                                                                     |      | —              | —          | ■       | —                    | —                    | 230 V                | 75 s                                      | CQ24A-MPL-T              | 280           | 280                       | 280                    | 280                       | 280                    | 280                       |                        |                          |     |
|                                                                                     |      | ■              | ■          | —       | —                    | —                    |                      | 75 s                                      | CQ230A-T                 | 280           | 280                       | 280                    | 280                       | 280                    | 280                       |                        |                          |     |

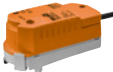
<sup>1)</sup> Fast running actuators: Observe the sound power level according to the associated data sheet.

DN 15...25

Fail-safe actuators

|                                |                                               |
|--------------------------------|-----------------------------------------------|
| Field of use                   | Closed water systems (pH >7)                  |
| Fluid temperature              | 2...90°C                                      |
| Pipe connection                | Internal thread Rp (ISO 7-1)                  |
| Leakage rate                   | Air-bubble tight, leakage rate A (EN 12266-1) |
| Close-off pressure             | Δp <sub>s</sub> : 280 kPa                     |
| Max. differential pressure     | Δp <sub>max</sub> : 280 kPa                   |
| Permissible operating pressure | p <sub>s</sub> : 1600 kPa                     |



| Suitable actuators                                                                    | Nominal torque | Open/close | Communication MP-Bus | Nominal voltage<br>AC/DC 24 V<br>AC 230 V | Running time motor 90° | Actuator type             | <div>→</div> PN 25        |                          |                           |                          |                           |                          |
|---------------------------------------------------------------------------------------|----------------|------------|----------------------|-------------------------------------------|------------------------|---------------------------|---------------------------|--------------------------|---------------------------|--------------------------|---------------------------|--------------------------|
|                                                                                       |                |            |                      |                                           |                        |                           | DN 15                     |                          | DN 20                     |                          | DN 25                     |                          |
|                                                                                       |                |            |                      |                                           |                        |                           | K <sub>vs</sub><br>[m³/h] | Valve type               | K <sub>vs</sub><br>[m³/h] | Valve type               | K <sub>vs</sub><br>[m³/h] | Valve type               |
|                                                                                       |                |            |                      |                                           |                        |                           | 2.5                       | C315Q-H                  | 4                         | C320Q-J                  | 4                         | C325Q-J                  |
|                                                                                       |                |            |                      |                                           |                        |                           | Δp <sub>s</sub><br>kPa    | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa    | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa    | Δp <sub>max</sub><br>kPa |
| Fail-safe actuators NC/NO <sup>2)</sup>                                               |                |            |                      |                                           |                        |                           |                           |                          |                           |                          |                           |                          |
|  | 1 Nm           | ■          | —                    | 24 V                                      | 15 s                   | CQKD24A <sup>1)</sup>     | 280                       | 280                      | 280                       | 280                      | 280                       | 280                      |
|                                                                                       |                | ■          | —                    |                                           | 75 s                   | CQK24A                    | 280                       | 280                      | 280                       | 280                      | 280                       | 280                      |
|                                                                                       |                | —          | ■                    |                                           | 15 s                   | CQKD24A-MPL <sup>1)</sup> | 280                       | 280                      | 280                       | 280                      | 280                       | 280                      |
|                                                                                       |                | —          | ■                    |                                           | 75 s                   | CQK24A-MPL                | 280                       | 280                      | 280                       | 280                      | 280                       | 280                      |
|                                                                                       |                | ■          | —                    | 230 V                                     | 15 s                   | CQKD230A <sup>1)</sup>    | 280                       | 280                      | 280                       | 280                      | 280                       | 280                      |
|                                                                                       |                | ■          | —                    |                                           | 75 s                   | CQK230A                   | 280                       | 280                      | 280                       | 280                      | 280                       | 280                      |
| Fail-safe actuators NC/NO <sup>2)</sup> with connecting terminals                     |                |            |                      |                                           |                        |                           |                           |                          |                           |                          |                           |                          |
|  | 1 Nm           | ■          | —                    | 24 V                                      | 75 s                   | CQK24A-T                  | 280                       | 280                      | 280                       | 280                      | 280                       | 280                      |
|                                                                                       |                | —          | ■                    |                                           |                        | CQK24A-MPL-T              | 280                       | 280                      | 280                       | 280                      | 280                       | 280                      |
|                                                                                       |                | ■          | —                    | 230 V                                     |                        | CQK230A-T                 | 280                       | 280                      | 280                       | 280                      | 280                       | 280                      |

<sup>1)</sup> Fast running actuators: Observe the sound power level according to the associated data sheet.  
<sup>2)</sup> Fail-safe actuator: The fail-safe position is NC (normally closed). The NO (normally open) version is available on request.



DN 15/20

Non fail-safe actuators

|                                |                                               |
|--------------------------------|-----------------------------------------------|
| Field of use                   | Closed water systems (pH >7)                  |
| Fluid temperature              | 2...90°C                                      |
| Pipe connection                | External thread G (ISO 228-1)                 |
| Leakage rate                   | Air-bubble tight, leakage rate A (EN 12266-1) |
| Flow characteristic            | Equal percentage                              |
| Close-off pressure             | $\Delta p_s$ : 520 kPa                        |
| Max. differential pressure     | $\Delta p_{max}$ : 280 kPa                    |
| Permissible operating pressure | $p_s$ : 1600 kPa                              |



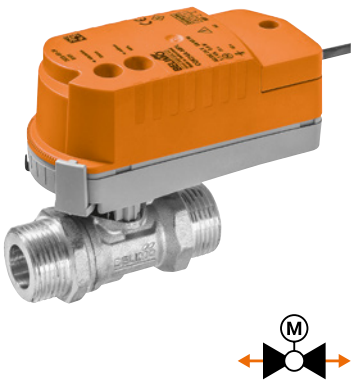
| Suitable actuators | Nominal torque | Open/close                                                        | 3-point | Modulating (2...10 V) | Modulating (0.5...10 V) | Communication MP-Bus | Communication Modbus | Communication BACnet | Nominal voltage<br>AC/DC 24 V<br>AC 230 V | Running time motor 90° | Actuator type                | PN 25              |            |                    |            |
|--------------------|----------------|-------------------------------------------------------------------|---------|-----------------------|-------------------------|----------------------|----------------------|----------------------|-------------------------------------------|------------------------|------------------------------|--------------------|------------|--------------------|------------|
|                    |                |                                                                   |         |                       |                         |                      |                      |                      |                                           |                        |                              | DN 15              |            | DN 20              |            |
|                    |                |                                                                   |         |                       |                         |                      |                      |                      |                                           |                        |                              | $K_{vs}$<br>[m³/h] | Valve type | $K_{vs}$<br>[m³/h] | Valve type |
|                    |                |                                                                   |         |                       |                         |                      |                      |                      |                                           |                        |                              | 0.4...4.5          | C415Q-J    | 0.5...7.8          | C420Q-K    |
| CQ..               | 1 Nm           | Standard actuators                                                | ■       | ■                     | —                       | —                    | —                    | —                    | 24 V                                      | 15 s                   | CQD24A <sup>1)</sup>         | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | ■       | ■                     | —                       | —                    | —                    | —                    |                                           | 75 s                   | CQ24A                        | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | —       | —                     | ■                       | —                    | —                    | —                    |                                           | 15 s                   | CQD24A-SR <sup>1)</sup>      | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | —       | —                     | ■                       | —                    | —                    | —                    |                                           | 75 s                   | CQ24A-SR                     | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | —       | —                     | —                       | ■                    | —                    | —                    |                                           | 15 s                   | CQD24A-SZ <sup>1)</sup>      | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | —       | —                     | —                       | ■                    | —                    | —                    |                                           | 75 s                   | CQ24A-SZ                     | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | —       | —                     | —                       | —                    | ■                    | —                    |                                           | 15 s                   | CQD24A-MPL <sup>1)</sup>     | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | —       | —                     | —                       | —                    | ■                    | —                    |                                           | 75 s                   | CQ24A-MPL                    | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | —       | —                     | —                       | —                    | —                    | ■                    |                                           | 75 s                   | CQ24A-BAC                    | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | ■       | ■                     | —                       | —                    | —                    | —                    | 230 V                                     | 15 s                   | CQD230A <sup>1)</sup>        | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | ■       | ■                     | —                       | —                    | —                    | —                    |                                           | 35 s                   | CQC230A <sup>1)</sup>        | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | ■       | ■                     | —                       | —                    | —                    | —                    |                                           | 75 s                   | CQ230A                       | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | —       | —                     | —                       | —                    | —                    | —                    |                                           | —                      | —                            | —                  | —          | —                  | —          |
| CQ..-T             | 1 Nm           | Standard actuators with connecting terminals                      | ■       | ■                     | —                       | —                    | —                    | —                    | 24 V                                      | 15 s                   | CQD24A-T <sup>1)</sup>       | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | ■       | ■                     | —                       | —                    | —                    | —                    |                                           | 75 s                   | CQ24A-T                      | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | —       | —                     | ■                       | —                    | —                    | —                    |                                           | 15 s                   | CQD24A-SR-T <sup>1)</sup>    | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | —       | —                     | ■                       | —                    | —                    | —                    |                                           | 75 s                   | CQ24A-SR-T                   | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | —       | —                     | —                       | ■                    | —                    | —                    |                                           | 15 s                   | CQD24A-SZ-T <sup>1)</sup>    | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | —       | —                     | —                       | ■                    | —                    | —                    |                                           | 75 s                   | CQ24A-SZ-T                   | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | —       | —                     | —                       | —                    | ■                    | —                    |                                           | 75 s                   | CQ24A-MPL-T                  | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | ■       | ■                     | —                       | —                    | —                    | —                    | 230 V                                     | 75 s                   | CQ230A-T                     | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | —       | —                     | —                       | —                    | —                    | —                    |                                           | —                      | —                            | —                  | —          | —                  | —          |
|                    |                |                                                                   | —       | —                     | —                       | —                    | —                    | —                    |                                           | —                      | —                            | —                  | —          | —                  | —          |
|                    |                |                                                                   | —       | —                     | —                       | —                    | —                    | —                    |                                           | —                      | —                            | —                  | —          | —                  | —          |
| CQK..              | 1 Nm           | Fail-safe actuators NC/NO <sup>2)</sup>                           | ■       | —                     | —                       | —                    | —                    | —                    | 24 V                                      | 15 s                   | CQKD24A <sup>1)</sup>        | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | ■       | —                     | —                       | —                    | —                    | —                    |                                           | 75 s                   | CQK24A                       | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | —       | —                     | ■                       | —                    | —                    | —                    |                                           | 15 s                   | CQKD24A-SR <sup>1)</sup>     | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | —       | —                     | ■                       | —                    | —                    | —                    |                                           | 75 s                   | CQK24A-SR                    | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | —       | —                     | —                       | ■                    | —                    | —                    |                                           | 15 s                   | CQKD24A-SZ.1 <sup>1)3)</sup> | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | —       | —                     | —                       | ■                    | —                    | —                    |                                           | 75 s                   | CQK24A-SZ.1 <sup>3)</sup>    | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | —       | —                     | —                       | —                    | ■                    | —                    |                                           | 75 s                   | CQK24A-MPL                   | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | ■       | —                     | —                       | —                    | —                    | —                    | 230 V                                     | 15 s                   | CQKD230A <sup>1)</sup>       | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | ■       | —                     | —                       | —                    | —                    | —                    |                                           | 75 s                   | CQK230A                      | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | —       | —                     | —                       | —                    | —                    | —                    |                                           | —                      | —                            | —                  | —          | —                  | —          |
|                    |                |                                                                   | —       | —                     | —                       | —                    | —                    | —                    |                                           | —                      | —                            | —                  | —          | —                  | —          |
| CQK..-T            | 1 Nm           | Fail-safe actuators NC/NO <sup>2)</sup> with connecting terminals | ■       | —                     | —                       | —                    | —                    | —                    | 24 V                                      | 75 s                   | CQK24A-T                     | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | —       | —                     | ■                       | —                    | —                    | —                    |                                           | 75 s                   | CQK24A-SR-T                  | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | —       | —                     | —                       | ■                    | —                    | —                    |                                           | 75 s                   | CQK24A-MPL-T                 | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | ■       | —                     | —                       | —                    | —                    | —                    | 230 V                                     | 75 s                   | CQK230A-T                    | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | —       | —                     | —                       | —                    | —                    | —                    |                                           | —                      | —                            | —                  | —          | —                  | —          |
|                    |                |                                                                   | —       | —                     | —                       | —                    | —                    | —                    |                                           | —                      | —                            | —                  | —          | —                  | —          |
|                    |                |                                                                   | —       | —                     | —                       | —                    | —                    | —                    |                                           | —                      | —                            | —                  | —          | —                  | —          |
|                    |                |                                                                   | —       | —                     | —                       | —                    | —                    | —                    |                                           | —                      | —                            | —                  | —          | —                  | —          |
|                    |                |                                                                   | —       | —                     | —                       | —                    | —                    | —                    |                                           | —                      | —                            | —                  | —          | —                  | —          |
|                    |                |                                                                   | —       | —                     | —                       | —                    | —                    | —                    |                                           | —                      | —                            | —                  | —          | —                  | —          |
|                    |                |                                                                   | —       | —                     | —                       | —                    | —                    | —                    |                                           | —                      | —                            | —                  | —          | —                  | —          |
|                    |                |                                                                   | —       | —                     | —                       | —                    | —                    | —                    |                                           | —                      | —                            | —                  | —          | —                  | —          |
|                    |                |                                                                   | —       | —                     | —                       | —                    | —                    | —                    |                                           | —                      | —                            | —                  | —          | —                  | —          |
|                    |                |                                                                   | —       | —                     | —                       | —                    | —                    | —                    |                                           | —                      | —                            | —                  | —          | —                  | —          |

<sup>1)</sup> Fast running actuators: Observe the sound power level according to the associated data sheet.

DN 15/20

Fail-safe actuators

|                                |                                               |
|--------------------------------|-----------------------------------------------|
| Field of use                   | Closed water systems (pH >7)                  |
| Fluid temperature              | 2...90°C                                      |
| Pipe connection                | External thread G (ISO 228-1)                 |
| Leakage rate                   | Air-bubble tight, leakage rate A (EN 12266-1) |
| Flow characteristic            | Equal percentage                              |
| Close-off pressure             | $\Delta p_s$ : 520 kPa                        |
| Max. differential pressure     | $\Delta p_{max}$ : 280 kPa                    |
| Permissible operating pressure | $p_s$ : 1600 kPa                              |



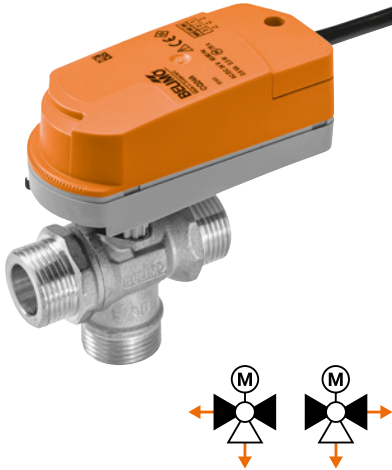
| Suitable actuators | Nominal torque | Open/close                                                        | Modulating (2...10 V) | Modulating (0.5...10 V) | Communication MP-Bus | Nominal voltage<br>AC/DC 24 V<br>AC 230 V | Running time motor 90° | Actuator type                | PN 25              |            |                    |            |
|--------------------|----------------|-------------------------------------------------------------------|-----------------------|-------------------------|----------------------|-------------------------------------------|------------------------|------------------------------|--------------------|------------|--------------------|------------|
|                    |                |                                                                   |                       |                         |                      |                                           |                        |                              | DN 15              |            | DN 20              |            |
|                    |                |                                                                   |                       |                         |                      |                                           |                        |                              | $K_{vs}$<br>[m³/h] | Valve type | $K_{vs}$<br>[m³/h] | Valve type |
|                    |                |                                                                   |                       |                         |                      |                                           |                        |                              | 0.4...4.5          | C415Q-J    | 0.5...7.8          | C420Q-K    |
| CQK..              | 1 Nm           | Fail-safe actuators NC/NO <sup>2)</sup>                           | ■                     | —                       | —                    | 24 V                                      | 15 s                   | CQKD24A <sup>1)</sup>        | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | ■                     | —                       | —                    |                                           | 75 s                   | CQK24A                       | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | —                     | —                       | ■                    |                                           | 15 s                   | CQKD24A-SR <sup>1)</sup>     | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | —                     | —                       | ■                    |                                           | 75 s                   | CQK24A-SR                    | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | —                     | —                       | —                    |                                           | 15 s                   | CQKD24A-SZ.1 <sup>1)3)</sup> | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | —                     | —                       | —                    |                                           | 75 s                   | CQK24A-SZ.1 <sup>3)</sup>    | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | —                     | —                       | —                    |                                           | 75 s                   | CQK24A-MPL                   | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | ■                     | —                       | —                    | 230 V                                     | 15 s                   | CQKD230A <sup>1)</sup>       | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | ■                     | —                       | —                    |                                           | 75 s                   | CQK230A                      | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | —                     | —                       | —                    |                                           | —                      | —                            | —                  | —          | —                  | —          |
|                    |                |                                                                   | —                     | —                       | —                    |                                           | —                      | —                            | —                  | —          | —                  | —          |
| CQK..-T            | 1 Nm           | Fail-safe actuators NC/NO <sup>2)</sup> with connecting terminals | ■                     | —                       | —                    | 24 V                                      | 75 s                   | CQK24A-T                     | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | —                     | —                       | ■                    |                                           | 75 s                   | CQK24A-SR-T                  | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | —                     | —                       | —                    |                                           | 75 s                   | CQK24A-MPL-T                 | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | ■                     | —                       | —                    | 230 V                                     | 75 s                   | CQK230A-T                    | 520                | 280        | 520                | 280        |
|                    |                |                                                                   | —                     | —                       | —                    |                                           | —                      | —                            | —                  | —          | —                  | —          |
|                    |                |                                                                   | —                     | —                       | —                    |                                           | —                      | —                            | —                  | —          | —                  | —          |
|                    |                |                                                                   | —                     | —                       | —                    |                                           | —                      | —                            | —                  | —          | —                  | —          |
|                    |                |                                                                   | —                     | —                       | —                    |                                           | —                      | —                            | —                  | —          | —                  | —          |
|                    |                |                                                                   | —                     | —                       | —                    |                                           | —                      | —                            | —                  | —          | —                  | —          |
|                    |                |                                                                   | —                     | —                       | —                    |                                           | —                      | —                            | —                  | —          | —                  | —          |
|                    |                |                                                                   | —                     | —                       | —                    |                                           | —                      | —                            | —                  | —          | —                  | —          |
|                    |                |                                                                   | —                     | —                       | —                    |                                           | —                      | —                            | —                  | —          | —                  | —          |
|                    |                |                                                                   | —                     | —                       | —                    |                                           | —                      | —                            | —                  | —          | —                  | —          |
|                    |                |                                                                   | —                     | —                       | —                    |                                           | —                      | —                            | —                  | —          | —                  | —          |
|                    |                |                                                                   | —                     | —                       | —                    |                                           | —                      | —                            | —                  | —          | —                  | —          |

<sup>1)</sup> Fast running actuators: Observe the sound power level according to the associated data sheet.  
<sup>2)</sup> Fail-safe actuator: The fail-safe position is NC (normally closed). The NO (normally open) version is available on request.  
<sup>3)</sup> Actuator is delivered in multipack with 36 pieces.

DN 15/20

Non fail-safe actuators

|                                |                                               |
|--------------------------------|-----------------------------------------------|
| Field of use                   | Closed water systems (pH >7)                  |
| Fluid temperature              | 2...90°C                                      |
| Pipe connection                | External thread G (ISO 228-1)                 |
| Leakage rate                   | Air-bubble tight, leakage rate A (EN 12266-1) |
| Close-off pressure             | Δp <sub>s</sub> : 280 kPa                     |
| Max. differential pressure     | Δp <sub>max</sub> : 280 kPa                   |
| Permissible operating pressure | p <sub>s</sub> : 1600 kPa                     |



|                    |                |            |                                              |                      |                      |                      |                                           |                        |                          | PN 25                     |                          |                           |                          |
|--------------------|----------------|------------|----------------------------------------------|----------------------|----------------------|----------------------|-------------------------------------------|------------------------|--------------------------|---------------------------|--------------------------|---------------------------|--------------------------|
|                    |                |            |                                              |                      |                      |                      |                                           |                        |                          | DN 15                     |                          | DN 20                     |                          |
|                    |                |            |                                              |                      |                      |                      |                                           |                        |                          | K <sub>vs</sub><br>[m³/h] | Valve type               | K <sub>vs</sub><br>[m³/h] | Valve type               |
|                    |                |            |                                              |                      |                      |                      |                                           |                        |                          | 2.3                       | C515Q-H                  | 3.6                       | C520Q-J                  |
| Suitable actuators | Nominal torque | Open/close | 3-point                                      | Communication MP-Bus | Communication Modbus | Communication BACnet | Nominal voltage<br>AC/DC 24 V<br>AC 230 V | Running time motor 90° | Actuator type            | Δp <sub>s</sub><br>kPa    | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa    | Δp <sub>max</sub><br>kPa |
|                    |                |            |                                              |                      |                      |                      |                                           |                        |                          |                           |                          |                           |                          |
| Standard actuators |                |            |                                              |                      |                      |                      |                                           |                        |                          |                           |                          |                           |                          |
| CQ..               | 1 Nm           | ■          | ■                                            | —                    | —                    | —                    | 24 V                                      | 15 s                   | CQD24A <sup>1)</sup>     | 280                       | 280                      | 280                       | 280                      |
|                    |                | ■          | ■                                            | —                    | —                    | —                    |                                           | 75 s                   | CQ24A                    | 280                       | 280                      | 280                       | 280                      |
|                    |                | —          | —                                            | ■                    | —                    | —                    |                                           | 15 s                   | CQD24A-MPL <sup>1)</sup> | 280                       | 280                      | 280                       | 280                      |
|                    |                | —          | —                                            | ■                    | —                    | —                    |                                           | 75 s                   | CQ24A-MPL                | 280                       | 280                      | 280                       | 280                      |
|                    |                | —          | —                                            | —                    | ■                    | ■                    | CQ24A-BAC                                 | 280                    | 280                      | 280                       | 280                      | 280                       |                          |
|                    |                | 230 V      | ■                                            | ■                    | —                    | —                    | —                                         | 15 s                   | CQD230A <sup>1)</sup>    | 280                       | 280                      | 280                       | 280                      |
|                    |                |            | ■                                            | ■                    | —                    | —                    | —                                         | 35 s                   | CQC230A <sup>1)</sup>    | 280                       | 280                      | 280                       | 280                      |
|                    |                |            | ■                                            | ■                    | —                    | —                    | —                                         | 75 s                   | CQ230A                   | 280                       | 280                      | 280                       | 280                      |
|                    |                |            | Standard actuators with connecting terminals |                      |                      |                      |                                           |                        |                          |                           |                          |                           |                          |
|                    |                | CQ..-T     | 1 Nm                                         | ■                    | ■                    | —                    | —                                         | —                      | 24 V                     | 15 s                      | CQD24A-T <sup>1)</sup>   | 280                       | 280                      |
| ■                  | ■              |            |                                              | —                    | —                    | —                    | CQ24A-T                                   | 280                    |                          | 280                       | 280                      | 280                       |                          |
| —                  | —              |            |                                              | ■                    | —                    | —                    | 75 s                                      | CQ24A-MPL-T            | 280                      | 280                       | 280                      | 280                       |                          |
| ■                  | ■              |            |                                              | —                    | —                    | —                    | 230 V                                     | CQ230A-T               | 280                      | 280                       | 280                      | 280                       |                          |

<sup>1)</sup> Fast running actuators: Observe the sound power level according to the associated data sheet.

DN 15/20

Fail-safe actuators

|                                |                                               |
|--------------------------------|-----------------------------------------------|
| Field of use                   | Closed water systems (pH >7)                  |
| Fluid temperature              | 2...90°C                                      |
| Pipe connection                | External thread G (ISO 228-1)                 |
| Leakage rate                   | Air-bubble tight, leakage rate A (EN 12266-1) |
| Close-off pressure             | Δp <sub>s</sub> : 280 kPa                     |
| Max. differential pressure     | Δp <sub>max</sub> : 280 kPa                   |
| Permissible operating pressure | p <sub>s</sub> : 1600 kPa                     |



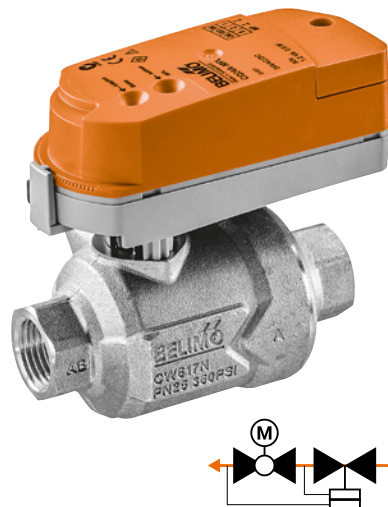
| Suitable actuators                                                                              | Nominal torque                                                                                    | Open/close | Communication MP-Bus | Nominal voltage<br>AC/DC 24 V<br>AC 230 V | Running time motor 90° | Actuator type             | PN 25                     |                          |                           |                          |
|-------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|------------|----------------------|-------------------------------------------|------------------------|---------------------------|---------------------------|--------------------------|---------------------------|--------------------------|
|                                                                                                 |                                                                                                   |            |                      |                                           |                        |                           | DN 15                     |                          | DN 20                     |                          |
|                                                                                                 |                                                                                                   |            |                      |                                           |                        |                           | K <sub>vs</sub><br>[m³/h] | Valve type               | K <sub>vs</sub><br>[m³/h] | Valve type               |
|                                                                                                 |                                                                                                   |            |                      |                                           |                        |                           | 2.3                       | C515Q-H                  | 3.6                       | C520Q-J                  |
|                                                                                                 |                                                                                                   |            |                      |                                           |                        |                           | Δp <sub>s</sub><br>kPa    | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa    | Δp <sub>max</sub><br>kPa |
| <br>CQK... | 1 Nm                                                                                              | ■          | —                    | 24 V                                      | 15 s                   | CQKD24A <sup>1)</sup>     | 280                       | 280                      | 280                       | 280                      |
|                                                                                                 |                                                                                                   | ■          | —                    |                                           | 75 s                   | CQK24A                    | 280                       | 280                      | 280                       | 280                      |
|                                                                                                 |                                                                                                   | —          | ■                    |                                           | 15 s                   | CQKD24A-MPL <sup>1)</sup> | 280                       | 280                      | 280                       | 280                      |
|                                                                                                 |                                                                                                   | —          | ■                    |                                           | 75 s                   | CQK24A-MPL                | 280                       | 280                      | 280                       | 280                      |
|                                                                                                 |                                                                                                   | ■          | —                    | 230 V                                     | 15 s                   | CQKD230A <sup>1)</sup>    | 280                       | 280                      | 280                       | 280                      |
|                                                                                                 |                                                                                                   | ■          | —                    |                                           | 75 s                   | CQK230A                   | 280                       | 280                      | 280                       | 280                      |
|                                                                                                 | <br>CQK...-T | 1 Nm       | ■                    | —                                         | 75 s                   | CQK24A-T                  | 280                       | 280                      | 280                       | 280                      |
| —                                                                                               |                                                                                                   |            | ■                    | CQK24A-MPL-T                              |                        | 280                       | 280                       | 280                      | 280                       |                          |
| ■                                                                                               |                                                                                                   |            | —                    | CQK230A-T                                 |                        | 280                       | 280                       | 280                      | 280                       |                          |
|                                                                                                 |                                                                                                   |            |                      |                                           |                        |                           |                           |                          |                           |                          |

<sup>1)</sup> Fast running actuators: Observe the sound power level according to the associated data sheet.  
<sup>2)</sup> Fail-safe actuator: The fail-safe position is NC (normally closed). The NO (normally open) version is available on request.

## DN 15...25

## Non fail-safe actuators

|                                |                                               |
|--------------------------------|-----------------------------------------------|
| Field of use                   | Closed water systems (pH >7)                  |
| Fluid temperature              | 2...90°C                                      |
| Pipe connection                | Internal thread Rp (ISO 7-1)                  |
| Leakage rate                   | Air-bubble tight, leakage rate A (EN 12266-1) |
| Flow characteristic            | Equal percentage                              |
| Close-off pressure             | $\Delta p_s$ : 1400 kPa                       |
| Max. differential pressure     | $\Delta p_{max}$ : 350 kPa                    |
| Permissible operating pressure | $p_s$ : 1600 kPa                              |



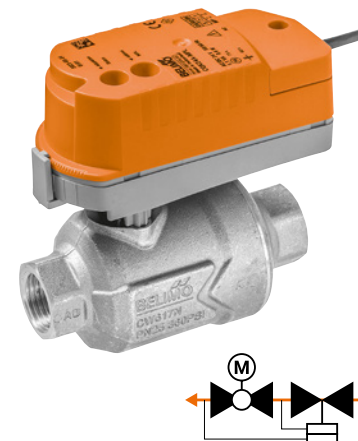
| Suitable actuators                                                                  | Nominal torque | Open/close | 3-point | Modulating (2...10 V) | Modulating (0.5...10 V) | Communication MP-Bus | Communication Modbus | Communication BACnet | Nominal voltage<br>AC/DC 24 V<br>AC 230 V | Running time motor 90° | Actuator type             | PN 25                      |                          |                            |                          |                            |                          |
|-------------------------------------------------------------------------------------|----------------|------------|---------|-----------------------|-------------------------|----------------------|----------------------|----------------------|-------------------------------------------|------------------------|---------------------------|----------------------------|--------------------------|----------------------------|--------------------------|----------------------------|--------------------------|
|                                                                                     |                |            |         |                       |                         |                      |                      |                      |                                           |                        |                           | DN 15                      |                          | DN 20                      |                          | DN 25                      |                          |
|                                                                                     |                |            |         |                       |                         |                      |                      |                      |                                           |                        |                           | V' <sub>nom</sub><br>[l/h] | Valve type               | V' <sub>nom</sub><br>[l/h] | Valve type               | V' <sub>nom</sub><br>[l/h] | Valve type               |
|                                                                                     |                |            |         |                       |                         |                      |                      |                      |                                           |                        |                           | 210                        | C215QP-B<br>C215QPT-B    | 980                        | C220QP-F<br>C220QPT-F    | 2100                       | C225QPT-G                |
|                                                                                     |                |            |         |                       |                         |                      |                      |                      |                                           |                        |                           | Δp <sub>s</sub><br>kPa     | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa     | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa     | Δp <sub>max</sub><br>kPa |
|  | 1 Nm           | ■          | ■       |                       |                         |                      |                      |                      | 24 V                                      | 15 s                   | CQD24A <sup>1)</sup>      | 1400                       | 350                      | 1400                       | 350                      | 1400                       | 350                      |
|                                                                                     |                | ■          | ■       |                       |                         |                      |                      |                      |                                           | 75 s                   | CQ24A                     | 1400                       | 350                      | 1400                       | 350                      | 1400                       | 350                      |
|                                                                                     |                |            |         | ■                     |                         |                      |                      |                      |                                           | 15 s                   | CQD24A-SR <sup>1)</sup>   | 1400                       | 350                      | 1400                       | 350                      | 1400                       | 350                      |
|                                                                                     |                |            |         | ■                     |                         |                      |                      |                      |                                           | 75 s                   | CQ24A-SR                  | 1400                       | 350                      | 1400                       | 350                      | 1400                       | 350                      |
|                                                                                     |                |            |         |                       | ■                       |                      |                      |                      |                                           | 15 s                   | CQD24A-SZ <sup>1)</sup>   | 1400                       | 350                      | 1400                       | 350                      | 1400                       | 350                      |
|                                                                                     |                |            |         |                       | ■                       |                      |                      |                      |                                           | 75 s                   | CQ24A-SZ                  | 1400                       | 350                      | 1400                       | 350                      | 1400                       | 350                      |
|                                                                                     |                |            |         |                       |                         | ■                    |                      |                      |                                           | 15 s                   | CQD24A-MPL <sup>1)</sup>  | 1400                       | 350                      | 1400                       | 350                      | 1400                       | 350                      |
|                                                                                     |                |            |         |                       |                         | ■                    |                      |                      |                                           | 75 s                   | CQ24A-MPL                 | 1400                       | 350                      | 1400                       | 350                      | 1400                       | 350                      |
|                                                                                     |                |            |         |                       |                         |                      | ■                    | ■                    |                                           | 15 s                   | CQD24A-BAC                | 1400                       | 350                      | 1400                       | 350                      | 1400                       | 350                      |
|                                                                                     |                |            |         |                       |                         |                      | ■                    | ■                    |                                           | 75 s                   | CQ24A-BAC                 | 1400                       | 350                      | 1400                       | 350                      | 1400                       | 350                      |
|                                                                                     |                | ■          | ■       |                       |                         |                      |                      |                      | 230 V                                     | 15 s                   | CQD230A <sup>1)</sup>     | 1400                       | 350                      | 1400                       | 350                      | 1400                       | 350                      |
|                                                                                     |                | ■          | ■       |                       |                         |                      |                      |                      |                                           | 35 s                   | CQC230A <sup>1)</sup>     | 1400                       | 350                      | 1400                       | 350                      | 1400                       | 350                      |
|                                                                                     |                | ■          | ■       |                       |                         |                      |                      |                      |                                           | 75 s                   | CQ230A                    | 1400                       | 350                      | 1400                       | 350                      | 1400                       | 350                      |
|  | 1 Nm           | ■          | ■       |                       |                         |                      |                      |                      | 24 V                                      | 15 s                   | CQD24A-T <sup>1)</sup>    | 1400                       | 350                      | 1400                       | 350                      | 1400                       | 350                      |
|                                                                                     |                | ■          | ■       |                       |                         |                      |                      |                      |                                           | 75 s                   | CQ24A-T                   | 1400                       | 350                      | 1400                       | 350                      | 1400                       | 350                      |
|                                                                                     |                |            |         | ■                     |                         |                      |                      |                      |                                           | 15 s                   | CQD24A-SR-T <sup>1)</sup> | 1400                       | 350                      | 1400                       | 350                      | 1400                       | 350                      |
|                                                                                     |                |            |         | ■                     |                         |                      |                      |                      |                                           | 75 s                   | CQ24A-SR-T                | 1400                       | 350                      | 1400                       | 350                      | 1400                       | 350                      |
|                                                                                     |                |            |         |                       | ■                       |                      |                      |                      |                                           | 15 s                   | CQD24A-SZ-T <sup>1)</sup> | 1400                       | 350                      | 1400                       | 350                      | 1400                       | 350                      |
|                                                                                     |                |            |         |                       | ■                       |                      |                      |                      |                                           | 75 s                   | CQ24A-SZ-T                | 1400                       | 350                      | 1400                       | 350                      | 1400                       | 350                      |
|                                                                                     |                |            |         |                       |                         | ■                    |                      |                      |                                           | 15 s                   | CQD24A-MPL-T              | 1400                       | 350                      | 1400                       | 350                      | 1400                       | 350                      |
|                                                                                     |                |            |         |                       |                         | ■                    |                      |                      |                                           | 75 s                   | CQ24A-MPL-T               | 1400                       | 350                      | 1400                       | 350                      | 1400                       | 350                      |
|                                                                                     |                |            |         |                       |                         |                      | ■                    |                      |                                           | 15 s                   | CQD230A-T                 | 1400                       | 350                      | 1400                       | 350                      | 1400                       | 350                      |
|                                                                                     |                |            |         |                       |                         |                      | ■                    |                      |                                           | 75 s                   | CQ230A-T                  | 1400                       | 350                      | 1400                       | 350                      | 1400                       | 350                      |

<sup>1)</sup> Fast running actuators: Observe the sound power level according to the associated data sheet.

## DN 15...25

## Fail-safe actuators

|                                |                                               |
|--------------------------------|-----------------------------------------------|
| Field of use                   | Closed water systems (pH >7)                  |
| Fluid temperature              | 2...90°C                                      |
| Pipe connection                | Internal thread Rp (ISO 7-1)                  |
| Leakage rate                   | Air-bubble tight, leakage rate A (EN 12266-1) |
| Flow characteristic            | Equal percentage                              |
| Close-off pressure             | $\Delta p_s$ : 1400 kPa                       |
| Max. differential pressure     | $\Delta p_{max}$ : 350 kPa                    |
| Permissible operating pressure | $p_s$ : 1600 kPa                              |



| Suitable actuators                                                | Nominal torque          | Open/close          | Modulating (2...10 V)   | Modulating (0.5...10 V) | Communication MP-Bus    | Nominal voltage<br>AC/DC 24 V<br>AC 230 V | Running time motor 90° | Actuator type                 | PN 25               |                       |                     |                       |                     |            |
|-------------------------------------------------------------------|-------------------------|---------------------|-------------------------|-------------------------|-------------------------|-------------------------------------------|------------------------|-------------------------------|---------------------|-----------------------|---------------------|-----------------------|---------------------|------------|
|                                                                   |                         |                     |                         |                         |                         |                                           |                        |                               | DN 15               |                       | DN 20               |                       | DN 25               |            |
|                                                                   |                         |                     |                         |                         |                         |                                           |                        |                               | $V'_{nom}$<br>[l/h] | Valve type            | $V'_{nom}$<br>[l/h] | Valve type            | $V'_{nom}$<br>[l/h] | Valve type |
|                                                                   |                         |                     |                         |                         |                         |                                           |                        |                               | 210                 | C215QP-B<br>C215QPT-B | 980                 | C220QP-F<br>C220QPT-F | 2100                | C225QPT-G  |
|                                                                   |                         |                     |                         |                         |                         |                                           |                        |                               | 420                 | C215QP-D<br>C215QPT-D | 980                 | C220QP-F<br>C220QPT-F | 2100                | C225QPT-G  |
| $\Delta p_s$<br>kPa                                               | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa     | $\Delta p_{max}$<br>kPa |                                           |                        |                               |                     |                       |                     |                       |                     |            |
| Fail-safe actuators NC/NO <sup>2</sup>                            |                         |                     |                         |                         |                         |                                           |                        |                               |                     |                       |                     |                       |                     |            |
| CQK..                                                             | 1 Nm                    | ■                   | —                       | —                       | —                       | 24 V                                      | 15 s                   | CQKD24A <sup>1)</sup>         | 1400                | 350                   | 1400                | 350                   | 1400                | 350        |
|                                                                   |                         | ■                   | —                       | —                       | —                       |                                           | 75 s                   | CQK24A                        | 1400                | 350                   | 1400                | 350                   | 1400                | 350        |
|                                                                   |                         | —                   | ■                       | —                       | —                       |                                           | 15 s                   | CQKD24A-SR <sup>1)</sup>      | 1400                | 350                   | 1400                | 350                   | 1400                | 350        |
|                                                                   |                         | —                   | ■                       | —                       | —                       |                                           | 75 s                   | CQK24A-SR                     | 1400                | 350                   | 1400                | 350                   | 1400                | 350        |
|                                                                   |                         | —                   | —                       | ■                       | —                       |                                           | 15 s                   | CQKD24A-SZ.1 <sup>1) 3)</sup> | 1400                | 350                   | 1400                | 350                   | 1400                | 350        |
|                                                                   |                         | —                   | —                       | ■                       | —                       |                                           | 75 s                   | CQK24A-SZ                     | 1400                | 350                   | 1400                | 350                   | 1400                | 350        |
|                                                                   |                         | —                   | —                       | —                       | ■                       |                                           | 15 s                   | CQKD24A-MPL <sup>1)</sup>     | 1400                | 350                   | 1400                | 350                   | 1400                | 350        |
|                                                                   |                         | —                   | —                       | —                       | ■                       |                                           | 75 s                   | CQK24A-MPL                    | 1400                | 350                   | 1400                | 350                   | 1400                | 350        |
|                                                                   |                         | ■                   | —                       | —                       | —                       | 230 V                                     | 15 s                   | CQKD230A <sup>1)</sup>        | 1400                | 350                   | 1400                | 350                   | 1400                | 350        |
|                                                                   |                         | ■                   | —                       | —                       | —                       |                                           | 75 s                   | CQK230A                       | 1400                | 350                   | 1400                | 350                   | 1400                | 350        |
| Fail-safe actuators NC/NO <sup>2)</sup> with connecting terminals |                         |                     |                         |                         |                         |                                           |                        |                               |                     |                       |                     |                       |                     |            |
| CQK...T                                                           | 1 Nm                    | ■                   | —                       | —                       | —                       | 24 V                                      | 75 s                   | CQK24A-T                      | 1400                | 350                   | 1400                | 350                   | 1400                | 350        |
|                                                                   |                         | —                   | ■                       | —                       | —                       |                                           |                        | CQK24A-SR-T                   | 1400                | 350                   | 1400                | 350                   | 1400                | 350        |
|                                                                   |                         | —                   | —                       | ■                       | —                       |                                           |                        | CQK24A-MPL-T                  | 1400                | 350                   | 1400                | 350                   | 1400                | 350        |
|                                                                   |                         | ■                   | —                       | —                       | —                       |                                           |                        | CQK230A-T                     | 1400                | 350                   | 1400                | 350                   | 1400                | 350        |

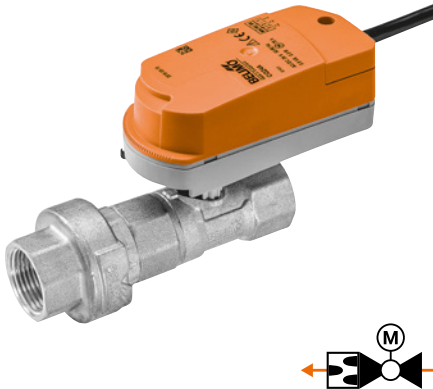
<sup>1)</sup> Fast running actuators: Observe the sound power level according to the associated data sheet.<sup>2)</sup> Fail-safe actuator: The fail-safe position is NC (normally closed). The NO (normally open) version is available on request.<sup>3)</sup> Actuator is delivered in multipack with 36 pieces.



DN 15...25

Non fail-safe actuators

|                                |                                               |
|--------------------------------|-----------------------------------------------|
| Field of use                   | Closed water systems (pH >7)                  |
| Fluid temperature              | 2...60°C                                      |
| Pipe connection                | Internal thread Rp (ISO 7-1)                  |
| Leakage rate                   | Air-bubble tight, leakage rate A (EN 12266-1) |
| Close-off pressure             | $\Delta p_s$ : 520 kPa                        |
| Max. differential pressure     | $\Delta p_{max}$ : 280 kPa                    |
| Permissible operating pressure | $p_s$ : 1600 kPa                              |



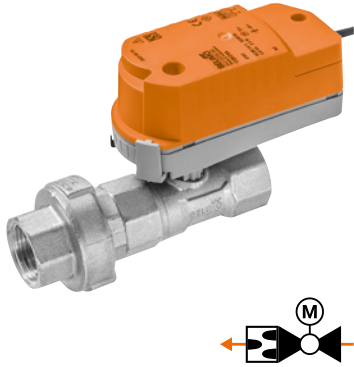
|                    |                                              |            |         |                      |                      | PN 25                |                                           |                        |                          |                     |                         |
|--------------------|----------------------------------------------|------------|---------|----------------------|----------------------|----------------------|-------------------------------------------|------------------------|--------------------------|---------------------|-------------------------|
|                    |                                              |            |         |                      |                      | DN 15                |                                           | DN 20                  |                          | DN 25               |                         |
|                    |                                              |            |         |                      |                      | $V'_{nom}$<br>[l/h]  | Valve type                                | $V'_{nom}$<br>[l/h]    | Valve type               |                     |                         |
|                    |                                              |            |         |                      |                      | 290                  | C215QFL-C                                 | 1200                   | C220QFL-F6               |                     |                         |
| Suitable actuators | Nominal torque                               | Open/close | 3-point | Communication MP-Bus | Communication Modbus | Communication BACnet | Nominal voltage<br>AC/DC 24 V<br>AC 230 V | Running time motor 90° | Actuator type            | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa |
|                    |                                              |            |         |                      |                      |                      |                                           |                        |                          |                     |                         |
|                    |                                              |            |         |                      |                      |                      |                                           |                        |                          |                     |                         |
|                    |                                              |            |         |                      |                      |                      |                                           |                        |                          |                     |                         |
|                    | Standard actuators                           |            |         |                      |                      |                      |                                           |                        |                          | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa |
|                    |                                              |            |         |                      |                      |                      |                                           |                        |                          |                     |                         |
|                    |                                              |            |         |                      |                      |                      |                                           |                        |                          |                     |                         |
|                    |                                              |            |         |                      |                      |                      |                                           |                        |                          |                     |                         |
| CQ..               | 1 Nm                                         | ■          | ■       |                      |                      |                      | 24 V                                      | 15 s                   | CQD24A <sup>1)</sup>     | 520                 | 280                     |
|                    |                                              |            |         |                      |                      |                      |                                           |                        | CQ24A                    | 520                 | 280                     |
|                    |                                              |            |         |                      |                      |                      |                                           |                        | CQD24A-MPL <sup>1)</sup> | 520                 | 280                     |
|                    |                                              |            |         |                      |                      |                      |                                           |                        | CQ24A-MPL                | 520                 | 280                     |
| LR..               | 5 Nm                                         | ■          | ■       |                      |                      |                      | 230 V                                     | 15 s                   | CQD230A <sup>1)</sup>    | 520                 | 280                     |
|                    |                                              |            |         |                      |                      |                      |                                           |                        | CQC230A <sup>1)</sup>    | 520                 | 280                     |
|                    |                                              |            |         |                      |                      |                      |                                           |                        | CQ230A                   | 520                 | 280                     |
|                    |                                              |            |         |                      |                      |                      |                                           |                        | LR24A                    | 520                 | 280                     |
| CQ..-T             | 1 Nm                                         | ■          | ■       |                      |                      |                      | 24 V                                      | 15 s                   | CQD24A-T <sup>1)</sup>   | 520                 | 280                     |
|                    |                                              |            |         |                      |                      |                      |                                           |                        | CQ24A-T                  | 520                 | 280                     |
|                    |                                              |            |         |                      |                      |                      |                                           |                        | CQ24A-MPL-T              | 520                 | 280                     |
|                    |                                              |            |         |                      |                      |                      |                                           |                        | CQ230A-T                 | 520                 | 280                     |
|                    | Standard actuators with connecting terminals |            |         |                      |                      |                      |                                           |                        |                          | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa |
|                    |                                              |            |         |                      |                      |                      |                                           |                        |                          |                     |                         |
|                    |                                              |            |         |                      |                      |                      |                                           |                        |                          |                     |                         |
|                    |                                              |            |         |                      |                      |                      |                                           |                        |                          |                     |                         |
|                    | 5 Nm                                         | ■          | ■       |                      |                      |                      | 24 V                                      | 90 s                   | LR24A-TP                 | 520                 | 280                     |
|                    |                                              |            |         |                      |                      |                      |                                           |                        | LR230A-TP                | 520                 | 280                     |
|                    |                                              |            |         |                      |                      |                      |                                           |                        |                          |                     |                         |
|                    |                                              |            |         |                      |                      |                      |                                           |                        |                          |                     |                         |

<sup>1)</sup> Fast running actuators: Observe the sound power level according to the associated data sheet.

DN 15...25

Fail-safe actuators

|                                |                                               |
|--------------------------------|-----------------------------------------------|
| Field of use                   | Closed water systems (pH >7)                  |
| Fluid temperature              | 2...60°C                                      |
| Pipe connection                | Internal thread Rp (ISO 7-1)                  |
| Leakage rate                   | Air-bubble tight, leakage rate A (EN 12266-1) |
| Close-off pressure             | $\Delta p_s$ : 520 kPa                        |
| Max. differential pressure     | $\Delta p_{max}$ : 280 kPa                    |
| Permissible operating pressure | $p_s$ : 1600 kPa                              |

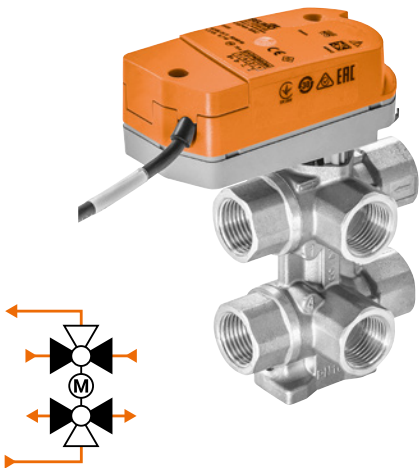


|                    |                                                                   |            |                      |                                           |                        | PN 25                     |                     |                         |                     |                         |         |
|--------------------|-------------------------------------------------------------------|------------|----------------------|-------------------------------------------|------------------------|---------------------------|---------------------|-------------------------|---------------------|-------------------------|---------|
|                    |                                                                   |            |                      |                                           |                        | DN 15                     |                     | DN 20                   |                     | DN 25                   |         |
|                    |                                                                   |            |                      |                                           |                        | $V'_{nom}$<br>[l/h]       | Valve type          | $V'_{nom}$<br>[l/h]     | Valve type          |                         |         |
|                    |                                                                   |            |                      |                                           |                        | 290                       | C215QFL-C           | 1200                    | C220QFL-F6          |                         |         |
| Suitable actuators | Nominal torque                                                    | Open/close | Communication MP-Bus | Nominal voltage<br>AC/DC 24 V<br>AC 230 V | Running time motor 90° | Actuator type             | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa |         |
|                    |                                                                   |            |                      |                                           |                        |                           |                     |                         |                     |                         |         |
|                    |                                                                   |            |                      |                                           |                        |                           |                     |                         |                     |                         |         |
|                    |                                                                   |            |                      |                                           |                        |                           |                     |                         |                     |                         |         |
| CQK..              | 1 Nm                                                              | ■          |                      | 24 V                                      | 15 s                   | CQKD24A <sup>1)</sup>     | 520                 | 280                     | 520                 | 280                     |         |
|                    |                                                                   |            |                      |                                           |                        | CQK24A                    | 520                 | 280                     | 520                 | 280                     |         |
|                    |                                                                   |            |                      |                                           |                        | CQKD24A-MPL <sup>1)</sup> | 520                 | 280                     | 520                 | 280                     |         |
|                    |                                                                   |            |                      |                                           |                        | CQK24A-MPL                | 520                 | 280                     | 520                 | 280                     |         |
| LRF..              | 4 Nm                                                              | ■          |                      | 230 V                                     | 15 s                   | CQKD230A <sup>1)</sup>    | 520                 | 280                     | 520                 | 280                     |         |
|                    |                                                                   |            |                      |                                           |                        | CQK230A                   | 520                 | 280                     | 520                 | 280                     |         |
|                    |                                                                   |            |                      |                                           |                        | LRF24                     |                     |                         |                     |                         | 520 280 |
|                    |                                                                   |            |                      |                                           |                        | LRF230                    |                     |                         |                     |                         | 520 280 |
| CQK..-T            | 1 Nm                                                              | ■          |                      | 24 V                                      | 75 s                   | CQK24A-T                  | 520                 | 280                     | 520                 | 280                     |         |
|                    |                                                                   |            |                      |                                           |                        | CQK24A-MPL-T              | 520                 | 280                     | 520                 | 280                     |         |
|                    |                                                                   |            |                      |                                           |                        | CQK230A-T                 | 520                 | 280                     | 520                 | 280                     |         |
|                    |                                                                   |            |                      |                                           |                        |                           |                     |                         |                     |                         |         |
|                    | Fail-safe actuators NC/NO <sup>2)</sup> with connecting terminals |            |                      |                                           |                        |                           | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa |         |
|                    |                                                                   |            |                      |                                           |                        |                           |                     |                         |                     |                         |         |
|                    |                                                                   |            |                      |                                           |                        |                           |                     |                         |                     |                         |         |
|                    |                                                                   |            |                      |                                           |                        |                           |                     |                         |                     |                         |         |

<sup>1)</sup> Fast running actuators: Observe the sound power level according to the associated data sheet.  
<sup>2)</sup> Fail-safe actuator: The fail-safe position is NC (normally closed). The NO (normally open) version is available on request.

DN 15

|                                |                                                                             |
|--------------------------------|-----------------------------------------------------------------------------|
| Field of use                   | Closed water systems (pH >7)                                                |
| Fluid temperature              | 6...80°C                                                                    |
| Pipe connection                | Internal thread Rp (ISO 7-1)                                                |
| Leakage rate                   | Air-bubble tight, leakage rate A (EN 12266-1)                               |
| Flow characteristic            | Linear: Sequence I: 0...30°<br>Dead zone: 30...60°<br>Sequence II: 60...90° |
| Close-off pressure             | Δp <sub>s</sub> : 350 kPa                                                   |
| Max. differential pressure     | Δp <sub>max</sub> : 100 kPa                                                 |
| Permissible operating pressure | p <sub>s</sub> : 1600 kPa                                                   |



| Suitable actuators                                                                         | Nominal torque                               | Modulating (2...10 V) | Modulating (0.5...10 V) | Communication MP-Bus | Communication Modbus | Communication BACnet | Nominal voltage AC/DC 24 V | Running time motor 90° | Actuator type |  | PN 16                              |                                     |                       |                                    |                                     |                 |                                    |                                     |                  |
|--------------------------------------------------------------------------------------------|----------------------------------------------|-----------------------|-------------------------|----------------------|----------------------|----------------------|----------------------------|------------------------|---------------|-------------------------------------------------------------------------------------|------------------------------------|-------------------------------------|-----------------------|------------------------------------|-------------------------------------|-----------------|------------------------------------|-------------------------------------|------------------|
|                                                                                            |                                              |                       |                         |                      |                      |                      |                            |                        |               |                                                                                     | DN 15                              |                                     |                       | DN 15                              |                                     |                 |                                    |                                     |                  |
|                                                                                            |                                              |                       |                         |                      |                      |                      |                            |                        |               |                                                                                     | K <sub>vs</sub> [m³/h] Se-quence I | K <sub>vs</sub> [m³/h] Se-quence II | Valve type            | K <sub>vs</sub> [m³/h] Se-quence I | K <sub>vs</sub> [m³/h] Se-quence II | Valve type      | K <sub>vs</sub> [m³/h] Se-quence I | K <sub>vs</sub> [m³/h] Se-quence II | Valve type       |
|                                                                                            |                                              |                       |                         |                      |                      |                      |                            |                        |               |                                                                                     | 0.25                               | 0.25                                | R3015-P25-P25-B1      | 0.4                                | 0.25                                | R3015-P4-P25-B1 | 0.63                               | 0.25                                | R3015-P63-P25-B1 |
|                                                                                            |                                              |                       |                         |                      |                      |                      |                            |                        |               |                                                                                     | 0.25                               | 0.4                                 | R3015-P25-P4-B1       | 0.4                                | 0.4                                 | R3015-P4-P4-B1  | 0.63                               | 0.4                                 | R3015-P63-P4-B1  |
|                                                                                            |                                              |                       |                         |                      |                      |                      |                            |                        |               | Δp <sub>s</sub> kPa                                                                 | Δp <sub>max</sub> kPa              | Δp <sub>s</sub> kPa                 | Δp <sub>max</sub> kPa | Δp <sub>s</sub> kPa                | Δp <sub>max</sub> kPa               |                 |                                    |                                     |                  |
|  CQ..   | Standard actuators                           |                       |                         |                      |                      |                      |                            |                        |               |                                                                                     |                                    |                                     |                       |                                    |                                     |                 |                                    |                                     |                  |
|                                                                                            | 1 Nm                                         | ■                     |                         |                      |                      |                      | 24 V                       | 75 s                   | CQ24A-SR      | 350                                                                                 | 100                                | 350                                 | 100                   | 350                                | 100                                 |                 |                                    |                                     |                  |
|                                                                                            |                                              |                       | ■                       |                      |                      |                      |                            |                        | CQ24A-SZ      | 350                                                                                 | 100                                | 350                                 | 100                   | 350                                | 100                                 |                 |                                    |                                     |                  |
|                                                                                            |                                              |                       |                         | ■                    |                      |                      |                            |                        | CQ24A-MPL     | 350                                                                                 | 100                                | 350                                 | 100                   | 350                                | 100                                 |                 |                                    |                                     |                  |
|                                                                                            |                                              |                       |                         | ■                    | ■                    | CQ24A-BAC            |                            |                        | 350           | 100                                                                                 | 350                                | 100                                 | 350                   | 100                                |                                     |                 |                                    |                                     |                  |
|  CQ..-T | Standard actuators with connecting terminals |                       |                         |                      |                      |                      |                            |                        |               |                                                                                     |                                    |                                     |                       |                                    |                                     |                 |                                    |                                     |                  |
|                                                                                            | 1 Nm                                         | ■                     |                         |                      |                      |                      | 24 V                       | 75 s                   | CQ24A-SR-T    | 350                                                                                 | 100                                | 350                                 | 100                   | 350                                | 100                                 |                 |                                    |                                     |                  |
|                                                                                            |                                              |                       | ■                       |                      |                      |                      |                            |                        | CQ24A-SZ-T    | 350                                                                                 | 100                                | 350                                 | 100                   | 350                                | 100                                 |                 |                                    |                                     |                  |
|                                                                                            |                                              |                       |                         | ■                    |                      |                      |                            |                        | CQ24A-MPL-T   | 350                                                                                 | 100                                | 350                                 | 100                   | 350                                | 100                                 |                 |                                    |                                     |                  |
|                                                                                            |                                              |                       |                         |                      |                      |                      |                            |                        |               |                                                                                     |                                    |                                     |                       |                                    |                                     |                 |                                    |                                     |                  |

DN 15

Field of use

Closed water systems (pH >7)

Fluid temperature

6...80°C

Pipe connection

Internal thread Rp (ISO 7-1)

Leakage rate

Air-bubble tight, leakage rate A (EN 12266-1)

Flow characteristic

Linear: Sequence I: 0...30°  
Dead zone: 30...60°  
Sequence II: 60...90°

Close-off pressure

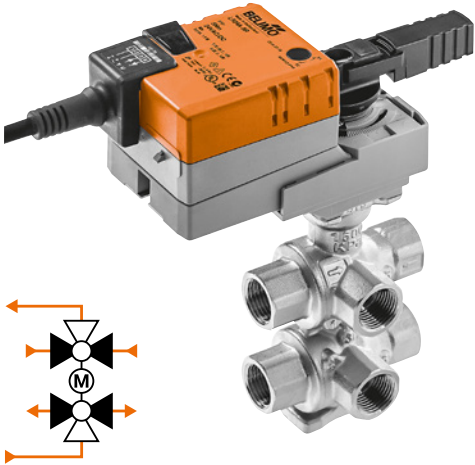
Δp<sub>s</sub>: 350 kPa

Max. differential pressure

Δp<sub>max</sub>: 100 kPa

Permissible operating pressure

p<sub>s</sub>: 1600 kPa

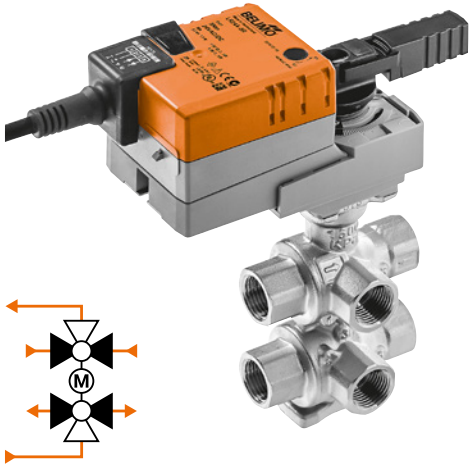


| →                   | PN 16                                 |                                        |                         |                                       |                                        |                     |                                       |                                        |                         |                                       |                                        |                     |                         |                  |                  |     |                  |
|---------------------|---------------------------------------|----------------------------------------|-------------------------|---------------------------------------|----------------------------------------|---------------------|---------------------------------------|----------------------------------------|-------------------------|---------------------------------------|----------------------------------------|---------------------|-------------------------|------------------|------------------|-----|------------------|
|                     | DN 15                                 |                                        |                         |                                       |                                        |                     | DN 15                                 |                                        |                         |                                       |                                        |                     |                         |                  |                  |     |                  |
|                     | $K_{vs}$<br>[m³/h]<br>Se-<br>quence I | $K_{vs}$<br>[m³/h]<br>Se-<br>quence II | Valve type              | $K_{vs}$<br>[m³/h]<br>Se-<br>quence I | $K_{vs}$<br>[m³/h]<br>Se-<br>quence II | Valve type          | $K_{vs}$<br>[m³/h]<br>Se-<br>quence I | $K_{vs}$<br>[m³/h]<br>Se-<br>quence II | Valve type              | $K_{vs}$<br>[m³/h]<br>Se-<br>quence I | $K_{vs}$<br>[m³/h]<br>Se-<br>quence II | Valve type          |                         |                  |                  |     |                  |
|                     | 0.25                                  | 0.25                                   | R3015-P25-P25-B2        | 0.4                                   | 0.25                                   | R3015-P4-P25-B2     | 0.63                                  | 0.25                                   | R3015-P63-P25-B2        | 1                                     | 0.25                                   | R3015-1-P25-B2      | 1.3                     | 0.25             | R3015-1P3-P25-B2 | 1.8 | 0.25             |
| 0.4                 |                                       | R3015-P25-P4-B2                        | 0.4                     |                                       | R3015-P4-P4-B2                         | 0.4                 |                                       | R3015-P63-P4-B2                        | 0.4                     |                                       | R3015-1-P4-B2                          | 0.4                 |                         | R3015-1P3-P4-B2  | 0.4              |     | R3015-1P8-P4-B2  |
| 0.63                |                                       | R3015-P25-P63-B2                       | 0.63                    |                                       | R3015-P4-P63-B2                        | 0.63                |                                       | R3015-P63-P63-B2                       | 0.63                    |                                       | R3015-1-P63-B2                         | 0.63                |                         | R3015-1P3-P63-B2 | 0.63             |     | R3015-1P8-P63-B2 |
| 1                   |                                       | R3015-P25-1-B2                         | 1                       |                                       | R3015-P4-1-B2                          | 1                   |                                       | R3015-P63-1-B2                         | 1                       |                                       | R3015-1-1-B2                           | 1                   |                         | R3015-1P3-1-B2   | 1                |     | R3015-1P8-1-B2   |
| 1.3                 |                                       | R3015-P25-1P3-B2                       | 1.3                     |                                       | R3015-P4-1P3-B2                        | 1.3                 |                                       | R3015-P63-1P3-B2                       | 1.3                     |                                       | R3015-1-1P3-B2                         | 1.3                 |                         | R3015-1P3-1P3-B2 | 1.3              |     | R3015-1P8-1P3-B2 |
| 1.8                 | R3015-P25-1P8-B2                      | 1.8                                    | R3015-P4-1P8-B2         | 1.8                                   | R3015-P63-1P8-B2                       | 1.8                 | R3015-1-1P8-B2                        | 1.8                                    | R3015-1P3-1P8-B2        | 1.8                                   | R3015-1P8-1P8-B2                       |                     |                         |                  |                  |     |                  |
| $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa               | $\Delta p_s$<br>kPa                    | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa                   | $\Delta p_{max}$<br>kPa                | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa               | $\Delta p_s$<br>kPa                    | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa                   | $\Delta p_{max}$<br>kPa                | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa |                  |                  |     |                  |
| LR                  | 350                                   | 100                                    | 350                     | 100                                   | 350                                    | 100                 | 350                                   | 100                                    | 350                     | 100                                   | 350                                    | 100                 | 350                     | 100              |                  |     |                  |
| SZ                  | 350                                   | 100                                    | 350                     | 100                                   | 350                                    | 100                 | 350                                   | 100                                    | 350                     | 100                                   | 350                                    | 100                 | 350                     | 100              |                  |     |                  |
| MP 1)               | 350                                   | 100                                    | 350                     | 100                                   | 350                                    | 100                 | 350                                   | 100                                    | 350                     | 100                                   | 350                                    | 100                 | 350                     | 100              |                  |     |                  |
| MOD                 | 350                                   | 100                                    | 350                     | 100                                   | 350                                    | 100                 | 350                                   | 100                                    | 350                     | 100                                   | 350                                    | 100                 | 350                     | 100              |                  |     |                  |
| KNX                 | 350                                   | 100                                    | 350                     | 100                                   | 350                                    | 100                 | 350                                   | 100                                    | 350                     | 100                                   | 350                                    | 100                 | 350                     | 100              |                  |     |                  |
| PL1                 | 350                                   | 100                                    | 350                     | 100                                   | 350                                    | 100                 | 350                                   | 100                                    | 350                     | 100                                   | 350                                    | 100                 | 350                     | 100              |                  |     |                  |
| LR-TP               | 350                                   | 100                                    | 350                     | 100                                   | 350                                    | 100                 | 350                                   | 100                                    | 350                     | 100                                   | 350                                    | 100                 | 350                     | 100              |                  |     |                  |
| SZ-TP               | 350                                   | 100                                    | 350                     | 100                                   | 350                                    | 100                 | 350                                   | 100                                    | 350                     | 100                                   | 350                                    | 100                 | 350                     | 100              |                  |     |                  |
| MP-TP 1)            | 350                                   | 100                                    | 350                     | 100                                   | 350                                    | 100                 | 350                                   | 100                                    | 350                     | 100                                   | 350                                    | 100                 | 350                     | 100              |                  |     |                  |

<sup>1)</sup> Control, operating range, feedback, running time, and other functions configurable on MP types with Belimo Assistant 2.

DN 20

|                                |                                                                             |
|--------------------------------|-----------------------------------------------------------------------------|
| Field of use                   | Closed water systems (pH >7)                                                |
| Fluid temperature              | 6...80°C                                                                    |
| Pipe connection                | Internal thread Rp (ISO 7-1)                                                |
| Leakage rate                   | Air-bubble tight, leakage rate A (EN 12266-1)                               |
| Flow characteristic            | Linear: Sequence I: 0...30°<br>Dead zone: 30...60°<br>Sequence II: 60...90° |
| Close-off pressure             | Δp <sub>s</sub> : 350 kPa                                                   |
| Max. differential pressure     | Δp <sub>max</sub> : 100 kPa                                                 |
| Permissible operating pressure | p <sub>s</sub> : 1600 kPa                                                   |

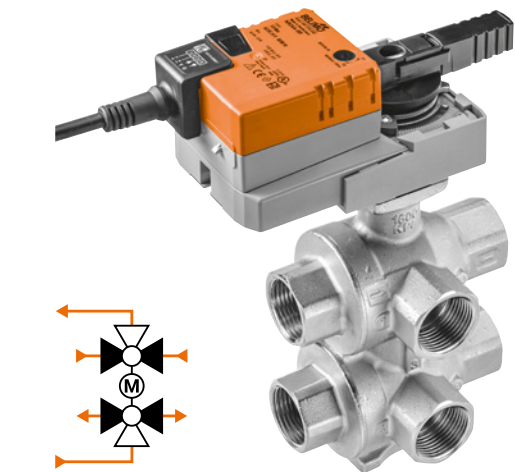


| Suitable actuators                           | Nominal torque          | Modulating (2...10 V)               | Modulating (0.5...10 V)             | Communication MP-Bus                | Communication Modbus                | Communication BACnet                | Communication KNX       | Nominal voltage AC/DC 24 V | Running time motor 90°  | Actuator type             | PN 16                                    |                                           |                         |                                          |                                           |            | PN 16         |                |            |               |                |            |               |                |            |  |  |  |  |  |  |
|----------------------------------------------|-------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------|----------------------------|-------------------------|---------------------------|------------------------------------------|-------------------------------------------|-------------------------|------------------------------------------|-------------------------------------------|------------|---------------|----------------|------------|---------------|----------------|------------|---------------|----------------|------------|--|--|--|--|--|--|
|                                              |                         |                                     |                                     |                                     |                                     |                                     |                         |                            |                         |                           | DN 20                                    |                                           |                         |                                          |                                           |            | DN 20         |                |            |               |                |            |               |                |            |  |  |  |  |  |  |
|                                              |                         |                                     |                                     |                                     |                                     |                                     |                         |                            |                         |                           | $K_{vs}$<br>[m³/h]<br>Se-<br>quence<br>I | $K_{vs}$<br>[m³/h]<br>Se-<br>quence<br>II | Valve type              | $K_{vs}$<br>[m³/h]<br>Se-<br>quence<br>I | $K_{vs}$<br>[m³/h]<br>Se-<br>quence<br>II | Valve type | Sequence<br>I | Sequence<br>II | Valve type | Sequence<br>I | Sequence<br>II | Valve type | Sequence<br>I | Sequence<br>II | Valve type |  |  |  |  |  |  |
|                                              |                         |                                     |                                     |                                     |                                     |                                     |                         |                            |                         |                           |                                          |                                           |                         |                                          |                                           |            |               |                |            |               |                |            |               |                |            |  |  |  |  |  |  |
|                                              |                         |                                     |                                     |                                     |                                     |                                     |                         |                            |                         |                           |                                          |                                           |                         |                                          |                                           |            |               |                |            |               |                |            |               |                |            |  |  |  |  |  |  |
| $\Delta p_s$<br>kPa                          | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa                 | $\Delta p_{max}$<br>kPa             | $\Delta p_s$<br>kPa                 | $\Delta p_{max}$<br>kPa             | $\Delta p_s$<br>kPa                 | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa        | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa       | $\Delta p_{max}$<br>kPa                  | $\Delta p_s$<br>kPa                       | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa                      | $\Delta p_{max}$<br>kPa                   |            |               |                |            |               |                |            |               |                |            |  |  |  |  |  |  |
| Standard actuators                           |                         |                                     |                                     |                                     |                                     |                                     |                         |                            |                         |                           |                                          |                                           |                         |                                          |                                           |            |               |                |            |               |                |            |               |                |            |  |  |  |  |  |  |
| LR..                                         | 5 Nm                    | <input checked="" type="checkbox"/> |                                     |                                     |                                     |                                     |                         | 24 V                       | 90 s                    | LR24A-SR                  | 350                                      | 100                                       | 350                     | 100                                      | 350                                       | 100        | 350           | 100            |            |               |                |            |               |                |            |  |  |  |  |  |  |
|                                              |                         |                                     | <input checked="" type="checkbox"/> |                                     |                                     |                                     |                         |                            |                         | LR24A-SZ                  | 350                                      | 100                                       | 350                     | 100                                      | 350                                       | 100        | 350           | 100            |            |               |                |            |               |                |            |  |  |  |  |  |  |
|                                              |                         | <input checked="" type="checkbox"/> |                                     | <input checked="" type="checkbox"/> |                                     |                                     |                         |                            |                         | LR24A-MP <sup>1)</sup>    | 350                                      | 100                                       | 350                     | 100                                      | 350                                       | 100        | 350           | 100            |            |               |                |            |               |                |            |  |  |  |  |  |  |
|                                              |                         |                                     |                                     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |                         |                            |                         | LR24A-MOD                 | 350                                      | 100                                       | 350                     | 100                                      | 350                                       | 100        | 350           | 100            |            |               |                |            |               |                |            |  |  |  |  |  |  |
|                                              |                         |                                     |                                     |                                     |                                     | <input checked="" type="checkbox"/> |                         |                            |                         | LR24A-KNX                 | 350                                      | 100                                       | 350                     | 100                                      | 350                                       | 100        | 350           | 100            |            |               |                |            |               |                |            |  |  |  |  |  |  |
|                                              |                         | <input checked="" type="checkbox"/> |                                     |                                     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |                         |                            |                         | VLR24A-LP1                | 350                                      | 100                                       | 350                     | 100                                      | 350                                       | 100        | 350           | 100            |            |               |                |            |               |                |            |  |  |  |  |  |  |
| Standard actuators with connecting terminals |                         |                                     |                                     |                                     |                                     |                                     |                         |                            |                         |                           |                                          |                                           |                         |                                          |                                           |            |               |                |            |               |                |            |               |                |            |  |  |  |  |  |  |
| VLR..                                        | 5 Nm                    | <input checked="" type="checkbox"/> |                                     |                                     |                                     |                                     |                         | 24 V                       | 90 s                    | LR24A-SR-TP               | 350                                      | 100                                       | 350                     | 100                                      | 350                                       | 100        | 350           | 100            |            |               |                |            |               |                |            |  |  |  |  |  |  |
|                                              |                         |                                     | <input checked="" type="checkbox"/> |                                     |                                     |                                     |                         |                            |                         | LR24A-SZ-TP               | 350                                      | 100                                       | 350                     | 100                                      | 350                                       | 100        | 350           | 100            |            |               |                |            |               |                |            |  |  |  |  |  |  |
|                                              |                         | <input checked="" type="checkbox"/> |                                     | <input checked="" type="checkbox"/> |                                     |                                     |                         |                            |                         | LR24A-MP-TP <sup>1)</sup> | 350                                      | 100                                       | 350                     | 100                                      | 350                                       | 100        | 350           | 100            |            |               |                |            |               |                |            |  |  |  |  |  |  |

<sup>1)</sup> Control, operating range, feedback, running time, and other functions configurable on MP types with Belimo Assistant 2.

DN 25

|                                |                                                                             |
|--------------------------------|-----------------------------------------------------------------------------|
| Field of use                   | Closed water systems (pH >7)                                                |
| Fluid temperature              | 6...80°C                                                                    |
| Pipe connection                | Internal thread Rp (ISO 7-1)                                                |
| Leakage rate                   | Air-bubble tight, leakage rate A (EN 12266-1)                               |
| Flow characteristic            | Linear: Sequence I: 0...30°<br>Dead zone: 30...60°<br>Sequence II: 60...90° |
| Close-off pressure             | Δp <sub>s</sub> : 350 kPa                                                   |
| Max. differential pressure     | Δp <sub>max</sub> : 100 kPa                                                 |
| Permissible operating pressure | p <sub>s</sub> : 1600 kPa                                                   |

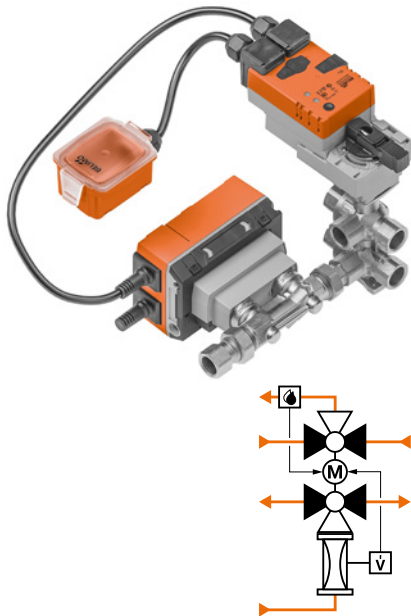


|                                                                                   |                    |                         |            |
|-----------------------------------------------------------------------------------|--------------------|-------------------------|------------|
|  | PN 16              |                         |            |
|                                                                                   | DN 25              |                         |            |
|                                                                                   | $K_{vs}$<br>[m³/h] | $K_{vs}$<br>[m³/h]      | Valve type |
|                                                                                   | Sequence I         | Sequence II             |            |
| 6.3                                                                               | 6.3                | R3025-6P3-6P3-B3        |            |
| $\Delta p_s$<br>kPa                                                               |                    | $\Delta p_{max}$<br>kPa |            |
|                                                                                   |                    |                         |            |
|                                                                                   | 350                | 100                     |            |
|                                                                                   | 350                | 100                     |            |
|                                                                                   | 350                | 100                     |            |
|                                                                                   | 350                | 100                     |            |
|                                                                                   | 350                | 100                     |            |
|                                                                                   | 350                | 100                     |            |
|                                                                                   |                    |                         |            |
|                                                                                   | 350                | 100                     |            |

<sup>1)</sup> Control, operating range, feedback, running time, and other functions configurable on MP types with Belimo Assistant 2.

DN 15...25

|                                                                                              |                                               |
|----------------------------------------------------------------------------------------------|-----------------------------------------------|
| Field of use                                                                                 | Closed water systems (pH >7)                  |
| Fluid temperature                                                                            | 6...80°C                                      |
| Pipe connection                                                                              | Internal thread Rp (ISO 7-1)                  |
| Leakage rate                                                                                 | Air-bubble tight, leakage rate A (EN 12266-1) |
| Flow characteristic                                                                          | Linear                                        |
| Close-off pressure                                                                           | Δp <sub>s</sub> : 350 kPa                     |
| Max. differential pressure                                                                   | Δp <sub>max</sub> : 110 kPa                   |
| V' <sub>max</sub>                                                                            | Adjustable 4.2...100% of V' <sub>nom</sub>    |
| Control, operating range, feedback, and other functions configurable with Belimo Assistant 2 |                                               |





| PN                           | DN | V <sup>nom</sup><br>[l/h] | V <sup>nom</sup><br>[m³/h] | V <sup>max</sup> low-noise<br>[l/h] | V <sup>max</sup> low-noise<br>[m³/h] | Sensor cable length | Nominal voltage<br>AC/DC 24 V | Modulating (2...10 V, variable) | Communication MP-Bus | Communication Modbus | Communication BACnet | Valve type with actuator | Δp <sub>s</sub><br>kPa | Δp <sub>max</sub><br>kPa |
|------------------------------|----|---------------------------|----------------------------|-------------------------------------|--------------------------------------|---------------------|-------------------------------|---------------------------------|----------------------|----------------------|----------------------|--------------------------|------------------------|--------------------------|
| With standard actuator       |    |                           |                            |                                     |                                      |                     |                               |                                 |                      |                      |                      |                          |                        |                          |
| 16                           | 15 | 1500                      | 1.5                        | 1060                                | 1.06                                 |                     | 24 V                          | ■                               | ■                    | ■                    | ■                    | EP015R6+BAC              | 350                    | 110                      |
|                              | 20 | 2500                      | 2.5                        | 1760                                | 1.76                                 |                     |                               | ■                               | ■                    | ■                    | ■                    | EP020R6+BAC              | 350                    | 110                      |
|                              | 25 | 3500                      | 3.5                        | 2470                                | 2.47                                 |                     |                               | ■                               | ■                    | ■                    | ■                    | EP025R6+BAC              | 350                    | 110                      |
| With condensation switch     |    |                           |                            |                                     |                                      |                     |                               |                                 |                      |                      |                      |                          |                        |                          |
| 16                           | 15 | 1500                      | 1.5                        | 1060                                | 1.06                                 | 2 m                 | 24 V                          | ■                               | ■                    | ■                    | ■                    | EP015R6+BAC-HH1          | 350                    | 110                      |
|                              | 20 | 2500                      | 2.5                        | 1760                                | 1.76                                 |                     |                               | ■                               | ■                    | ■                    | ■                    | EP020R6+BAC-HH1          | 350                    | 110                      |
|                              | 25 | 3500                      | 3.5                        | 2470                                | 2.47                                 |                     |                               | ■                               | ■                    | ■                    | ■                    | EP025R6+BAC-HH1          | 350                    | 110                      |
|                              | 15 | 1500                      | 1.5                        | 1060                                | 1.06                                 | 2 + 2 m             |                               | ■                               | ■                    | ■                    | ■                    | EP015R6+BAC-HH2          | 350                    | 110                      |
|                              | 20 | 2500                      | 2.5                        | 1760                                | 1.76                                 |                     |                               | ■                               | ■                    | ■                    | ■                    | EP020R6+BAC-HH2          | 350                    | 110                      |
|                              | 25 | 3500                      | 3.5                        | 2470                                | 2.47                                 |                     |                               | ■                               | ■                    | ■                    | ■                    | EP025R6+BAC-HH2          | 350                    | 110                      |
| With contact sensor humidity |    |                           |                            |                                     |                                      |                     |                               |                                 |                      |                      |                      |                          |                        |                          |
| 16                           | 15 | 1500                      | 1.5                        | 1060                                | 1.06                                 | 2 + 2 m             | 24 V                          | ■                               | ■                    | ■                    | ■                    | EP015R6+BAC-HHM          | 350                    | 110                      |
|                              | 20 | 2500                      | 2.5                        | 1760                                | 1.76                                 |                     |                               | ■                               | ■                    | ■                    | ■                    | EP020R6+BAC-HHM          | 350                    | 110                      |
|                              | 25 | 3500                      | 3.5                        | 2470                                | 2.47                                 |                     |                               | ■                               | ■                    | ■                    | ■                    | EP025R6+BAC-HHM          | 350                    | 110                      |



2...12 zones

|                    |                                                |
|--------------------|------------------------------------------------|
| Materials          | Manifold: stainless steel<br>Valve body: brass |
| Operating pressure | 6 bar                                          |
| Flow setting       | 0...5 l/min                                    |
| Connection         | G 1" (ISO 228)<br>G 3/4" Euro cone             |



2 zones3 zones4 zones5 zones6 zones7 zones8 zones9 zones10 zones11 zones12 zones

| Suitable actuators                                                                  | Nominal torque            | Open/close | 3-point | Modulating (2...10 V) | Modulating (0.5...10 V) | Communication MP-Bus | Communication BACnet | Communication Modbus | Fail-safe | Nominal voltage<br>AC/DC 24 V<br>AC 230 V | Running time<br>motor 90° | Actuator type             | Manifold type | EM-ECQ-02F | EM-ECQ-03F | EM-ECQ-04F | EM-ECQ-05F | EM-ECQ-06F | EM-ECQ-07F | EM-ECQ-08F | EM-ECQ-09F | EM-ECQ-10F | EM-ECQ-11F | EM-ECQ-12F |   |   |   |
|-------------------------------------------------------------------------------------|---------------------------|------------|---------|-----------------------|-------------------------|----------------------|----------------------|----------------------|-----------|-------------------------------------------|---------------------------|---------------------------|---------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|---|---|---|
|                                                                                     |                           |            |         |                       |                         |                      |                      |                      |           |                                           |                           |                           |               |            |            |            |            |            |            |            |            |            |            |            |   |   |   |
|  | Standard actuators        |            |         |                       |                         |                      |                      |                      |           |                                           |                           |                           |               |            |            |            |            |            |            |            |            |            |            |            |   |   |   |
|                                                                                     | 1 Nm                      | ■          | ■       |                       |                         |                      |                      |                      |           |                                           | 24 V                      | 75 s                      | CQ24A         | ■          |            | ■          |            | ■          |            | ■          |            | ■          |            | ■          |   | ■ |   |
|                                                                                     |                           |            |         | ■                     |                         |                      |                      |                      |           | CQ24A-SR                                  |                           |                           | ■             |            | ■          |            | ■          |            | ■          |            | ■          |            | ■          |            | ■ |   | ■ |
|                                                                                     |                           |            |         |                       | ■                       |                      |                      |                      |           | CQ24A-SZ                                  |                           |                           | ■             |            | ■          |            | ■          |            | ■          |            | ■          |            | ■          |            | ■ |   | ■ |
|                                                                                     |                           |            |         |                       |                         | ■                    |                      |                      |           | CQ24A-MPL                                 |                           |                           | ■             |            | ■          |            | ■          |            | ■          |            | ■          |            | ■          |            | ■ |   | ■ |
|                                                                                     |                           |            |         |                       |                         |                      | ■                    |                      |           | CQ24A-BAC                                 |                           |                           | ■             |            | ■          |            | ■          |            | ■          |            | ■          |            | ■          |            | ■ |   | ■ |
|                                                                                     |                           |            |         |                       |                         |                      |                      | ■                    | ■         | CQ230A                                    |                           |                           | ■             |            | ■          |            | ■          |            | ■          |            | ■          |            | ■          |            | ■ |   | ■ |
| Standard actuators with connecting terminals                                        |                           |            |         |                       |                         |                      |                      |                      |           |                                           |                           |                           |               |            |            |            |            |            |            |            |            |            |            |            |   |   |   |
|  | 1 Nm                      | ■          | ■       |                       |                         |                      |                      |                      |           | 24 V                                      | 75 s                      | CQ24A-T                   | ■             |            | ■          |            | ■          |            | ■          |            | ■          |            | ■          |            | ■ |   |   |
|                                                                                     |                           |            |         | ■                     |                         |                      |                      |                      |           |                                           |                           | CQ24A-SR-T                | ■             |            | ■          |            | ■          |            | ■          |            | ■          |            | ■          |            | ■ |   |   |
|                                                                                     |                           |            |         |                       | ■                       |                      |                      |                      |           |                                           |                           | CQ24A-SZ-T                | ■             |            | ■          |            | ■          |            | ■          |            | ■          |            | ■          |            | ■ |   |   |
|                                                                                     |                           | ■          | ■       |                       |                         |                      |                      |                      |           |                                           |                           | CQ230A-T                  | ■             |            | ■          |            | ■          |            | ■          |            | ■          |            | ■          |            | ■ |   |   |
|  | Fail-safe actuators NC/NO |            |         |                       |                         |                      |                      |                      |           |                                           |                           |                           |               |            |            |            |            |            |            |            |            |            |            |            |   |   |   |
|                                                                                     | 1 Nm                      | ■          |         |                       |                         |                      |                      |                      | ■         | 24 V                                      | 75 s                      | CQK24A                    | ■             |            | ■          |            | ■          |            | ■          |            | ■          |            | ■          |            | ■ |   |   |
|                                                                                     |                           |            |         | ■                     |                         |                      |                      |                      | ■         |                                           |                           | CQK24A-SR                 | ■             |            | ■          |            | ■          |            | ■          |            | ■          |            | ■          |            | ■ |   |   |
|                                                                                     |                           |            |         |                       | ■                       |                      |                      |                      | ■         |                                           |                           | CQK24A-SZ.1 <sup>1)</sup> | ■             |            | ■          |            | ■          |            | ■          |            | ■          |            | ■          |            | ■ |   |   |
|                                                                                     |                           |            |         |                       |                         | ■                    |                      |                      | ■         |                                           |                           | CQK24A-MPL                | ■             |            | ■          |            | ■          |            | ■          |            | ■          |            | ■          |            | ■ |   |   |
|                                                                                     |                           | ■          |         |                       |                         |                      |                      |                      | ■         |                                           |                           | CQK230A                   | ■             |            | ■          |            | ■          |            | ■          |            | ■          |            | ■          |            | ■ |   |   |
| Fail-safe actuators NC/NO with connecting terminals                                 |                           |            |         |                       |                         |                      |                      |                      |           |                                           |                           |                           |               |            |            |            |            |            |            |            |            |            |            |            |   |   |   |
|  | 1 Nm                      | ■          |         |                       |                         |                      |                      |                      | ■         | 24 V                                      | 75 s                      | CQK24A-T                  | ■             |            | ■          |            | ■          |            | ■          |            | ■          |            | ■          |            | ■ |   |   |
|                                                                                     |                           |            |         | ■                     |                         |                      |                      |                      | ■         |                                           |                           | CQK24A-SR-T               | ■             |            | ■          |            | ■          |            | ■          |            | ■          |            | ■          |            | ■ |   |   |
|                                                                                     |                           |            |         |                       |                         | ■                    |                      |                      | ■         |                                           |                           | CQK24A-MPL-T              | ■             |            | ■          |            | ■          |            | ■          |            | ■          |            | ■          |            | ■ |   |   |
|                                                                                     |                           | ■          |         |                       |                         |                      |                      |                      | ■         |                                           |                           | CQK230A-T                 | ■             |            | ■          |            | ■          |            | ■          |            | ■          |            | ■          |            | ■ |   |   |

<sup>1)</sup> Actuator is delivered in multipack with 36 pieces.



5

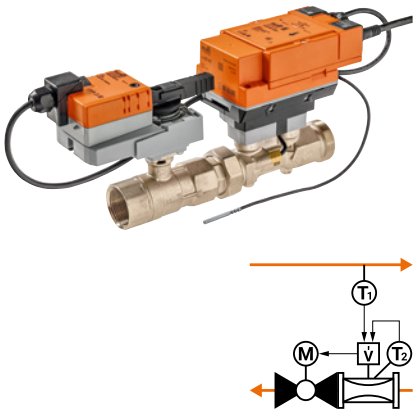
Pressure-independent characterised control valves  
Complete transparency and highest efficiency

|                                                                    |                              |       |       |                  |    |
|--------------------------------------------------------------------|------------------------------|-------|-------|------------------|----|
| Belimo Energy Valve™                                               |                              |       |       |                  |    |
|                                                                    | Internal and external thread | 2-way | PN 25 | DN 15...50       | 30 |
|                                                                    |                              |       |       | DN 15...50 (MID) | 31 |
|                                                                    | Flange                       | 3-way | PN 16 | DN 15...50       | 32 |
|                                                                    |                              | 2-way |       | DN 65...150      | 33 |
| Electronic pressure-independent characterised control valve (EPIV) | Internal and external thread | 2-way | PN 25 | DN 15...50       | 34 |
|                                                                    | Flange                       |       | PN 16 | DN 65...150      | 35 |

Please refer to the data sheets or notes for project planning for further technical data to be observed.

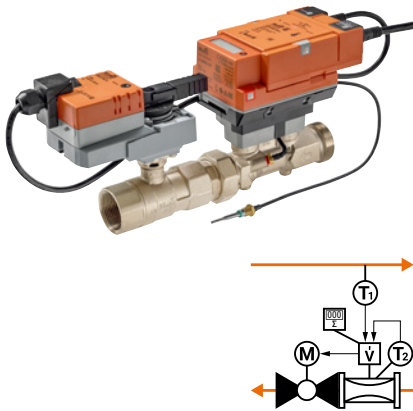
DN 15...50

- Field of use
- Closed water systems (pH >7)
- Fluid temperature
- −10...120°C
- Pipe connection
- Internal thread Rp (ISO 7-1) and  
External thread G (ISO 228-1)
- Leakage rate
- Air-bubble tight, leakage rate A (EN 12266-1)
- Permissible operating pressure
- p<sub>S</sub>: 1600 kPa
- V'<sub>max</sub>
- Adjustable 25...100% of V'<sub>nom</sub>
- Configurable via integrated web server or Belimo Assistant 2
- Optional connection to the Belimo Cloud
- Sensor-operated flow, power or differential pressure control
- Delta-T manager for optimal differential temperatures



DN 15...50 (MID)

- Field of use
- Closed water systems (pH >7)
- Fluid temperature
- −10...120°C
- Fluid temperature note
- MID-certified 15...120°C
- Pipe connection
- Internal thread Rp (ISO 7-1) and  
external thread G (ISO 228-1)
- Leakage rate
- Air-bubble tight, leakage rate A (EN 12266-1)
- Permissible operating pressure
- p<sub>S</sub>: 1600 kPa
- V'<sub>max</sub>
- Adjustable 25...100% of V'<sub>nom</sub>
- The thermal energy meters comply with the requirements of EN 1434 and have a type approval as heat meters according to the European Measuring Instruments Directive 2014/32/EU (MI-004).
- Configurable via integrated web server or Belimo Assistant 2
- Optional connection to the Belimo Cloud
- Sensor-operated flow, power or differential pressure control
- Delta-T manager for optimal differential temperatures



|  |    |        |        |                            |                              |                             |                               |                                 |                      |                      |                      |                                 |                          |                        |                          |
|-----------------------------------------------------------------------------------|----|--------|--------|----------------------------|------------------------------|-----------------------------|-------------------------------|---------------------------------|----------------------|----------------------|----------------------|---------------------------------|--------------------------|------------------------|--------------------------|
| PN                                                                                | DN | G      | Rp     | V' <sub>nom</sub><br>[l/s] | V' <sub>nom</sub><br>[l/min] | V' <sub>nom</sub><br>[m³/h] | Nominal voltage<br>AC/DC 24 V | Modulating (2...10 V, variable) | Communication MP-Bus | Communication Modbus | Communication BACnet | Glycol monitoring <sup>1)</sup> | Valve type with actuator | Δp <sub>s</sub><br>kPa | Δp <sub>max</sub><br>kPa |
| Standard actuators                                                                |    |        |        |                            |                              |                             |                               |                                 |                      |                      |                      |                                 |                          |                        |                          |
| 25                                                                                | 15 | 3/4"   | 1/2"   | 0.42                       | 25                           | 1.5                         | 24 V                          | ■                               | ■                    | ■                    | ■                    | ■                               | EV015R2+BAC              | 1400                   | 350                      |
|                                                                                   | 20 | 1"     | 3/4"   | 0.69                       | 41.7                         | 2.5                         |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EV020R2+BAC              | 1400                   | 350                      |
|                                                                                   | 25 | 1 1/4" | 1"     | 0.97                       | 58.3                         | 3.5                         |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EV025R2+BAC              | 1400                   | 350                      |
|                                                                                   | 32 | 1 1/2" | 1 1/4" | 1.67                       | 100                          | 6                           |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EV032R2+BAC              | 1400                   | 350                      |
|                                                                                   | 40 | 2"     | 1 1/2" | 2.78                       | 166.7                        | 10                          |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EV040R2+BAC              | 1400                   | 350                      |
|                                                                                   | 50 | 2 1/2" | 2"     | 4.17                       | 250                          | 15                          |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EV050R2+BAC              | 1400                   | 350                      |
| Fail-safe actuators                                                               |    |        |        |                            |                              |                             |                               |                                 |                      |                      |                      |                                 |                          |                        |                          |
| 25                                                                                | 15 | 3/4"   | 1/2"   | 0.42                       | 25                           | 1.5                         | 24 V                          | ■                               | ■                    | ■                    | ■                    | ■                               | EV015R2+KBAC             | 1400                   | 350                      |
|                                                                                   | 20 | 1"     | 3/4"   | 0.69                       | 41.7                         | 2.5                         |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EV020R2+KBAC             | 1400                   | 350                      |
|                                                                                   | 25 | 1 1/4" | 1"     | 0.97                       | 58.3                         | 3.5                         |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EV025R2+KBAC             | 1400                   | 350                      |
|                                                                                   | 32 | 1 1/2" | 1 1/4" | 1.67                       | 100                          | 6                           |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EV032R2+KBAC             | 1400                   | 350                      |
|                                                                                   | 40 | 2"     | 1 1/2" | 2.78                       | 166.7                        | 10                          |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EV040R2+KBAC             | 1400                   | 350                      |
|                                                                                   | 50 | 2 1/2" | 2"     | 4.17                       | 250                          | 15                          |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EV050R2+KBAC             | 1400                   | 350                      |

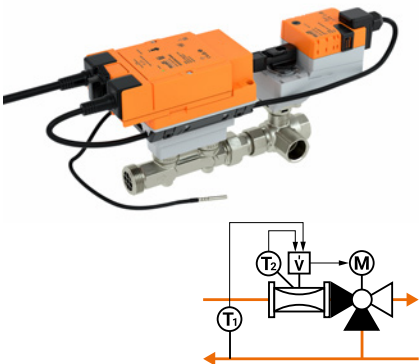
<sup>1)</sup> By monitoring the glycol content, optimum system function can be ensured.



| PN                 | DN | G      | Rp     | V' <sub>nom</sub><br>[l/s] | V' <sub>nom</sub><br>[l/min] | V' <sub>nom</sub><br>[m³/h] | Nominal voltage<br>AC/DC 24 V | Modulating (2...10 V, variable) | Communication MP-Bus | Communication Modbus | Communication BACnet | Valve type with actuator | Δp <sub>S</sub><br>kPa | Δp <sub>max</sub><br>kPa |
|--------------------|----|--------|--------|----------------------------|------------------------------|-----------------------------|-------------------------------|---------------------------------|----------------------|----------------------|----------------------|--------------------------|------------------------|--------------------------|
| Standard actuators |    |        |        |                            |                              |                             |                               |                                 |                      |                      |                      |                          |                        |                          |
| 25                 | 15 | 3/4"   | 1/2"   | 0.42                       | 25                           | 1.5                         | 24 V                          | ■                               | ■                    | ■                    | ■                    | EV015R2+MID              | 1400                   | 350                      |
|                    | 20 | 1"     | 3/4"   | 0.69                       | 41.7                         | 2.5                         |                               | ■                               | ■                    | ■                    | ■                    | EV020R2+MID              | 1400                   | 350                      |
|                    | 25 | 1 1/4" | 1"     | 0.97                       | 58.3                         | 3.5                         |                               | ■                               | ■                    | ■                    | ■                    | EV025R2+MID              | 1400                   | 350                      |
|                    | 32 | 1 1/2" | 1 1/4" | 1.67                       | 100                          | 6                           |                               | ■                               | ■                    | ■                    | ■                    | EV032R2+MID              | 1400                   | 350                      |
|                    | 40 | 2"     | 1 1/2" | 2.78                       | 166.7                        | 10                          |                               | ■                               | ■                    | ■                    | ■                    | EV040R2+MID              | 1400                   | 350                      |
|                    | 50 | 2 1/2" | 2"     | 4.17                       | 250                          | 15                          |                               | ■                               | ■                    | ■                    | ■                    | EV050R2+MID              | 1400                   | 350                      |

DN 15...50

- Field of use
- Closed water systems (pH >7)
- Fluid temperature
- −10...120°C
- Pipe connection
- Internal thread Rp (ISO 7-1) and external thread G (ISO 228-1)
- Leakage rate
- Control path A–AB: air-bubble tight, leakage rate A (EN 12266-1) / bypass B–AB: leakage class I
- Permissible operating pressure
- p<sub>S</sub>: 1600 kPa
- V'<sub>max</sub>
- Adjustable 25...100% of V'<sub>nom</sub>
- Configurable via integrated web server or Belimo Assistant 2
- Optional connection to the Belimo Cloud
- Sensor-operated flow or power control
- Delta-T manager for optimal differential temperatures



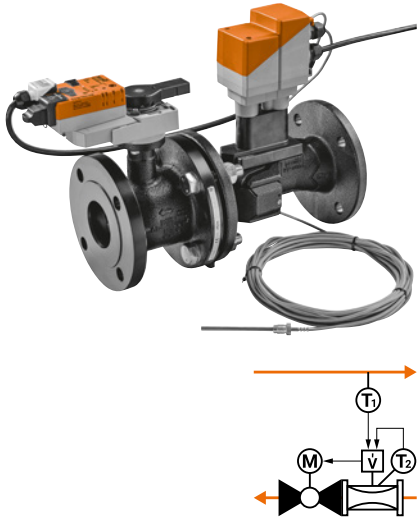
| PN                 | DN | G      | Rp     | V' <sub>nom</sub><br>[l/s] | V' <sub>nom</sub><br>[l/min] | V' <sub>nom</sub><br>[m³/h] | Nominal voltage<br>AC/DC 24 V | Modulating (2...10 V, variable) | Communication MP-Bus | Communication Modbus | Communication BACnet | Glycol monitoring <sup>1)</sup> | Valve type with actuator | Δp <sub>S</sub><br>kPa | Δp <sub>max</sub><br>kPa |
|--------------------|----|--------|--------|----------------------------|------------------------------|-----------------------------|-------------------------------|---------------------------------|----------------------|----------------------|----------------------|---------------------------------|--------------------------|------------------------|--------------------------|
| Standard actuators |    |        |        |                            |                              |                             |                               |                                 |                      |                      |                      |                                 |                          |                        |                          |
| 25                 | 15 | 3/4"   | 1/2"   | 0.42                       | 25                           | 1.5                         | 24 V                          | ■                               | ■                    | ■                    | ■                    | ■                               | EV015R3+BAC              | 1400                   | 350                      |
|                    | 20 | 1"     | 3/4"   | 0.69                       | 41.7                         | 2.5                         |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EV020R3+BAC              | 1400                   | 350                      |
|                    | 25 | 1 1/4" | 1"     | 0.97                       | 58.3                         | 3.5                         |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EV025R3+BAC              | 1400                   | 350                      |
|                    | 32 | 1 1/2" | 1 1/4" | 1.67                       | 100                          | 6                           |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EV032R3+BAC              | 1400                   | 350                      |
|                    | 40 | 2"     | 1 1/2" | 2.78                       | 166.7                        | 10                          |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EV040R3+BAC              | 1400                   | 350                      |
|                    | 50 | 2 1/2" | 2"     | 4.17                       | 250                          | 15                          |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EV050R3+BAC              | 1400                   | 350                      |

<sup>1)</sup> By monitoring the glycol content, optimum system function can be ensured.

Note: 3-way Belimo Energy Valve™ with MID on request.

DN 65...150

- Field of use
- Closed water systems (pH >7)
- Fluid temperature
- −10...120°C
- Pipe connection
- Flange PN 16 (EN 1092-2)
- Leakage rate
- Air-bubble tight, leakage rate A (EN 12266-1)
- Permissible operating pressure
- p<sub>S</sub>: 1600 kPa
- V'<sub>max</sub>
- Adjustable 30...100% of V'<sub>nom</sub>
- Configurable via integrated web server
- Optional connection to the Belimo Cloud
- Sensor-operated flow or power control
- Delta-T manager for optimal differential temperatures



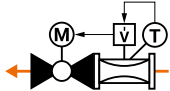
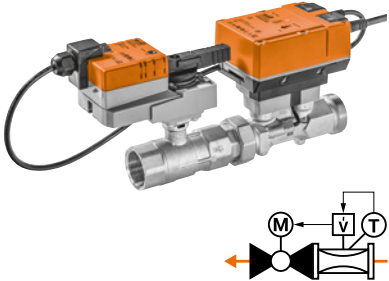


| PN                  | DN  | V' <sup>nom</sup><br>[l/s] | V' <sup>nom</sup><br>[l/min] | V' <sup>nom</sup><br>[m³/h] | Nominal voltage<br>AC/DC 24 V | Modulating (2...10 V, variable) | Communication MP-Bus | Communication Modbus | Communication BACnet | Glycol monitoring <sup>1)</sup> | Valve type with actuator | Δp <sub>s</sub><br>kPa | Δp <sub>max</sub><br>kPa |
|---------------------|-----|----------------------------|------------------------------|-----------------------------|-------------------------------|---------------------------------|----------------------|----------------------|----------------------|---------------------------------|--------------------------|------------------------|--------------------------|
| Standard actuators  |     |                            |                              |                             |                               |                                 |                      |                      |                      |                                 |                          |                        |                          |
| 16                  | 65  | 8                          | 480                          | 28.8                        | 24 V                          | ■                               | ■                    | ■                    | ■                    | ■                               | EV065F+BAC               | 690                    | 340                      |
|                     | 80  | 11                         | 660                          | 39.6                        |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EV080F+BAC               | 690                    | 340                      |
|                     | 100 | 20                         | 1200                         | 72                          |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EV100F+BAC               | 690                    | 340                      |
|                     | 125 | 31                         | 1860                         | 111.6                       |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EV125F+BAC               | 690                    | 340                      |
|                     | 150 | 45                         | 2700                         | 162                         |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EV150F+BAC               | 690                    | 340                      |
| Fail-safe actuators |     |                            |                              |                             |                               |                                 |                      |                      |                      |                                 |                          |                        |                          |
| 16                  | 65  | 8                          | 480                          | 28.8                        | 24 V                          | ■                               | ■                    | ■                    | ■                    | ■                               | EV065F+KBAC              | 690                    | 340                      |
|                     | 80  | 11                         | 660                          | 39.6                        |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EV080F+KBAC              | 690                    | 340                      |
|                     | 100 | 20                         | 1200                         | 72                          |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EV100F+KBAC              | 690                    | 340                      |
|                     | 125 | 31                         | 1860                         | 111.6                       |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EV125F+KBAC              | 690                    | 340                      |
|                     | 150 | 45                         | 2700                         | 162                         |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EV150F+KBAC              | 690                    | 340                      |

<sup>1)</sup> By monitoring the glycol content, optimum system function can be ensured.

DN 15...50

Field of useClosed water systems (pH >7)  
Fluid temperature-10...120°C  
Pipe connectionInternal thread Rp (ISO 7-1) and external thread G (ISO 228-1)  
Leakage rateAir-bubble tight, leakage rate A (EN 12266-1)  
Permissible operating pressurep<sub>s</sub>: 1600 kPa  
V'<sub>max</sub>Adjustable 25...100% of V'<sub>nom</sub>  
Control, operating range, feedback, and other functionsconfigurable with Belimo Assistant 2



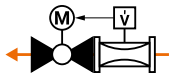
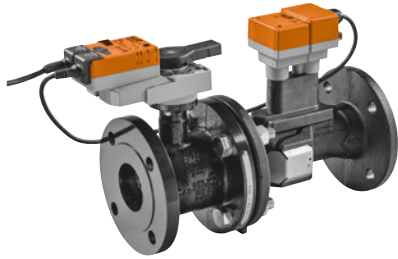


| PN                  | DN | G      | Rp     | V' <sub>nom</sub><br>[l/s] | V' <sub>nom</sub><br>[l/min] | V' <sub>nom</sub><br>[m³/h] | Nominal voltage<br>AC/DC 24 V | Modulating (2...10 V, variable) | Communication MP-Bus | Communication Modbus | Communication BACnet | Glycol monitoring <sup>1)</sup> | Valve type with actuator | Δp <sub>s</sub><br>kPa | Δp <sub>max</sub><br>kPa |
|---------------------|----|--------|--------|----------------------------|------------------------------|-----------------------------|-------------------------------|---------------------------------|----------------------|----------------------|----------------------|---------------------------------|--------------------------|------------------------|--------------------------|
| Standard actuators  |    |        |        |                            |                              |                             |                               |                                 |                      |                      |                      |                                 |                          |                        |                          |
| 25                  | 15 | 3/4"   | 1/2"   | 0.42                       | 25                           | 1.5                         | 24 V                          | ■                               | ■                    | ■                    | ■                    | ■                               | EP015R2+BAC              | 1400                   | 350                      |
|                     | 20 | 1"     | 3/4"   | 0.69                       | 41.7                         | 2.5                         |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EP020R2+BAC              | 1400                   | 350                      |
|                     | 25 | 1 1/4" | 1"     | 0.97                       | 58.3                         | 3.5                         |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EP025R2+BAC              | 1400                   | 350                      |
|                     | 32 | 1 1/2" | 1 1/4" | 1.67                       | 100                          | 6                           |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EP032R2+BAC              | 1400                   | 350                      |
|                     | 40 | 2"     | 1 1/2" | 2.78                       | 166.7                        | 10                          |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EP040R2+BAC              | 1400                   | 350                      |
|                     | 50 | 2 1/2" | 2"     | 4.17                       | 250                          | 15                          |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EP050R2+BAC              | 1400                   | 350                      |
| Fail-safe actuators |    |        |        |                            |                              |                             |                               |                                 |                      |                      |                      |                                 |                          |                        |                          |
| 25                  | 15 | 3/4"   | 1/2"   | 0.42                       | 25                           | 1.5                         | 24 V                          | ■                               | ■                    | ■                    | ■                    | ■                               | EP015R2+KBAC             | 1400                   | 350                      |
|                     | 20 | 1"     | 3/4"   | 0.69                       | 41.7                         | 2.5                         |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EP020R2+KBAC             | 1400                   | 350                      |
|                     | 25 | 1 1/4" | 1"     | 0.97                       | 58.3                         | 3.5                         |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EP025R2+KBAC             | 1400                   | 350                      |
|                     | 32 | 1 1/2" | 1 1/4" | 1.67                       | 100                          | 6                           |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EP032R2+KBAC             | 1400                   | 350                      |
|                     | 40 | 2"     | 1 1/2" | 2.78                       | 166.7                        | 10                          |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EP040R2+KBAC             | 1400                   | 350                      |
|                     | 50 | 2 1/2" | 2"     | 4.17                       | 250                          | 15                          |                               | ■                               | ■                    | ■                    | ■                    | ■                               | EP050R2+KBAC             | 1400                   | 350                      |

<sup>1)</sup> By monitoring the glycol content, optimum system function can be ensured.

DN 65...150

Field of useClosed water systems (pH >7)  
Fluid temperature-10...120°C  
Pipe connectionFlange PN 16 (EN 1092-2)  
Leakage rateAir-bubble tight, leakage rate A (EN 12266-1)  
Permissible operating pressurep<sub>s</sub>: 1600 kPa  
V'<sub>max</sub>Adjustable 30...100% of V'<sub>nom</sub>  
Control, operating range, feedback, and other functionsconfigurable with Belimo Assistant 2





| PN                  | DN  | V' <sub>nom</sub><br>[l/s] | V' <sub>nom</sub><br>[l/min] | V' <sub>nom</sub><br>[m³/h] | Nominal voltage<br>AC/DC 24 V | Modulating (2...10 V, variable) | Communication MP-Bus | Communication Modbus | Communication BACnet | Valve type with actuator | Δp <sub>s</sub><br>kPa | Δp <sub>max</sub><br>kPa |
|---------------------|-----|----------------------------|------------------------------|-----------------------------|-------------------------------|---------------------------------|----------------------|----------------------|----------------------|--------------------------|------------------------|--------------------------|
| Standard actuators  |     |                            |                              |                             |                               |                                 |                      |                      |                      |                          |                        |                          |
| 16                  | 65  | 8                          | 480                          | 28.8                        | 24 V                          | ■                               | ■                    |                      |                      | EP065F+MP                | 690                    | 340                      |
|                     | 80  | 11                         | 660                          | 39.6                        |                               | ■                               | ■                    |                      |                      | EP080F+MP                | 690                    | 340                      |
|                     | 100 | 20                         | 1200                         | 72                          |                               | ■                               | ■                    |                      |                      | EP100F+MP                | 690                    | 340                      |
|                     | 125 | 31                         | 1860                         | 111.6                       |                               | ■                               | ■                    |                      |                      | EP125F+MP                | 690                    | 340                      |
|                     | 150 | 45                         | 2700                         | 162                         |                               | ■                               | ■                    |                      |                      | EP150F+MP                | 690                    | 340                      |
| Fail-safe actuators |     |                            |                              |                             |                               |                                 |                      |                      |                      |                          |                        |                          |
| 16                  | 65  | 8                          | 480                          | 28.8                        | 24 V                          | ■                               | ■                    |                      |                      | EP065F+KMP               | 690                    | 340                      |
|                     | 80  | 11                         | 660                          | 39.6                        |                               | ■                               | ■                    |                      |                      | EP080F+KMP               | 690                    | 340                      |
|                     | 100 | 20                         | 1200                         | 72                          |                               | ■                               | ■                    |                      |                      | EP100F+KMP               | 690                    | 340                      |
|                     | 125 | 31                         | 1860                         | 111.6                       |                               | ■                               | ■                    |                      |                      | EP125F+KMP               | 690                    | 340                      |
|                     | 150 | 45                         | 2700                         | 162                         |                               | ■                               | ■                    |                      |                      | EP150F+KMP               | 690                    | 340                      |
| Modbus actuators    |     |                            |                              |                             |                               |                                 |                      |                      |                      |                          |                        |                          |
| 16                  | 65  | 8                          | 480                          | 28.8                        | 24 V                          | ■                               | ■                    | ■                    | ■                    | EP065F+MOD               | 690                    | 340                      |
|                     | 80  | 11                         | 660                          | 39.6                        |                               | ■                               | ■                    | ■                    | ■                    | EP080F+MOD               | 690                    | 340                      |
|                     | 100 | 20                         | 1200                         | 72                          |                               | ■                               | ■                    | ■                    | ■                    | EP100F+MOD               | 690                    | 340                      |
|                     | 125 | 31                         | 1860                         | 111.6                       |                               | ■                               | ■                    | ■                    | ■                    | EP125F+MOD               | 690                    | 340                      |
|                     | 150 | 45                         | 2700                         | 162                         |                               | ■                               | ■                    | ■                    | ■                    | EP150F+MOD               | 690                    | 340                      |

The valve types EP..F+.. will be replaced by the new types EP..F2-...+.. over the course of the year.



6

Characterised control valves (CCV)

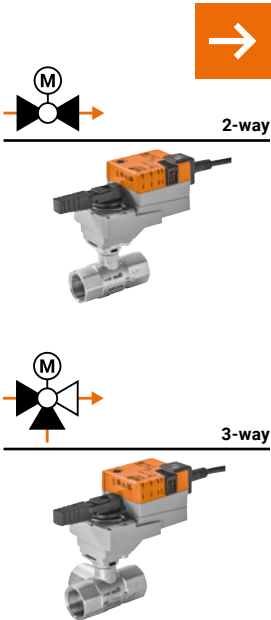
Reliable control  
of heating and cooling systems

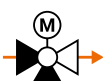
|                 |               |       |             |    |
|-----------------|---------------|-------|-------------|----|
| Internal thread | 2-way – 3-way | PN 25 | DN 32...50  | 38 |
|                 |               | PN 40 | DN 15...25  |    |
| External thread | 2-way – 3-way | PN 25 | DN 32...50  | 40 |
|                 |               | PN 40 | DN 15...25  |    |
| Flange          | 2-way – 3-way | PN 6  | DN 15...50  | 42 |
|                 | 2-way         | PN 16 | DN 65...150 | 44 |
| External thread | 2-way / 130°  | PN 40 | DN 10...20  | 46 |

Please refer to the data sheets or notes for project planning for further technical data to be observed.

DN 15...50

|                                |                                                                                                                                                                |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Field of use                   | 2-way: closed and open water systems (pH >7)<br>3-way: closed water systems (pH >7)                                                                            |
| Fluid temperature              | –10...120°C <sup>1)</sup>                                                                                                                                      |
| Pipe connection                | Internal thread Rp (ISO 7-1)                                                                                                                                   |
| Leakage rate                   | 2-way: air-bubble tight, leakage rate A (EN 12266-1)<br>3-way: control path A–AB: air-bubble tight, leakage rate A (EN 12266-1) / bypass B–AB: leakage class I |
| Flow characteristic            | 2-way: equal percentage<br>3-way: control path A–AB: equal percentage / bypass B–AB: linear (linear flow 70% of the K <sub>VS</sub> value)                     |
| Permissible operating pressure | p <sub>S</sub> : 1600 kPa                                                                                                                                      |

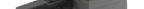


| PN 40                                                                                       |                           |                        |                                        |                           |                                        | PN 25                  |                                        |                           |                                        |                        |                                        |
|---------------------------------------------------------------------------------------------|---------------------------|------------------------|----------------------------------------|---------------------------|----------------------------------------|------------------------|----------------------------------------|---------------------------|----------------------------------------|------------------------|----------------------------------------|
| DN 15                                                                                       |                           | DN 20                  |                                        | DN 25                     |                                        | DN 32                  |                                        | DN 40                     |                                        | DN 50                  |                                        |
| <br>2-way | K <sub>VS</sub><br>[m³/h] | Valve type             |                                        |                           |                                        |                        |                                        |                           |                                        |                        |                                        |
|                                                                                             | 0.25                      | R2015-P25-S1           |                                        |                           |                                        |                        |                                        |                           |                                        |                        |                                        |
|                                                                                             | 0.4                       | R2015-P4-S1            |                                        |                           |                                        |                        |                                        |                           |                                        |                        |                                        |
|                                                                                             | 0.63                      | R2015-P63-S1           |                                        |                           |                                        |                        |                                        |                           |                                        |                        |                                        |
|                                                                                             | 1                         | R2015-1-S1             |                                        |                           |                                        |                        |                                        |                           |                                        |                        |                                        |
|                                                                                             | 1.6                       | R2015-1P6-S1           |                                        |                           |                                        |                        |                                        |                           |                                        |                        |                                        |
| <br>3-way | K <sub>VS</sub><br>[m³/h] | Valve type             |                                        | K <sub>VS</sub><br>[m³/h] | Valve type                             |                        |                                        | K <sub>VS</sub><br>[m³/h] | Valve type                             |                        |                                        |
|                                                                                             | 0.25                      | R3015-P25-S1           |                                        |                           |                                        |                        |                                        |                           |                                        |                        |                                        |
|                                                                                             | 0.4                       | R3015-P4-S1            |                                        |                           |                                        |                        |                                        |                           |                                        |                        |                                        |
|                                                                                             | 0.63                      | R3015-P63-S1           |                                        |                           |                                        |                        |                                        |                           |                                        |                        |                                        |
|                                                                                             | 1                         | R3015-1-S1             |                                        |                           |                                        |                        |                                        |                           |                                        |                        |                                        |
|                                                                                             | 1.6                       | R3015-1P6-S1           |                                        |                           |                                        |                        |                                        |                           |                                        |                        |                                        |
|                                                                                             | K <sub>VS</sub><br>[m³/h] | Valve type             |                                        | K <sub>VS</sub><br>[m³/h] | Valve type                             |                        |                                        | K <sub>VS</sub><br>[m³/h] | Valve type                             |                        |                                        |
|                                                                                             | 2.5                       | R2015-2P5-S1           |                                        | 4                         | R2020-4-S2                             | 6.3                    | R2025-6P3-S2                           |                           |                                        |                        |                                        |
|                                                                                             | 4                         | R2015-4-S1             |                                        | 6.3                       | R2020-6P3-S2                           | 10                     | R2025-10-S2                            | K <sub>VS</sub><br>[m³/h] | Valve type                             | 16                     | R2040-16-S3                            |
|                                                                                             | 6.3                       | R2015-6P3-S1           |                                        | 8.6                       | R2020-8P6-S2                           | 16                     | R2025-16-S2                            | 16                        | R2032-16-S3                            | 25                     | R2040-25-S3                            |
|                                                                                             |                           |                        |                                        |                           |                                        |                        |                                        |                           |                                        |                        |                                        |
|                                                                                             |                           |                        |                                        |                           |                                        |                        |                                        |                           |                                        |                        |                                        |
|                                                                                             | K <sub>VS</sub><br>[m³/h] | Valve type             |                                        | K <sub>VS</sub><br>[m³/h] | Valve type                             |                        |                                        | K <sub>VS</sub><br>[m³/h] | Valve type                             |                        |                                        |
|                                                                                             | 25                        | R3050-25-S4            |                                        |                           |                                        |                        |                                        |                           |                                        |                        |                                        |
|                                                                                             | 40                        | R3050-40-S4            |                                        |                           |                                        |                        |                                        |                           |                                        |                        |                                        |
|                                                                                             | 58                        | R3050-58-S4            |                                        |                           |                                        |                        |                                        |                           |                                        |                        |                                        |
|                                                                                             |                           |                        |                                        |                           |                                        |                        |                                        |                           |                                        |                        |                                        |
|                                                                                             |                           |                        |                                        |                           |                                        |                        |                                        |                           |                                        |                        |                                        |
|                                                                                             |                           | Δp <sub>S</sub><br>kPa | Δp <sub>max</sub> <sup>2)</sup><br>kPa | Δp <sub>S</sub><br>kPa    | Δp <sub>max</sub> <sup>2)</sup><br>kPa | Δp <sub>S</sub><br>kPa | Δp <sub>max</sub> <sup>2)</sup><br>kPa | Δp <sub>S</sub><br>kPa    | Δp <sub>max</sub> <sup>2)</sup><br>kPa | Δp <sub>S</sub><br>kPa | Δp <sub>max</sub> <sup>2)</sup><br>kPa |

| Suitable actuators | Nominal torque | Open/close | 3-point | Modulating (2...10 V) | Fail-safe | Nominal voltage AC/DC 24 V AC 230 V | Running time motor 90° | Running time fail-safe | Actuator type |
|--------------------|----------------|------------|---------|-----------------------|-----------|-------------------------------------|------------------------|------------------------|---------------|
|--------------------|----------------|------------|---------|-----------------------|-----------|-------------------------------------|------------------------|------------------------|---------------|

|                                                                                    |      |   |   |   |  |       |       |                        |          |
|------------------------------------------------------------------------------------|------|---|---|---|--|-------|-------|------------------------|----------|
| Compact actuators                                                                  |      |   |   |   |  |       |       |                        |          |
|  | 2 Nm | ■ | ■ |   |  | 24 V  | 100 s | TR24 <sup>3)</sup>     | 1400 350 |
|                                                                                    |      |   | ■ |   |  | 230 V | 105 s | TR230-3 <sup>3)</sup>  | 1400 350 |
|                                                                                    |      |   |   | ■ |  | 24 V  | 90 s  | TR24-SR <sup>3)</sup>  | 1400 350 |
|                                                                                    |      |   |   | ■ |  | 24 V  | 35 s  | TRY24-SR <sup>3)</sup> | 1400 350 |

|                                                                                    |       |   |   |   |  |       |      |          |       | Without<br>auxiliary switch |     | With<br>auxiliary switch |     |      |     |      |     |      |     |      |     |  |  |
|------------------------------------------------------------------------------------|-------|---|---|---|--|-------|------|----------|-------|-----------------------------|-----|--------------------------|-----|------|-----|------|-----|------|-----|------|-----|--|--|
| Standard actuators                                                                 |       |   |   |   |  |       |      |          |       |                             |     |                          |     |      |     |      |     |      |     |      |     |  |  |
|  | 5 Nm  | ■ | ■ |   |  | 24 V  | 90 s | LR24A    | ...-S | 1400                        | 350 | 1400                     | 350 | 1400 | 350 |      |     |      |     |      |     |  |  |
|                                                                                    |       | ■ | ■ |   |  | 230 V |      | LR230A   | ...-S | 1400                        | 350 | 1400                     | 350 | 1400 | 350 |      |     |      |     |      |     |  |  |
|                                                                                    |       |   |   | ■ |  | 24 V  |      | LR24A-SR |       | 1400                        | 350 | 1400                     | 350 | 1400 | 350 |      |     |      |     |      |     |  |  |
|                                                                                    |       | ■ | ■ |   |  | 24 V  |      | NR24A    | ...-S | 1400                        | 350 | 1400                     | 350 | 1400 | 350 | 1400 | 350 | 1400 | 350 |      |     |  |  |
|  | 10 Nm | ■ | ■ |   |  | 230 V | 90 s | NR230A   | ...-S | 1400                        | 350 | 1400                     | 350 | 1400 | 350 | 1400 | 350 | 1400 | 350 |      |     |  |  |
|                                                                                    |       |   |   | ■ |  | 24 V  |      | NR24A-SR |       | 1400                        | 350 | 1400                     | 350 | 1400 | 350 | 1400 | 350 | 1400 | 350 |      |     |  |  |
|                                                                                    |       | ■ | ■ |   |  | 24 V  |      | SR24A    | ...-S | 1400                        | 350 | 1400                     | 350 | 1400 | 350 | 1400 | 350 | 1400 | 350 | 1400 | 350 |  |  |
|                                                                                    |       | ■ | ■ |   |  | 230 V |      | SR230A   | ...-S | 1400                        | 350 | 1400                     | 350 | 1400 | 350 | 1400 | 350 | 1400 | 350 | 1400 | 350 |  |  |
|  | 20 Nm |   |   | ■ |  | 24 V  | 90 s | SR24A-SR |       | 1400                        | 350 | 1400                     | 350 | 1400 | 350 | 1400 | 350 | 1400 | 350 | 1400 | 350 |  |  |



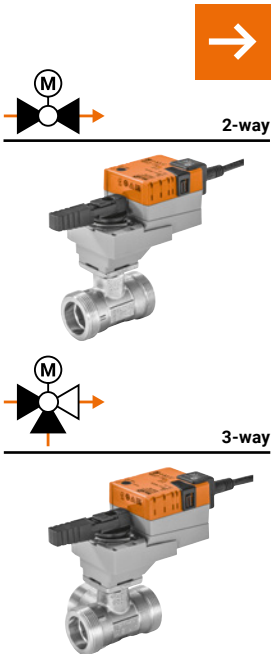

| Fast running actuators |       |   |      |      |           |  |  |  |  |      |     |      |     |      |     |      |     |      |     |
|------------------------|-------|---|------|------|-----------|--|--|--|--|------|-----|------|-----|------|-----|------|-----|------|-----|
| TRF..                  | 2 Nm  | ■ | 24 V | 15 s | TRC24A-SR |  |  |  |  | 1400 | 350 |      |     |      |     |      |     |      |     |
|                        | 5 Nm  | ■ | 24 V | 35 s | LRC24A-SR |  |  |  |  | 1400 | 350 | 1400 | 350 | 1400 | 350 |      |     |      |     |
|                        | 10 Nm | ■ | 24 V | 35 s | NRC24A-SR |  |  |  |  | 1400 | 350 | 1400 | 350 | 1400 | 350 | 1400 | 350 | 1400 | 350 |
|                        | 20 Nm | ■ | 24 V | 35 s | SRC24A-SR |  |  |  |  | 1400 | 350 | 1400 | 350 | 1400 | 350 | 1400 | 350 | 1400 | 350 |

|                                                                                     |                           |  |  |   |   |      |       |       |           |       |                          |                           |                          |                           |      |     |      |     |      |     |      |     |  |  |
|-------------------------------------------------------------------------------------|---------------------------|--|--|---|---|------|-------|-------|-----------|-------|--------------------------|---------------------------|--------------------------|---------------------------|------|-----|------|-----|------|-----|------|-----|--|--|
|  |                           |  |  |   |   |      |       |       |           |       | Actuator type NC         |                           | Actuator type NO         |                           |      |     |      |     |      |     |      |     |  |  |
|                                                                                     |                           |  |  |   |   |      |       |       |           |       | Without auxiliary switch | With 2 auxiliary switches | Without auxiliary switch | With 2 auxiliary switches |      |     |      |     |      |     |      |     |  |  |
|  | Fail-safe actuators NC/NO |  |  |   |   |      |       |       |           |       |                          |                           |                          |                           |      |     |      |     |      |     |      |     |  |  |
|                                                                                     | 2.5 Nm                    |  |  | ■ | ■ | 24 V | 90 s  | <25 s | TRF24-SR  |       | ..-0                     |                           |                          | 1400                      | 350  |     |      |     |      |     |      |     |  |  |
|                                                                                     | 4 Nm                      |  |  | ■ | ■ | 24 V | 150 s | <20 s | LRF24-SR  |       |                          |                           | 1400                     | 350                       | 1400 | 350 | 1400 | 350 |      |     |      |     |  |  |
|                                                                                     | 10 Nm                     |  |  | ■ | ■ | 24 V | 90 s  | <20 s | NRF24A-SR | ..-S2 | ..-0                     | ..-S2-0                   | 1400                     | 350                       | 1400 | 350 | 1400 | 350 | 1400 | 350 |      |     |  |  |
|                                                                                     | 20 Nm                     |  |  | ■ | ■ | 24 V | 90 s  | <20 s | SRF24A-SR | ..-S2 | ..-0                     | ..-S2-0                   | 1400                     | 350                       | 1400 | 350 | 1400 | 350 | 1400 | 350 | 1400 | 350 |  |  |

<sup>1)</sup> Compact actuators TR../TRY.. only up to 100°C.  
<sup>2)</sup> Low-noise operation Δp<sub>max</sub> = 200 kPa.  
<sup>3)</sup> If fluid temperature ≥100°C, then pipeline and valve must be insulated.

DN 15...50

|                                |                                                                                                                                                                |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Field of use                   | Closed and open water systems (pH >7)                                                                                                                          |
| Fluid temperature              | –10...100 °C                                                                                                                                                   |
| Pipe connection                | External thread G (ISO 228-1)                                                                                                                                  |
| Leakage rate                   | 2-way: air-bubble tight, leakage rate A (EN 12266-1)<br>3-way: control path A–AB: air-bubble tight, leakage rate A (EN 12266-1) / bypass B–AB: leakage class I |
| Flow characteristic            | 2-way: equal percentage<br>3-way: control path A–AB: equal percentage / bypass B–AB: linear (linear flow 70% of the K <sub>VS</sub> value)                     |
| Permissible operating pressure | p <sub>S</sub> : 1600 kPa                                                                                                                                      |

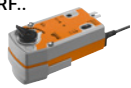


| PN 40              |            |                    |            |                    |            | PN 25 |  |                    |            |                    |            |       |      |
|--------------------|------------|--------------------|------------|--------------------|------------|-------|--|--------------------|------------|--------------------|------------|-------|------|
| DN 15              |            | DN 20              |            | DN 25              |            | DN 32 |  | DN 32              |            | DN 40              |            | DN 50 |      |
| $K_{vs}$<br>[m³/h] | Valve type |                    |            |                    |            |       |  |                    |            |                    |            |       |      |
| 0.63               | R409       |                    |            |                    |            |       |  |                    |            |                    |            |       |      |
| 1                  | R410       |                    |            |                    |            |       |  |                    |            |                    |            |       |      |
| 1.6                | R411       | $K_{vs}$<br>[m³/h] | Valve type | $K_{vs}$<br>[m³/h] | Valve type |       |  |                    |            |                    |            |       |      |
| 2.5                | R412       | 4                  | R417       | 6.3                | R422       |       |  | $K_{vs}$<br>[m³/h] | Valve type | $K_{vs}$<br>[m³/h] | Valve type |       |      |
| 4                  | R413       | 6.3                | R418       | 10                 | R423       |       |  | 16                 | R431       | 16                 | R438       | 25    | R448 |
| 6.3                | R414       | 8.6                | R419       | 16                 | R424       |       |  | 25                 | R439       | 40                 | R449       |       |      |

DN 15...50

|                                |                                                                                                                                                                      |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Field of use                   | 2-way: closed and open water systems (pH >7)<br>3-way: closed water systems (pH >7)                                                                                  |
| Fluid temperature              | -10...100°C                                                                                                                                                          |
| Pipe connection                | Flange PN 6 (EN 1092-1/4)                                                                                                                                            |
| Leakage rate                   | 2-way: air-bubble tight, leakage rate A (EN 12266-1)<br>3-way: control path A-AB: air-bubble tight,<br>leakage rate A (EN 12266-1) / bypass B-AB:<br>leakage class I |
| Flow characteristic            | 2-way: equal percentage<br>3-way: control path A-AB: equal percentage /<br>bypass B-AB: linear<br>(linear flow 70% of the K <sub>VS</sub> value)                     |
| Permissible operating pressure | p <sub>S</sub> : 600 kPa                                                                                                                                             |

|                                                                                             |                    | PN 6                |                         |                     |                         | PN 6                |                         |                     |                         |                     |                         |                     |                         |             |  |
|---------------------------------------------------------------------------------------------|--------------------|---------------------|-------------------------|---------------------|-------------------------|---------------------|-------------------------|---------------------|-------------------------|---------------------|-------------------------|---------------------|-------------------------|-------------|--|
|                                                                                             |                    | DN 15               |                         | DN 20               |                         | DN 25               |                         | DN 32               |                         | DN 40               |                         | DN 50               |                         |             |  |
| <br>2-way | $K_{vs}$<br>[m³/h] | 0.63                |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |             |  |
|                                                                                             | Valve type         | R6015RP63-B1        |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |             |  |
|                                                                                             | 1                  | R6015R1-B1          |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |             |  |
|                                                                                             | 1.6                | R6015R1P6-B1        |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |             |  |
|                                                                                             | 2.5                | R6015R2P5-B1        |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |             |  |
|          | 4                  | R6015R4-B1          |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |             |  |
|                                                                                             |                    | $K_{vs}$<br>[m³/h]  | Valve type              | $K_{vs}$<br>[m³/h]  | Valve type              | $K_{vs}$<br>[m³/h]  | Valve type              | $K_{vs}$<br>[m³/h]  | Valve type              | $K_{vs}$<br>[m³/h]  | Valve type              | $K_{vs}$<br>[m³/h]  | Valve type              |             |  |
|                                                                                             | 6.3                | R6020R6P3-B1        |                         | 10                  | R6025R10-B2             |                     | 16                      | R6032R16-B3         |                         | 25                  | R6040R25-B3             |                     | 40                      | R6050R40-B3 |  |
|                                                                                             |                    |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |             |  |
|                                                                                             |                    |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |             |  |
| <br>3-way | $K_{vs}$<br>[m³/h] | 0.63                |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |             |  |
|                                                                                             | Valve type         | R7015RP63-B1        |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |             |  |
|                                                                                             | 1.6                | R7015R1P6-B1        |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |             |  |
|                                                                                             | 4                  | R7015R4-B1          |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |             |  |
|                                                                                             |                    | $K_{vs}$<br>[m³/h]  | Valve type              | $K_{vs}$<br>[m³/h]  | Valve type              | $K_{vs}$<br>[m³/h]  | Valve type              | $K_{vs}$<br>[m³/h]  | Valve type              | $K_{vs}$<br>[m³/h]  | Valve type              | $K_{vs}$<br>[m³/h]  | Valve type              |             |  |
|         | 6.3                | R7020R6P3-B1        |                         | 10                  | R7025R10-B2             |                     | 16                      | R7032R16-B3         |                         | 16                  | R7040R16-B3             |                     | 25                      | R7050R25-B3 |  |
|                                                                                             |                    |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |             |  |
|                                                                                             |                    |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |             |  |
|                                                                                             |                    |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |             |  |
|                                                                                             |                    |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |             |  |
|                                                                                             |                    | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa |             |  |

| Suitable actuators                                                                  | Nominal torque                                                                      | Open/close | 3-point | Modulating (2...10 V) | Fail-safe | Nominal voltage<br>AC/DC 24 V<br>AC 230 V | Running time motor 90° | Running time fail-safe | Actuator type            |  |                          | 1.6 [m³/h] Valve type     |                | 6.3 [m³/h] Valve type |                | 10 [m³/h] Valve type |                        | 16 [m³/h] Valve type     |                        | 16 [m³/h] Valve type     |                        | 25 [m³/h] Valve type     |                        |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------|---------|-----------------------|-----------|-------------------------------------------|------------------------|------------------------|--------------------------|--------------------------------------------------------------------------------------|--------------------------|---------------------------|----------------|-----------------------|----------------|----------------------|------------------------|--------------------------|------------------------|--------------------------|------------------------|--------------------------|------------------------|
|                                                                                     |                                                                                     |            |         |                       |           |                                           |                        |                        |                          | 4 R7015R1P6-B1                                                                       | R7015R4-B1               | R7020R6P3-B1              | 10 R7025R10-B2 | 16 R7032R16-B3        | 16 R7040R16-B3 | 25 R7050R25-B3       | Δp <sub>S</sub><br>kPa | Δp <sub>max</sub><br>kPa | Δp <sub>S</sub><br>kPa | Δp <sub>max</sub><br>kPa | Δp <sub>S</sub><br>kPa | Δp <sub>max</sub><br>kPa | Δp <sub>S</sub><br>kPa |
| Compact actuators                                                                   |                                                                                     |            |         |                       |           |                                           |                        |                        |                          |                                                                                      |                          |                           |                |                       |                |                      |                        |                          |                        |                          |                        |                          |                        |
|  | 2 Nm                                                                                | ■          | ■       |                       |           | 24 V                                      | 100 s                  |                        | TR24                     |                                                                                      | 600                      | 100                       | 600            | 100                   |                |                      |                        |                          |                        |                          |                        |                          |                        |
|                                                                                     |                                                                                     |            | ■       |                       |           | 230 V                                     | 105 s                  |                        | TR230-3                  |                                                                                      | 600                      | 100                       | 600            | 100                   |                |                      |                        |                          |                        |                          |                        |                          |                        |
|                                                                                     |                                                                                     |            |         | ■                     |           | 24 V                                      | 90 s                   |                        | TR24-SR                  |                                                                                      | 600                      | 100                       | 600            | 100                   |                |                      |                        |                          |                        |                          |                        |                          |                        |
|                                                                                     |                                                                                     |            |         | ■                     |           | 24 V                                      | 35 s                   |                        | TRY24-SR                 |                                                                                      | 600                      | 100                       | 600            | 100                   |                |                      |                        |                          |                        |                          |                        |                          |                        |
|                                                                                     |                                                                                     |            |         |                       |           |                                           |                        |                        |                          | Without auxiliary switch                                                             |                          | With auxiliary switch     |                |                       |                |                      |                        |                          |                        |                          |                        |                          |                        |
| Standard actuators                                                                  |                                                                                     |            |         |                       |           |                                           |                        |                        |                          |                                                                                      |                          |                           |                |                       |                |                      |                        |                          |                        |                          |                        |                          |                        |
|   | 5 Nm                                                                                | ■          | ■       |                       |           | 24 V                                      | 90 s                   |                        | LR24A                    | --S                                                                                  | 600                      | 100                       | 600            | 100                   | 600            | 100                  |                        |                          |                        |                          |                        |                          |                        |
|                                                                                     |                                                                                     | ■          | ■       |                       | 230 V     | LR230A                                    |                        | --S                    | 600                      | 100                                                                                  | 600                      | 100                       | 600            | 100                   |                |                      |                        |                          |                        |                          |                        |                          |                        |
|                                                                                     |                                                                                     |            |         | ■                     |           | 24 V                                      |                        | LR24A-SR               |                          | 600                                                                                  | 100                      | 600                       | 100            | 600                   | 100            |                      |                        |                          |                        |                          |                        |                          |                        |
|                                                                                     |                                                                                     |            |         |                       |           | 24 V                                      |                        | NR24A                  | --S                      | 600                                                                                  | 100                      | 600                       | 100            | 600                   | 100            | 600                  | 100                    | 600                      | 100                    | 600                      | 100                    |                          |                        |
|                                                                                     | 10 Nm                                                                               | ■          | ■       |                       |           | 230 V                                     | 90 s                   |                        | NR230A                   | --S                                                                                  | 600                      | 100                       | 600            | 100                   | 600            | 100                  | 600                    | 100                      | 600                    | 100                      | 600                    | 100                      |                        |
|                                                                                     |                                                                                     |            |         |                       |           | 24 V                                      |                        | NR24A-SR               |                          | 600                                                                                  | 100                      | 600                       | 100            | 600                   | 100            | 600                  | 100                    | 600                      | 100                    | 600                      | 100                    |                          |                        |
|                                                                                     |                                                                                     |            |         | ■                     |           | 24 V                                      |                        | SR24A                  | --S                      | 600                                                                                  | 100                      | 600                       | 100            | 600                   | 100            | 600                  | 100                    | 600                      | 100                    | 600                      | 100                    |                          |                        |
|                                                                                     |                                                                                     |            |         | ■                     |           | 230 V                                     |                        | SR230A                 | --S                      | 600                                                                                  | 100                      | 600                       | 100            | 600                   | 100            | 600                  | 100                    | 600                      | 100                    | 600                      | 100                    |                          |                        |
|   | 20 Nm                                                                               |            |         | ■                     |           | 24 V                                      | 90 s                   |                        | SR24A-SR                 |                                                                                      | 600                      | 100                       | 600            | 100                   | 600            | 100                  | 600                    | 100                      | 600                    | 100                      | 600                    | 100                      |                        |
|                                                                                     |                                                                                     |            |         |                       |           | 24 V                                      |                        |                        | 600                      | 100                                                                                  | 600                      | 100                       | 600            | 100                   | 600            | 100                  | 600                    | 100                      | 600                    | 100                      |                        |                          |                        |
|                                                                                     |                                                                                     |            |         |                       |           | 24 V                                      |                        |                        | 600                      | 100                                                                                  | 600                      | 100                       | 600            | 100                   | 600            | 100                  | 600                    | 100                      | 600                    | 100                      |                        |                          |                        |
|                                                                                     |                                                                                     |            |         |                       |           | 24 V                                      |                        |                        | 600                      | 100                                                                                  | 600                      | 100                       | 600            | 100                   | 600            | 100                  | 600                    | 100                      | 600                    | 100                      |                        |                          |                        |
| Fast running actuators                                                              |                                                                                     |            |         |                       |           |                                           |                        |                        |                          |                                                                                      |                          |                           |                |                       |                |                      |                        |                          |                        |                          |                        |                          |                        |
|  | 2 Nm                                                                                |            |         | ■                     |           | 24 V                                      | 15 s                   |                        | TRC24A-SR                |                                                                                      | 600                      | 100                       | 600            | 100                   |                |                      |                        |                          |                        |                          |                        |                          |                        |
|                                                                                     | 5 Nm                                                                                |            |         | ■                     |           | 24 V                                      | 35 s                   |                        | LRC24A-SR                |                                                                                      | 600                      | 100                       | 600            | 100                   | 600            | 100                  |                        |                          |                        |                          |                        |                          |                        |
|                                                                                     | 10 Nm                                                                               |            |         | ■                     |           | 24 V                                      | 35 s                   |                        | NRC24A-SR                |                                                                                      | 600                      | 100                       | 600            | 100                   | 600            | 100                  | 600                    | 100                      | 600                    | 100                      | 600                    | 100                      |                        |
|                                                                                     | 20 Nm                                                                               |            |         | ■                     |           | 24 V                                      | 35 s                   |                        | SRC24A-SR                |                                                                                      | 600                      | 100                       | 600            | 100                   | 600            | 100                  | 600                    | 100                      | 600                    | 100                      | 600                    | 100                      |                        |
|  |                                                                                     |            |         |                       |           |                                           |                        |                        | Actuator type NC         |                                                                                      | Actuator type NO         |                           |                |                       |                |                      |                        |                          |                        |                          |                        |                          |                        |
|                                                                                     |                                                                                     |            |         |                       |           |                                           |                        |                        | Without auxiliary switch | With 2 auxiliary switches                                                            | Without auxiliary switch | With 2 auxiliary switches |                |                       |                |                      |                        |                          |                        |                          |                        |                          |                        |
|                                                                                     | Fail-safe actuators NC/NO                                                           |            |         |                       |           |                                           |                        |                        |                          |                                                                                      |                          |                           |                |                       |                |                      |                        |                          |                        |                          |                        |                          |                        |
|                                                                                     |  | 2.5 Nm     |         |                       | ■         | ■                                         | 24 V                   | 90 s                   | <25 s                    | TRF24-SR                                                                             | --O                      | 600                       | 100            | 600                   | 100            |                      |                        |                          |                        |                          |                        |                          |                        |
| 4 Nm                                                                                |                                                                                     |            |         | ■                     | ■         | 24 V                                      | 150 s                  | <20 s                  | LRF24-SR                 |                                                                                      | 600                      | 100                       | 600            | 100                   | 600            | 100                  |                        |                          |                        |                          |                        |                          |                        |
| 10 Nm                                                                               |                                                                                     |            |         | ■                     | ■         | 24 V                                      | 90 s                   | <20 s                  | NRF24A-SR                | --S2                                                                                 | 600                      | 100                       | 600            | 100                   | 600            | 100                  | 600                    | 100                      | 600                    | 100                      | 600                    | 100                      |                        |
| 20 Nm                                                                               |                                                                                     |            |         | ■                     | ■         | 24 V                                      | 90 s                   | <20 s                  | SRF24A-SR                | --S2                                                                                 | 600                      | 100                       | 600            | 100                   | 600            | 100                  | 600                    | 100                      | 600                    | 100                      | 600                    | 100                      |                        |

DN 65...150

|                                |                                               |
|--------------------------------|-----------------------------------------------|
| Field of use                   | Closed water systems (pH >7)                  |
| Fluid temperature              | -10...120°C                                   |
| Pipe connection                | Flange PN 16 (EN 1092-2)                      |
| Leakage rate                   | Air-bubble tight, leakage rate A (EN 12266-1) |
| Flow characteristic            | Equal percentage                              |
| Permissible operating pressure | p <sub>s</sub> : 1600 kPa                     |

|  |  |  |  |  |  |  |  |  |  | <div>→</div> <div>PN 16</div> <div>PN 16</div>             |  |                                                                        |  |                                                            |  |                                                                        |  |                                                            |  |
|--|--|--|--|--|--|--|--|--|--|------------------------------------------------------------|--|------------------------------------------------------------------------|--|------------------------------------------------------------|--|------------------------------------------------------------------------|--|------------------------------------------------------------|--|
|  |  |  |  |  |  |  |  |  |  | DN 65                                                      |  | DN 80                                                                  |  | DN 100                                                     |  | DN 125                                                                 |  | DN 150                                                     |  |
|  |  |  |  |  |  |  |  |  |  | <div><div></div><div>K<sub>vs</sub><br/>[m³/h]</div></div> |  | <div><div></div><div>K<sub>vs</sub><br/>[m³/h]</div></div>             |  | <div><div></div><div>K<sub>vs</sub><br/>[m³/h]</div></div> |  | <div><div></div><div>K<sub>vs</sub><br/>[m³/h]</div></div>             |  | <div><div></div><div>K<sub>vs</sub><br/>[m³/h]</div></div> |  |
|  |  |  |  |  |  |  |  |  |  | Valve type                                                 |  | Valve type                                                             |  | Valve type                                                 |  | Valve type                                                             |  | Valve type                                                 |  |
|  |  |  |  |  |  |  |  |  |  | 63                                                         |  | 100                                                                    |  | 160                                                        |  | 250                                                                    |  | 320                                                        |  |
|  |  |  |  |  |  |  |  |  |  | R6065W63-S8                                                |  | R6080W100-S8                                                           |  | R6100W160-S8                                               |  | R6125W250-S8                                                           |  | R6150W320-S8                                               |  |
|  |  |  |  |  |  |  |  |  |  |                                                            |  |                                                                        |  |                                                            |  |                                                                        |  |                                                            |  |
|  |  |  |  |  |  |  |  |  |  | <div><div></div><div>Δp<sub>s</sub><br/>kPa</div></div>    |  | <div><div></div><div>Δp<sub>max</sub><sup>3)</sup><br/>kPa</div></div> |  | <div><div></div><div>Δp<sub>s</sub><br/>kPa</div></div>    |  | <div><div></div><div>Δp<sub>max</sub><sup>3)</sup><br/>kPa</div></div> |  | <div><div></div><div>Δp<sub>s</sub><br/>kPa</div></div>    |  |
|  |  |  |  |  |  |  |  |  |  |                                                            |  |                                                                        |  |                                                            |  |                                                                        |  |                                                            |  |
|  |  |  |  |  |  |  |  |  |  |                                                            |  |                                                                        |  |                                                            |  |                                                                        |  |                                                            |  |
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|  |  |  |  |  |  |  |  |  |  |                                                            |  |                                                                        |  |                                                            |  |                                                                        |  |                                                            |  |
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|  |  |  |  |  |  |  |  |  |  |                                                            |  |                                                                        |  |                                                            |  |                                                                        |  |                                                            |  |
|  |  |  |  |  |  |  |  |  |  |                                                            |  |                                                                        |  |                                                            |  |                                                                        |  |                                                            |  |
|  |  |  |  |  |  |  |  |  |  |                                                            |  |                                                                        |  |                                                            |  |                                                                        |  |                                                            |  |
|  |  |  |  |  |  |  |  |  |  |                                                            |  |                                                                        |  |                                                            |  |                                                                        |  |                                                            |  |
|  |  |  |  |  |  |  |  |  |  |                                                            |  |                                                                        |  |                                                            |  |                                                                        |  |                                                            |  |
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|  |  |  |  |  |  |  |  |  |  |                                                            |  |                                                                        |  |                                                            |  |                                                                        |  |                                                            |  |
|  |  |  |  |  |  |  |  |  |  |                                                            |  |                                                                        |  |                                                            |  |                                                                        |  |                                                            |  |
|  |  |  |  |  |  |  |  |  |  |                                                            |  |                                                                        |  |                                                            |  |                                                                        |  |                                                            |  |
|  |  |  |  |  |  |  |  |  |  |                                                            |  |                                                                        |  |                                                            |  |                                                                        |  |                                                            |  |
|  |  |  |  |  |  |  |  |  |  |                                                            |  |                                                                        |  |                                                            |  |                                                                        |  |                                                            |  |
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DN 10...20

|                                |                                               |
|--------------------------------|-----------------------------------------------|
| Field of use                   | Closed and open water systems (pH >7)         |
| Fluid temperature              | 2...130°C                                     |
| Pipe connection                | External thread G (ISO 228-1)                 |
| Leakage rate                   | Air-bubble tight, leakage rate A (EN 12266-1) |
| Flow characteristic            | Equal percentage                              |
| Permissible operating pressure | p <sub>S</sub> : 2700 kPa                     |

| Suitable actuators                                                                  | Nominal torque         | Open/close | 3-point | Modulating (2...10 V) | Fail-safe | Nominal voltage<br>AC/DC 24 V<br>AC 230 V | Running time motor 90° | Running time fail-safe | Actuator type          | 2-way                                                                              |                                                                                    | PN 40                  |                           |                                                                                     |                        |                           |                                                                                     |                        |                           |                         |
|-------------------------------------------------------------------------------------|------------------------|------------|---------|-----------------------|-----------|-------------------------------------------|------------------------|------------------------|------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------|---------------------------|-------------------------------------------------------------------------------------|------------------------|---------------------------|-------------------------------------------------------------------------------------|------------------------|---------------------------|-------------------------|
|                                                                                     |                        |            |         |                       |           |                                           |                        |                        |                        |  | K <sub>vs</sub><br>[m³/h]                                                          | DN 10                  |                           |                                                                                     | DN 15                  |                           |                                                                                     | DN 20                  |                           |                         |
|                                                                                     |                        |            |         |                       |           |                                           |                        |                        |                        |                                                                                    |                                                                                    | Δp <sub>s</sub><br>kPa | Δp <sub>v100</sub><br>kPa | Δp <sub>v0</sub><br>kPa                                                             | Δp <sub>s</sub><br>kPa | Δp <sub>v100</sub><br>kPa | Δp <sub>v0</sub><br>kPa                                                             | Δp <sub>s</sub><br>kPa | Δp <sub>v100</sub><br>kPa | Δp <sub>v0</sub><br>kPa |
|  | Standard actuators     |            |         |                       |           |                                           |                        |                        |                        |                                                                                    |  | 0.3                    | R404DK                    |  | 2.5                    | R412D                     |  | 6.3                    | R417D                     |                         |
|                                                                                     | 5 Nm                   | ■          | ■       |                       |           | 24 V                                      | 90 s                   | LR24A                  |                        | 0.4                                                                                |                                                                                    | R405DK                 | 4                         |                                                                                     | R413D                  | 10                        |                                                                                     | R418D                  |                           |                         |
|                                                                                     |                        | ■          | ■       |                       |           | 230 V                                     |                        |                        |                        | 0.63                                                                               |                                                                                    | R406DK                 | 6.3                       |                                                                                     | R414D                  | 16                        |                                                                                     | R419D                  |                           |                         |
|                                                                                     |                        |            |         | ■                     |           | 24 V                                      |                        | LR24A-SR               |                        | 1                                                                                  |                                                                                    | R407DK                 | 2.5                       |                                                                                     | R412D                  | 6.3                       |                                                                                     | R417D                  |                           |                         |
|  | Fast running actuators |            |         |                       |           |                                           |                        |                        |                        |                                                                                    |  | 1.6                    | R408DK                    |  | 4                      | R413D                     |  | 10                     | R418D                     |                         |
|                                                                                     | 5 Nm                   |            |         | ■                     |           |                                           | 35 s                   | LRC24A-SR              |                        |                                                                                    |                                                                                    | 2.5                    | R412D                     |                                                                                     | 6.3                    | R417D                     |                                                                                     |                        |                           |                         |
|  | Fail-safe actuators NC |            |         |                       |           |                                           |                        |                        |                        |                                                                                    |  | 2.5                    | R409DK                    |  | 6.3                    | R414D                     |  | 16                     | R419D                     |                         |
|                                                                                     | 4 Nm                   |            |         | ■                     | ■         |                                           | 150 s                  | <20 s                  | LRF24-SR <sup>1)</sup> |                                                                                    |                                                                                    | 1400                   | 400                       |                                                                                     | 800                    | 1400                      |                                                                                     | 400                    | 800                       | 1400                    |

<sup>1)</sup> If fluid temperature ≥100°C, then pipeline and valve must be insulated.



Globe valves

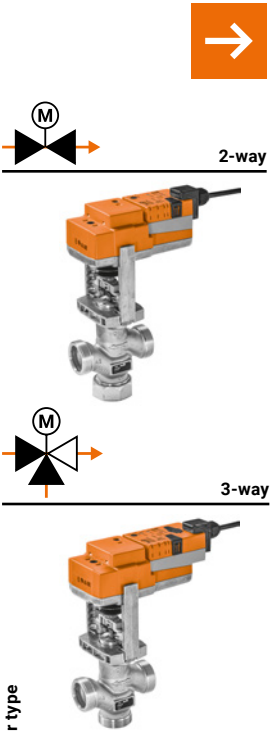
Energy-optimised control of steam and water systems

|                 |               |                                                |                 |    |
|-----------------|---------------|------------------------------------------------|-----------------|----|
| External thread | 2-way – 3-way | PN 16                                          | DN 15...50      | 50 |
| Flange          | 2-way – 3-way | PN 6                                           | DN 15...100     | 52 |
|                 | 2-way – 3-way | PN 16 / ≤120°C                                 | DN 15...150     | 54 |
|                 | 2-way – 3-way | PN 16 / ≤150°C                                 | DN 15...150     | 56 |
|                 | 2-way         | PN 16 partially pressure-balanced              | DN 40...150     | 58 |
|                 | 2-way – 3-way | PN 16                                          | DN 200 / DN 250 | 60 |
|                 | 2-way         | PN 25                                          | DN 15...50      | 62 |
|                 | 3-way         | PN 25                                          | DN 15...100     | 64 |
|                 | 2-way         | PN 25 partially pressure-balanced              | DN 65...100     | 66 |
| Internal thread | 2-way – 3-way | PN 25 stainless steel for special applications | DN 15...50      | 68 |

Please refer to the data sheets or notes for project planning for further technical data to be observed.

DN 15...50

|                                |                                                                                                                                                                            |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Field of use                   | Closed and open water systems (pH >7)                                                                                                                                      |
| Fluid temperature              | –10...120°C                                                                                                                                                                |
| Pipe connection                | External thread G (ISO 228-1)                                                                                                                                              |
| Leakage rate                   | 2-way: max. 0.05% of the K <sub>VS</sub> value<br>3-way: control path A–AB: max. 0.05% of the K <sub>VS</sub> value /<br>bypass B–AB: max. 1% of the K <sub>VS</sub> value |
| Flow characteristic            | 2-way: equal percentage<br>3-way: control path A–AB: equal percentage /<br>bypass B–AB: linear                                                                             |
| Permissible operating pressure | p <sub>S</sub> : 1600 kPa                                                                                                                                                  |



| PN 16                                                                                        |                    |            |       | PN 16              |            |                    |            |                    |            |                    |            |
|----------------------------------------------------------------------------------------------|--------------------|------------|-------|--------------------|------------|--------------------|------------|--------------------|------------|--------------------|------------|
| DN 15                                                                                        |                    | DN 20      |       | DN 25              |            | DN 32              |            | DN 40              |            | DN 50              |            |
| <br>2-way | $K_{VS}$<br>[m³/h] | Valve type |       |                    |            |                    |            |                    |            |                    |            |
|                                                                                              | 0.63               | H411B      |       |                    |            |                    |            |                    |            |                    |            |
|                                                                                              | 1                  | H412B      |       |                    |            |                    |            |                    |            |                    |            |
|                                                                                              | 1.6                | H413B      |       |                    |            |                    |            |                    |            |                    |            |
|                                                                                              | 2.5                | H414B      |       |                    |            |                    |            |                    |            |                    |            |
|                                                                                              |                    | 4          | H415B | $K_{VS}$<br>[m³/h] | Valve type | $K_{VS}$<br>[m³/h] | Valve type | $K_{VS}$<br>[m³/h] | Valve type | $K_{VS}$<br>[m³/h] | Valve type |
|                                                                                              |                    |            |       | 6.3                | H420B      | 10                 | H425B      | 16                 | H432B      | 25                 | H440B      |
|                                                                                              |                    |            |       |                    |            |                    |            |                    |            | 40                 | H450B      |
|                                                                                              |                    |            |       |                    |            |                    |            |                    |            |                    |            |
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| Suitable actuators                      |                                                                                     | Actuating force | Actuating time per nominal stroke | Actuating time fail-safe | Open/close | 3-point | Modulating (2...10 V) | Communication MP-Bus <sup>1)</sup> | Fail-safe | Nominal voltage<br>AC/DC 24 V<br>AC 230 V | Actuator type  | 1.6 H512B              |                          | 2.5 H513B              |                          | K <sub>vs</sub> [m³/h] Valve type |                          | K <sub>vs</sub> [m³/h] Valve type |                          | K <sub>vs</sub> [m³/h] Valve type |                          | K <sub>vs</sub> [m³/h] Valve type |                          | K <sub>vs</sub> [m³/h] Valve type |                          |
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|                                         |                                                                                     |                 |                                   |                          |            |         |                       |                                    |           |                                           |                | Δp <sub>s</sub><br>kPa | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa            | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa            | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa            | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa            | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa            | Δp <sub>max</sub><br>kPa |
| Standard actuators                      |                                                                                     |                 |                                   |                          |            |         |                       |                                    |           |                                           |                |                        |                          |                        |                          |                                   |                          |                                   |                          |                                   |                          |                                   |                          |                                   |                          |
| LV..<br>NV..<br>SV..                    |  | 500 N           | 150 s                             |                          | ■          | ■       |                       |                                    |           | 24 V                                      | LV24A-TPC      | 1300                   | 400                      | 900                    | 400                      | 500                               | 400                      | 350                               | 350                      | 150                               | 150                      | 70                                | 70                       |                                   |                          |
|                                         |                                                                                     |                 |                                   |                          | ■          | ■       |                       |                                    |           | 230 V                                     | LV230A-TPC     | 1300                   | 400                      | 900                    | 400                      | 500                               | 400                      | 350                               | 350                      | 150                               | 150                      | 70                                | 70                       |                                   |                          |
|                                         |                                                                                     |                 |                                   |                          |            |         | ■                     |                                    |           | 24 V                                      | LV24A-SR-TPC   | 1300                   | 400                      | 900                    | 400                      | 500                               | 400                      | 350                               | 350                      | 150                               | 150                      | 70                                | 70                       |                                   |                          |
|                                         |                                                                                     |                 |                                   |                          |            |         |                       | ■                                  | ■         |                                           | 24 V           | LV24A-MP-TPC           | 1300                     | 400                    | 900                      | 400                               | 500                      | 400                               | 350                      | 350                               | 150                      | 150                               | 70                       | 70                                |                          |
|                                         | 1000 N                                                                              | 150 s           |                                   | ■                        | ■          |         |                       |                                    | 24 V      | NV24A-TPC                                 | 1600           | 400                    | 1600                     | 400                    | 1300                     | 400                               | 1000                     | 400                               | 500                      | 400                               | 300                      | 300                               |                          |                                   |                          |
|                                         |                                                                                     |                 |                                   | ■                        | ■          |         |                       |                                    | 230 V     | NV230A-TPC                                | 1600           | 400                    | 1600                     | 400                    | 1300                     | 400                               | 1000                     | 400                               | 500                      | 400                               | 300                      | 300                               |                          |                                   |                          |
|                                         |                                                                                     |                 |                                   |                          |            | ■       |                       |                                    | 24 V      | NV24A-SR-TPC                              | 1600           | 400                    | 1600                     | 400                    | 1300                     | 400                               | 1000                     | 400                               | 500                      | 400                               | 300                      | 300                               |                          |                                   |                          |
|                                         |                                                                                     |                 |                                   |                          |            |         | ■                     | ■                                  |           | 24 V                                      | NV24A-MP-TPC   | 1600                   | 400                      | 1600                   | 400                      | 1300                              | 400                      | 1000                              | 400                      | 500                               | 400                      | 300                               | 300                      |                                   |                          |
|                                         | 1500 N                                                                              | 150 s           |                                   | ■                        | ■          |         |                       |                                    | 24 V      | SV24A-TPC                                 | 1600           | 400                    | 1600                     | 400                    | 1600                     | 400                               | 1600                     | 400                               | 900                      | 400                               | 550                      | 400                               |                          |                                   |                          |
|                                         |                                                                                     |                 |                                   | ■                        | ■          |         |                       |                                    | 230 V     | SV230A-TPC                                | 1600           | 400                    | 1600                     | 400                    | 1600                     | 400                               | 1600                     | 400                               | 900                      | 400                               | 550                      | 400                               |                          |                                   |                          |
|                                         |                                                                                     |                 |                                   |                          |            | ■       |                       |                                    | 24 V      | SV24A-SR-TPC                              | 1600           | 400                    | 1600                     | 400                    | 1600                     | 400                               | 1600                     | 400                               | 900                      | 400                               | 550                      | 400                               |                          |                                   |                          |
|                                         |                                                                                     |                 |                                   |                          |            |         | ■                     | ■                                  |           | 24 V                                      | SV24A-MP-TPC   | 1600                   | 400                      | 1600                   | 400                      | 1600                              | 400                      | 1600                              | 400                      | 900                               | 400                      | 550                               | 400                      |                                   |                          |
| Fast running actuators                  |                                                                                     |                 |                                   |                          |            |         |                       |                                    |           |                                           |                |                        |                          |                        |                          |                                   |                          |                                   |                          |                                   |                          |                                   |                          |                                   |                          |
| LVC..<br>NVC..<br>SVC..                 |  | 500 N           | 35 s                              |                          |            |         | ■                     |                                    |           | 24 V                                      | LVC24A-SR-TPC  | 1300                   | 400                      | 900                    | 400                      | 500                               | 400                      | 350                               | 350                      | 150                               | 150                      | 70                                | 70                       |                                   |                          |
|                                         |                                                                                     |                 |                                   |                          |            |         | ■                     | ■                                  |           | 24 V                                      | LVC24A-MP-TPC  | 1300                   | 400                      | 900                    | 400                      | 500                               | 400                      | 350                               | 350                      | 150                               | 150                      | 70                                | 70                       |                                   |                          |
|                                         |                                                                                     | 1000 N          | 35 s                              |                          |            |         | ■                     |                                    |           | 24 V                                      | NVC24A-SR-TPC  | 1600                   | 400                      | 1600                   | 400                      | 1300                              | 400                      | 1000                              | 400                      | 500                               | 400                      | 300                               | 300                      |                                   |                          |
|                                         |                                                                                     |                 |                                   |                          |            |         | ■                     | ■                                  |           | 24 V                                      | NVC24A-MP-TPC  | 1600                   | 400                      | 1600                   | 400                      | 1300                              | 400                      | 1000                              | 400                      | 500                               | 400                      | 300                               | 300                      |                                   |                          |
|                                         | 1500 N                                                                              | 35 s            |                                   |                          |            | ■       |                       |                                    | 24 V      | SVC24A-SR-TPC                             | 1600           | 400                    | 1600                     | 400                    | 1600                     | 400                               | 1600                     | 400                               | 900                      | 400                               | 550                      | 400                               |                          |                                   |                          |
|                                         |                                                                                     |                 |                                   |                          |            | ■       | ■                     |                                    | 24 V      | SVC24A-MP-TPC                             | 1600           | 400                    | 1600                     | 400                    | 1600                     | 400                               | 1600                     | 400                               | 900                      | 400                               | 550                      | 400                               |                          |                                   |                          |
| Fail-safe actuators NC/NO <sup>2)</sup> |                                                                                     |                 |                                   |                          |            |         |                       |                                    |           |                                           |                |                        |                          |                        |                          |                                   |                          |                                   |                          |                                   |                          |                                   |                          |                                   |                          |
| NVK..<br>NVKC..                         |  | 1000 N          | 150 s                             | 35 s                     |            | ■       |                       |                                    | ■         | 24 V                                      | NVK24A-3-TPC   | 1600                   | 400                      | 1600                   | 400                      | 1300                              | 400                      | 1000                              | 400                      | 500                               | 400                      | 300                               | 300                      |                                   |                          |
|                                         |                                                                                     |                 |                                   |                          |            | ■       |                       |                                    | ■         | 230 V                                     | NVK230A-3      | 1600                   | 400                      | 1600                   | 400                      | 1300                              | 400                      | 1000                              | 400                      | 500                               | 400                      | 300                               | 300                      |                                   |                          |
|                                         |                                                                                     |                 |                                   |                          |            |         | ■                     |                                    | ■         | 24 V                                      | NVK24A-SR-TPC  | 1600                   | 400                      | 1600                   | 400                      | 1300                              | 400                      | 1000                              | 400                      | 500                               | 400                      | 300                               | 300                      |                                   |                          |
|                                         |                                                                                     |                 |                                   |                          |            |         | ■                     | ■                                  | ■         | 24 V                                      | NVK24A-MP-TPC  | 1600                   | 400                      | 1600                   | 400                      | 1300                              | 400                      | 1000                              | 400                      | 500                               | 400                      | 300                               | 300                      |                                   |                          |
|                                         |                                                                                     |                 |                                   |                          |            |         | ■                     |                                    | ■         | 24 V                                      | NVKC24A-SR-TPC | 1600                   | 400                      | 1600                   | 400                      | 1300                              | 400                      | 1000                              | 400                      | 500                               | 400                      | 300                               | 300                      |                                   |                          |
|                                         |                                                                                     |                 |                                   |                          |            |         | ■                     | ■                                  | ■         | 24 V                                      | NVKC24A-MP-TPC | 1600                   | 400                      | 1600                   | 400                      | 1300                              | 400                      | 1000                              | 400                      | 500                               | 400                      | 300                               | 300                      |                                   |                          |

<sup>1)</sup> Running times, control signal, stroke limitation, and other functions configurable on MP types with Belimo Assistant 2.  
<sup>2)</sup> The fail-safe position NC/NO of all fail-safe actuators can be adjusted on the actuator. Delivery condition: actuator stem retracted.

## DN 15...100

|                                |                                                                                                                                                    |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| Field of use                   | Closed water systems (pH >7)                                                                                                                       |
| Fluid temperature              | -10...120°C                                                                                                                                        |
| Pipe connection                | Flange PN 6 (ISO 7005-2)                                                                                                                           |
| Leakage rate                   | 2-way: max. 0.05% of the $K_{VS}$ value<br>3-way: control path A-AB: max. 0.05% of the $K_{VS}$ value / bypass B-AB: max. 1% of the $K_{VS}$ value |
| Flow characteristic            | 2-way: equal percentage<br>3-way: control path A-AB: equal percentage / bypass B-AB: linear                                                        |
| Permissible operating pressure | $p_S$ : 600 kPa                                                                                                                                    |



| PN 6                      |            |       |       |       |       |       |       |       |       | PN 6  |       |       |       |       |       |        |        |  |  |
|---------------------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--|--|
| DN 15                     |            | DN 20 |       | DN 25 |       | DN 32 |       | DN 40 |       | DN 50 |       | DN 65 |       | DN 80 |       | DN 100 |        |  |  |
| K <sub>vs</sub><br>[m³/h] | Valve type |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |        |  |  |
|                           | 0.63       | H611R |       |       |       |       |       |       |       |       |       |       |       |       |       |        |        |  |  |
|                           | 1          | H612R |       |       |       |       |       |       |       |       |       |       |       |       |       |        |        |  |  |
|                           | 1.6        | H613R |       |       |       |       |       |       |       |       |       |       |       |       |       |        |        |  |  |
|                           | 2.5        | H614R |       |       |       |       |       |       |       |       |       |       |       |       |       |        |        |  |  |
| 4                         | H615R      | 6.3   | H620R | 10    | H625R | 16    | H632R | 25    | H640R | 40    | H650R | 58    | H664R | 90    | H679R | 145    | H6100R |  |  |

|   |                    |                    |            |                    |            |                    |            |                    |            |                    |            |                    |            |                    |            |                    |            |
|---|--------------------|--------------------|------------|--------------------|------------|--------------------|------------|--------------------|------------|--------------------|------------|--------------------|------------|--------------------|------------|--------------------|------------|
| y | $K_{vs}$<br>[m³/h] | Valve type         |            |                    |            |                    |            |                    |            |                    |            |                    |            |                    |            |                    |            |
|   | 0.63               | H711R              |            |                    |            |                    |            |                    |            |                    |            |                    |            |                    |            |                    |            |
|   | 1                  | H712R              |            |                    |            |                    |            |                    |            |                    |            |                    |            |                    |            |                    |            |
|   | 1.6                | H713R              |            |                    |            |                    |            |                    |            |                    |            |                    |            |                    |            |                    |            |
|   | 2.5                | H714R              |            |                    |            |                    |            |                    |            |                    |            |                    |            |                    |            |                    |            |
| 4 | H715R              | $K_{vs}$<br>[m³/h] | Valve type | $K_{vs}$<br>[m³/h] | Valve type | $K_{vs}$<br>[m³/h] | Valve type | $K_{vs}$<br>[m³/h] | Valve type | $K_{vs}$<br>[m³/h] | Valve type | $K_{vs}$<br>[m³/h] | Valve type | $K_{vs}$<br>[m³/h] | Valve type | $K_{vs}$<br>[m³/h] | Valve type |
|   |                    | 6.3                | H720R      | 10                 | H725R      | 16                 | H732R      | 25                 | H740R      | 40                 | H750R      | 58                 | H764R      | 90                 | H779R      | 145                | H7100R     |

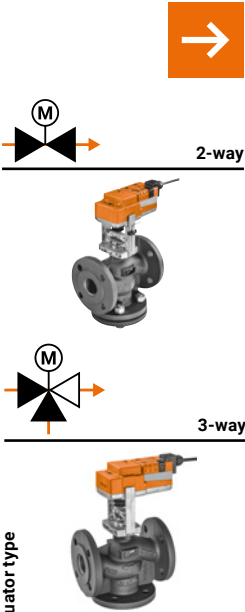
| Suitable actuators                                                                  | Actuating force | Actuating time per nominal stroke | Actuating time fail-safe | Open/close | 3-point | Modulating (2...10 V) | Communication MP-Bus <sup>1)</sup> | Fail-safe     | Nominal voltage AC/DC 24 V AC 230 V | Actuator type |  | 0.65                | H711R                 | K <sub>VS</sub> [m³/h] | Valve type            | K <sub>VS</sub> [m³/h] | Valve type            | K <sub>VS</sub> [m³/h] | Valve type            | K <sub>VS</sub> [m³/h] | Valve type            | K <sub>VS</sub> [m³/h] | Valve type            | K <sub>VS</sub> [m³/h] | Valve type            | K <sub>VS</sub> [m³/h] | Valve type            | K <sub>VS</sub> [m³/h] | Valve type            |     |  |  |
|-------------------------------------------------------------------------------------|-----------------|-----------------------------------|--------------------------|------------|---------|-----------------------|------------------------------------|---------------|-------------------------------------|---------------|------------------------------------------------------------------------------------|---------------------|-----------------------|------------------------|-----------------------|------------------------|-----------------------|------------------------|-----------------------|------------------------|-----------------------|------------------------|-----------------------|------------------------|-----------------------|------------------------|-----------------------|------------------------|-----------------------|-----|--|--|
|                                                                                     |                 |                                   |                          |            |         |                       |                                    |               |                                     |               |                                                                                    | 1                   | H712R                 |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |     |  |  |
|                                                                                     |                 |                                   |                          |            |         |                       |                                    |               |                                     |               |                                                                                    | 1.6                 | H713R                 |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |     |  |  |
|                                                                                     |                 |                                   |                          |            |         |                       |                                    |               |                                     |               |                                                                                    | 2.5                 | H714R                 |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |     |  |  |
| 4                                                                                   | H715R           | 6.3                               | H720R                    | 10         | H725R   | 16                    | H732R                              | 25            | H740R                               | 40            | H750R                                                                              | 58                  | H764R                 | 90                     | H779R                 | 145                    | H7100R                |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |     |  |  |
|                                                                                     |                 |                                   |                          |            |         |                       |                                    |               |                                     |               |                                                                                    | Δp <sub>s</sub> kPa | Δp <sub>max</sub> kPa | Δp <sub>s</sub> kPa    | Δp <sub>max</sub> kPa | Δp <sub>s</sub> kPa    | Δp <sub>max</sub> kPa | Δp <sub>s</sub> kPa    | Δp <sub>max</sub> kPa | Δp <sub>s</sub> kPa    | Δp <sub>max</sub> kPa | Δp <sub>s</sub> kPa    | Δp <sub>max</sub> kPa | Δp <sub>s</sub> kPa    | Δp <sub>max</sub> kPa | Δp <sub>s</sub> kPa    | Δp <sub>max</sub> kPa | Δp <sub>s</sub> kPa    | Δp <sub>max</sub> kPa |     |  |  |
| Standard actuators                                                                  |                 |                                   |                          |            |         |                       |                                    |               |                                     |               |                                                                                    |                     |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |     |  |  |
|   | 500 N           | 150 s                             |                          | ■          | ■       |                       |                                    |               | 24 V                                | LV24A-TPC     | 600                                                                                | 400                 | 600                   | 400                    | 500                   | 400                    | 350                   | 350                    | 150                   | 150                    | 70                    | 70                     |                       |                        |                       |                        |                       |                        |                       |     |  |  |
|                                                                                     |                 |                                   |                          | ■          | ■       |                       |                                    | 230 V         | LV230A-TPC                          | 600           | 400                                                                                | 600                 | 400                   | 500                    | 400                   | 350                    | 350                   | 150                    | 150                   | 70                     | 70                    |                        |                       |                        |                       |                        |                       |                        |                       |     |  |  |
|                                                                                     |                 |                                   |                          |            |         | ■                     |                                    | 24 V          | LV24A-SR-TPC                        | 600           | 400                                                                                | 600                 | 400                   | 500                    | 400                   | 350                    | 350                   | 150                    | 150                   | 70                     | 70                    |                        |                       |                        |                       |                        |                       |                        |                       |     |  |  |
|                                                                                     | 1000 N          | 150 s                             |                          |            |         | ■                     |                                    | 24 V          | LV24A-MP-TPC                        | 600           | 400                                                                                | 600                 | 400                   | 500                    | 400                   | 350                    | 350                   | 150                    | 150                   | 70                     | 70                    |                        |                       |                        |                       |                        |                       |                        |                       |     |  |  |
|                                                                                     |                 |                                   |                          | ■          | ■       |                       |                                    | 24 V          | NV24A-TPC                           | 600           | 400                                                                                | 600                 | 400                   | 600                    | 400                   | 600                    | 400                   | 500                    | 400                   | 300                    | 300                   | 140                    | 140                   | 80                     | 80                    |                        |                       |                        |                       |     |  |  |
|                                                                                     |                 |                                   |                          | ■          | ■       |                       |                                    | 230 V         | NV230A-TPC                          | 600           | 400                                                                                | 600                 | 400                   | 600                    | 400                   | 600                    | 400                   | 500                    | 400                   | 300                    | 300                   | 140                    | 140                   | 80                     | 80                    |                        |                       |                        |                       |     |  |  |
|  | 1500 N          | 150 s                             |                          |            |         | ■                     |                                    | 24 V          | NV24A-SR-TPC                        | 600           | 400                                                                                | 600                 | 400                   | 600                    | 400                   | 600                    | 400                   | 500                    | 400                   | 300                    | 300                   | 140                    | 140                   | 80                     | 80                    |                        |                       |                        |                       |     |  |  |
|                                                                                     |                 |                                   |                          | ■          | ■       |                       |                                    | 24 V          | NV24A-MP-TPC                        | 600           | 400                                                                                | 600                 | 400                   | 600                    | 400                   | 600                    | 400                   | 500                    | 400                   | 300                    | 300                   | 140                    | 140                   | 80                     | 80                    |                        |                       |                        |                       |     |  |  |
|                                                                                     |                 |                                   |                          |            |         | ■                     | ■                                  | 24 V          | SV24A-TPC                           | 600           | 400                                                                                | 600                 | 400                   | 600                    | 400                   | 600                    | 400                   | 600                    | 400                   | 550                    | 400                   | 280                    | 280                   | 160                    | 160                   |                        |                       |                        |                       |     |  |  |
|                                                                                     | 2500 N          | 150 s                             |                          | ■          | ■       |                       |                                    | 230 V         | SV230A-TPC                          | 600           | 400                                                                                | 600                 | 400                   | 600                    | 400                   | 600                    | 400                   | 600                    | 400                   | 550                    | 400                   | 280                    | 280                   | 160                    | 160                   |                        |                       |                        |                       |     |  |  |
|                                                                                     |                 |                                   |                          |            |         |                       |                                    | 24 V          | SV24A-SR-TPC                        | 600           | 400                                                                                | 600                 | 400                   | 600                    | 400                   | 600                    | 400                   | 550                    | 400                   | 280                    | 280                   | 160                    | 160                   |                        |                       |                        |                       |                        |                       |     |  |  |
|                                                                                     |                 |                                   |                          |            |         |                       |                                    | 24 V          | SV24A-MP-TPC                        | 600           | 400                                                                                | 600                 | 400                   | 600                    | 400                   | 600                    | 400                   | 550                    | 400                   | 280                    | 280                   | 160                    | 160                   |                        |                       |                        |                       |                        |                       |     |  |  |
|  | 4500 N          | 150 s                             |                          |            |         |                       |                                    | 24 V          | EV24A-TPC                           |               |                                                                                    |                     |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        | 200                   | 200 |  |  |
|                                                                                     |                 |                                   |                          | ■          | ■       |                       |                                    | 230 V         | EV230A-TPC                          |               |                                                                                    |                     |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        | 200                   | 200 |  |  |
|                                                                                     |                 |                                   |                          |            |         |                       |                                    | 24 V          | EV24A-SR-TPC                        |               |                                                                                    |                     |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        | 200                   | 200 |  |  |
|  | 2500 N          | 35 s                              |                          |            |         |                       |                                    | 24 V          | EV24A-MP-TPC                        |               |                                                                                    |                     |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        | 200                   | 200 |  |  |
|                                                                                     |                 |                                   |                          |            |         | ■                     |                                    | 24 V          | RV24A-SR                            |               |                                                                                    |                     |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |     |  |  |
|                                                                                     |                 |                                   |                          |            |         |                       |                                    |               |                                     |               |                                                                                    |                     |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |     |  |  |
| Fast running actuators                                                              |                 |                                   |                          |            |         |                       |                                    |               |                                     |               |                                                                                    |                     |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |     |  |  |
|  | 500 N           | 35 s                              |                          |            |         | ■                     |                                    |               | 24 V                                | LVC24A-SR-TPC | 600                                                                                | 400                 | 600                   | 400                    | 500                   | 400                    | 350                   | 350                    | 150                   | 150                    | 70                    | 70                     |                       |                        |                       |                        |                       |                        |                       |     |  |  |
|                                                                                     |                 |                                   |                          |            |         | ■                     | ■                                  | 24 V          | LVC24A-MP-TPC                       | 600           | 400                                                                                | 600                 | 400                   | 500                    | 400                   | 350                    | 350                   | 150                    | 150                   | 70                     | 70                    |                        |                       |                        |                       |                        |                       |                        |                       |     |  |  |
|                                                                                     |                 |                                   |                          |            |         | ■                     |                                    | 24 V          | NVC24A-SR-TPC                       | 600           | 400                                                                                | 600                 | 400                   | 600                    | 400                   | 600                    | 400                   | 500                    | 400                   | 300                    | 300                   | 140                    | 140                   | 80                     | 80                    |                        |                       |                        |                       |     |  |  |
|                                                                                     | 1000 N          | 35 s                              |                          |            |         |                       | ■                                  | ■             | 24 V                                | NVC24A-MP-TPC | 600                                                                                | 400                 | 600                   | 400                    | 600                   | 400                    | 600                   | 400                    | 500                   | 400                    | 300                   | 300                    | 140                   | 140                    | 80                    | 80                     |                       |                        |                       |     |  |  |
|                                                                                     |                 |                                   |                          |            |         |                       | ■                                  |               | 24 V                                | SVC24A-SR-TPC | 600                                                                                | 400                 | 600                   | 400                    | 600                   | 400                    | 600                   | 400                    | 600                   | 400                    | 550                   | 400                    | 280                   | 280                    | 160                   | 160                    |                       |                        |                       |     |  |  |
|                                                                                     |                 |                                   |                          |            |         | ■                     | ■                                  | 24 V          | SVC24A-MP-TPC                       | 600           | 400                                                                                | 600                 | 400                   | 600                    | 400                   | 600                    | 400                   | 550                    | 400                   | 280                    | 280                   | 160                    | 160                   |                        |                       |                        |                       |                        |                       |     |  |  |
|  | 2000 N          | 150 s                             | 35 s                     |            |         |                       | ■                                  |               | 24 V                                | AVK24A-3-TPC  |                                                                                    |                     |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        | 150                   | 150 |  |  |
|                                                                                     |                 |                                   |                          |            | ■       |                       | ■                                  | 230 V         | AVK230A-3                           |               |                                                                                    |                     |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        | 150                   | 150 |  |  |
|                                                                                     |                 |                                   |                          |            |         |                       |                                    | 24 V          | AVK24A-SR-TPC                       |               |                                                                                    |                     |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        | 150                   | 150 |  |  |
|                                                                                     |                 |                                   |                          |            | ■       | ■                     | 24 V                               | AVK24A-MP-TPC |                                     |               |                                                                                    |                     |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        |                       |                        | 150                   | 150                    |                       |     |  |  |

<sup>1)</sup> Running times, control signal, stroke limitation, and other functions configurable on MP types with Belimo Assistant 2.

<sup>2)</sup> The fail-safe position NC/NO of all fail-safe actuators can be adjusted on the actuator. Delivery condition: actuator stem retracted.

DN 15...150

|                                |                                                                                                                                                                         |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Field of use                   | Closed water systems (pH >7)                                                                                                                                            |
| Fluid temperature              | –10...120°C                                                                                                                                                             |
| Pipe connection                | Flange PN 16 (ISO 7005-2)                                                                                                                                               |
| Leakage rate                   | 2-way: max. 0.05% of the K <sub>VS</sub> value<br>3-way: control path A–AB: max. 0.05% of the K <sub>VS</sub> value / bypass B–AB: max. 1% of the K <sub>VS</sub> value |
| Flow characteristic            | 2-way: equal percentage<br>3-way: control path A–AB: equal percentage / bypass B–AB: linear                                                                             |
| Permissible operating pressure | p <sub>S</sub> : 1600 kPa                                                                                                                                               |



| PN 16                     |                          |                           |                          |                           |                          |                           |                          |                           |                          | PN 16                     |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                        |                          |
|---------------------------|--------------------------|---------------------------|--------------------------|---------------------------|--------------------------|---------------------------|--------------------------|---------------------------|--------------------------|---------------------------|--------------------------|---------------------------|--------------------------|---------------------------|--------------------------|---------------------------|--------------------------|---------------------------|--------------------------|---------------------------|--------------------------|---------------------------|--------------------------|------------------------|--------------------------|
| DN 15                     |                          | DN 20                     |                          | DN 25                     |                          | DN 32                     |                          | DN 40                     |                          | DN 50                     |                          | DN 65                     |                          |                           |                          | DN 80                     |                          |                           |                          | DN 100                    |                          | DN 125                    |                          | DN 150                 |                          |
| K <sub>VS</sub><br>[m³/h] | Valve<br>type            |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                        |                          |
| 0.63                      | H611N                    |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                        |                          |
| 1                         | H612N                    |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                        |                          |
| 1.6                       | H613N                    | K <sub>VS</sub><br>[m³/h] | Valve<br>type            | K <sub>VS</sub><br>[m³/h] | Valve<br>type            | K <sub>VS</sub><br>[m³/h] | Valve<br>type            | K <sub>VS</sub><br>[m³/h] | Valve<br>type            | K <sub>VS</sub><br>[m³/h] | Valve<br>type            | K <sub>VS</sub><br>[m³/h] | Valve<br>type            | K <sub>VS</sub><br>[m³/h] | Valve<br>type            | K <sub>VS</sub><br>[m³/h] | Valve<br>type            | K <sub>VS</sub><br>[m³/h] | Valve<br>type            | K <sub>VS</sub><br>[m³/h] | Valve<br>type            | K <sub>VS</sub><br>[m³/h] | Valve<br>type            |                        |                          |
| 2.5                       | H614N                    | 6.3                       | H620N                    | 10                        | H625N                    | 16                        | H632N                    | 25                        | H640N                    | 40                        | H650N                    | 58                        | H664N                    | 63                        | H665N                    | 90                        | H679N                    | 100                       | H680N                    | 145                       | H6100N                   |                           |                          |                        |                          |
| 4                         | H615N                    |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                        |                          |
|                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                        |                          |
| K <sub>VS</sub><br>[m³/h] | Valve<br>type            |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                        |                          |
| 0.63                      | H711N                    |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                        |                          |
| 1                         | H712N                    |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                        |                          |
| 1.6                       | H713N                    | K <sub>VS</sub><br>[m³/h] | Valve<br>type            | K <sub>VS</sub><br>[m³/h] | Valve<br>type            | K <sub>VS</sub><br>[m³/h] | Valve<br>type            | K <sub>VS</sub><br>[m³/h] | Valve<br>type            | K <sub>VS</sub><br>[m³/h] | Valve<br>type            | K <sub>VS</sub><br>[m³/h] | Valve<br>type            | K <sub>VS</sub><br>[m³/h] | Valve<br>type            | K <sub>VS</sub><br>[m³/h] | Valve<br>type            | K <sub>VS</sub><br>[m³/h] | Valve<br>type            | K <sub>VS</sub><br>[m³/h] | Valve<br>type            | K <sub>VS</sub><br>[m³/h] | Valve<br>type            |                        |                          |
| 2.5                       | H714N                    | 6.3                       | H720N                    | 10                        | H725N                    | 16                        | H732N                    | 25                        | H740N                    | 40                        | H750N                    | 58                        | H764N                    | 63                        | H765N                    | 90                        | H779N                    | 100                       | H780N                    | 145                       | H7100N                   | 220                       | H7125N                   | 320                    | H7150N                   |
| 4                         | H715N                    |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                           |                          |                        |                          |
| Δp <sub>s</sub><br>kPa    | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa    | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa    | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa    | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa    | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa    | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa    | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa    | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa    | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa    | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa    | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa    | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa | Δp <sub>max</sub><br>kPa |



DN 40...150

|                     |                                                                                |
|---------------------|--------------------------------------------------------------------------------|
| Field of use        | Closed water and steam systems in the subcritical range (pH >7)                |
| Fluid temperature   | 5...150°C (120°C to p <sub>s</sub> 1600 kPa, 150°C to p <sub>s</sub> 1400 kPa) |
| Pipe connection     | Flange PN 16 (ISO 7005-2)                                                      |
| Leakage rate        | Max. 0.05% of the K <sub>vs</sub> value                                        |
| Flow characteristic | Equal percentage                                                               |

| Suitable actuators                                                                                      |                                                                                    | Actuating force        |       | Actuating time per nominal stroke       |  | Actuating time fail-safe |               | Open/close |                | 3-point        |               | Modulating (2...10 V) |      | Communication MP-Bus <sup>1)</sup> |      | Fail-safe |      | Nominal voltage<br>AC/DC 24 V<br>AC 230 V |      | Actuator type |     | <br>2-way |                        | PN 16                     |                        | PN 16                     |                        |                           |                        |                           |                        |                           |                        |                           |            |                           |            |
|---------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------|-------|-----------------------------------------|--|--------------------------|---------------|------------|----------------|----------------|---------------|-----------------------|------|------------------------------------|------|-----------|------|-------------------------------------------|------|---------------|-----|----------------------------------------------------------------------------------------------|------------------------|---------------------------|------------------------|---------------------------|------------------------|---------------------------|------------------------|---------------------------|------------------------|---------------------------|------------------------|---------------------------|------------|---------------------------|------------|
|                                                                                                         |                                                                                    |                        |       |                                         |  |                          |               |            |                |                |               |                       |      |                                    |      |           |      |                                           |      |               |     |                                                                                              |                        | DN 40                     |                        | DN 50                     |                        | DN 65                     |                        | DN 80                     |                        | DN 100                    |                        | DN 125                    |            | DN 150                    |            |
|                                                                                                         |                                                                                    |                        |       |                                         |  |                          |               |            |                |                |               |                       |      |                                    |      |           |      |                                           |      |               |     |                                                                                              |                        | K <sub>vs</sub><br>[m³/h] | Valve type             | K <sub>vs</sub><br>[m³/h] | Valve type             | K <sub>vs</sub><br>[m³/h] | Valve type             | K <sub>vs</sub><br>[m³/h] | Valve type             | K <sub>vs</sub><br>[m³/h] | Valve type             | K <sub>vs</sub><br>[m³/h] | Valve type | K <sub>vs</sub><br>[m³/h] | Valve type |
|                                                                                                         |                                                                                    |                        |       |                                         |  |                          |               |            |                |                |               |                       |      |                                    |      |           |      |                                           |      |               |     |                                                                                              | 25                     | H640SP                    | 40                     | H650SP                    | 58                     | H664SP                    | 90                     | H679SP                    | 145                    | H6100SP                   | 220                    | H6125SP                   | 320        | H6150SP                   |            |
|                                                                                                         |                                                                                    |                        |       |                                         |  |                          |               |            |                |                |               |                       |      |                                    |      |           |      |                                           |      |               |     |                                                                                              | Δp <sub>s</sub><br>kPa | Δp <sub>max</sub><br>kPa  | Δp <sub>s</sub><br>kPa | Δp <sub>max</sub><br>kPa  | Δp <sub>s</sub><br>kPa | Δp <sub>max</sub><br>kPa  | Δp <sub>s</sub><br>kPa | Δp <sub>max</sub><br>kPa  | Δp <sub>s</sub><br>kPa | Δp <sub>max</sub><br>kPa  | Δp <sub>s</sub><br>kPa | Δp <sub>max</sub><br>kPa  |            |                           |            |
| NV..<br>SV..<br><br>EV..<br>RV..<br><br>NVC..<br>SVC..<br><br>EVC..<br><br>NVK..<br>NVKC..<br><br>AVK.. |  | Standard actuators     |       |                                         |  |                          |               |            |                |                |               |                       |      |                                    |      |           |      |                                           |      |               |     |                                                                                              |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |            |                           |            |
|                                                                                                         |                                                                                    | 1000 N                 | 150 s |                                         |  |                          |               |            |                | 24 V           | NV24A-TPC     | 1600                  | 1000 | 1600                               | 1000 | 1600      | 1000 | 1600                                      | 1000 |               |     |                                                                                              |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |            |                           |            |
|                                                                                                         |                                                                                    |                        |       |                                         |  |                          |               |            |                | 230 V          | NV230A-TPC    | 1600                  | 1000 | 1600                               | 1000 | 1600      | 1000 | 1600                                      | 1000 |               |     |                                                                                              |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |            |                           |            |
|                                                                                                         |                                                                                    |                        |       |                                         |  |                          |               |            |                | 24 V           | NV24A-SR-TPC  | 1600                  | 1000 | 1600                               | 1000 | 1600      | 1000 | 1600                                      | 1000 |               |     |                                                                                              |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |            |                           |            |
|                                                                                                         |                                                                                    |                        |       |                                         |  |                          |               |            | 24 V           | NV24A-MP-TPC   | 1600          | 1000                  | 1600 | 1000                               | 1600 | 1000      | 1600 | 1000                                      |      |               |     |                                                                                              |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |            |                           |            |
|                                                                                                         | 1500 N                                                                             | 150 s                  |       |                                         |  |                          |               | 24 V       | SV24A-TPC      | 1600           | 1000          | 1600                  | 1000 | 1600                               | 1000 | 1600      | 1000 |                                           |      |               |     |                                                                                              |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |            |                           |            |
|                                                                                                         |                                                                                    |                        |       |                                         |  |                          |               |            | 230 V          | SV230A-TPC     | 1600          | 1000                  | 1600 | 1000                               | 1600 | 1000      | 1600 | 1000                                      |      |               |     |                                                                                              |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |            |                           |            |
|                                                                                                         |                                                                                    |                        |       |                                         |  |                          |               |            | 24 V           | SV24A-SR-TPC   | 1600          | 1000                  | 1600 | 1000                               | 1600 | 1000      | 1600 | 1000                                      |      |               |     |                                                                                              |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |            |                           |            |
|                                                                                                         |                                                                                    |                        |       |                                         |  |                          |               |            | 24 V           | SV24A-MP-TPC   | 1600          | 1000                  | 1600 | 1000                               | 1600 | 1000      | 1600 | 1000                                      |      |               |     |                                                                                              |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |            |                           |            |
|                                                                                                         | 2500 N                                                                             | 150 s                  |       |                                         |  |                          |               | 24 V       | EV24A-TPC      |                |               |                       |      |                                    |      |           |      |                                           | 600  | 600           | 600 | 600                                                                                          | 600                    | 600                       |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |            |                           |            |
|                                                                                                         |                                                                                    |                        |       |                                         |  |                          |               | 230 V      | EV230A-TPC     |                |               |                       |      |                                    |      |           |      |                                           | 600  | 600           | 600 | 600                                                                                          | 600                    | 600                       |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |            |                           |            |
|                                                                                                         |                                                                                    |                        |       |                                         |  |                          |               | 24 V       | EV24A-SR-TPC   |                |               |                       |      |                                    |      |           |      |                                           |      | 600           | 600 | 600                                                                                          | 600                    | 600                       | 600                    |                           |                        |                           |                        |                           |                        |                           |                        |                           |            |                           |            |
|                                                                                                         |                                                                                    |                        |       |                                         |  |                          |               | 24 V       | EV24A-MP-TPC   |                |               |                       |      |                                    |      |           |      |                                           |      |               | 600 | 600                                                                                          | 600                    | 600                       | 600                    | 600                       |                        |                           |                        |                           |                        |                           |                        |                           |            |                           |            |
| 4500 N                                                                                                  | 150 s                                                                              |                        |       |                                         |  |                          | 24 V          | RV24A-SR   |                |                |               |                       |      |                                    |      |           |      |                                           | 600  | 600           | 600 | 600                                                                                          | 600                    | 600                       |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |            |                           |            |
|                                                                                                         |                                                                                    | Fast running actuators |       |                                         |  |                          |               |            |                |                |               |                       |      |                                    |      |           |      |                                           |      |               |     |                                                                                              |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |            |                           |            |
|                                                                                                         |                                                                                    | 1000 N                 | 35 s  |                                         |  |                          |               |            | 24 V           | NVC24A-SR-TPC  | 1600          | 1000                  | 1600 | 1000                               | 1600 | 1000      | 1600 | 1000                                      |      |               |     |                                                                                              |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |            |                           |            |
|                                                                                                         |                                                                                    |                        |       |                                         |  |                          |               |            |                | 24 V           | NVC24A-MP-TPC | 1600                  | 1000 | 1600                               | 1000 | 1600      | 1000 | 1600                                      | 1000 |               |     |                                                                                              |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |            |                           |            |
| 1500 N                                                                                                  | 35 s                                                                               |                        |       |                                         |  |                          |               |            | 24 V           | SVC24A-SR-TPC  | 1600          | 1000                  | 1600 | 1000                               | 1600 | 1000      | 1600 | 1000                                      |      |               |     |                                                                                              |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |            |                           |            |
|                                                                                                         |                                                                                    |                        |       |                                         |  |                          |               |            |                | 24 V           | SVC24A-MP-TPC | 1600                  | 1000 | 1600                               | 1000 | 1600      | 1000 | 1600                                      | 1000 |               |     |                                                                                              |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |            |                           |            |
|                                                                                                         |                                                                                    | 2500 N                 | 35 s  |                                         |  |                          |               |            | 24 V           | EVC24A-SR      |               |                       |      |                                    |      |           |      |                                           |      | 600           | 600 | 600                                                                                          | 600                    | 600                       | 600                    |                           |                        |                           |                        |                           |                        |                           |                        |                           |            |                           |            |
|                                                                                                         |                                                                                    |                        |       | Fail-safe actuators NC/NO <sup>2)</sup> |  |                          |               |            |                |                |               |                       |      |                                    |      |           |      |                                           |      |               |     |                                                                                              |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |            |                           |            |
| 1000 N                                                                                                  | 150 s                                                                              |                        |       | 35 s                                    |  |                          |               |            |                | 24 V           | NVK24A-3-TPC  | 1600                  | 1000 | 1600                               | 1000 | 1600      | 1000 | 1600                                      | 1000 |               |     |                                                                                              |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |            |                           |            |
|                                                                                                         |                                                                                    |                        |       |                                         |  |                          |               |            |                |                | 230 V         | NVK230A-3             | 1600 | 1000                               | 1600 | 1000      | 1600 | 1000                                      | 1600 | 1000          |     |                                                                                              |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |            |                           |            |
|                                                                                                         |                                                                                    |                        |       |                                         |  |                          |               |            | 24 V           | NVK24A-SR-TPC  | 1600          | 1000                  | 1600 | 1000                               | 1600 | 1000      | 1600 | 1000                                      |      |               |     |                                                                                              |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |            |                           |            |
|                                                                                                         |                                                                                    |                        |       |                                         |  |                          |               |            | 24 V           | NVK24A-MP-TPC  | 1600          | 1000                  | 1600 | 1000                               | 1600 | 1000      | 1600 | 1000                                      |      |               |     |                                                                                              |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |            |                           |            |
| 2000 N                                                                                                  | 150 s                                                                              | 35 s                   |       |                                         |  |                          |               | 24 V       | NVKC24A-SR-TPC | 1600           | 1000          | 1600                  | 1000 | 1600                               | 1000 | 1600      | 1000 |                                           |      |               |     |                                                                                              |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |            |                           |            |
|                                                                                                         |                                                                                    |                        |       |                                         |  |                          |               |            | 24 V           | NVKC24A-MP-TPC | 1600          | 1000                  | 1600 | 1000                               | 1600 | 1000      | 1600 | 1000                                      |      |               |     |                                                                                              |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |            |                           |            |
|                                                                                                         |                                                                                    |                        |       |                                         |  |                          |               |            | 24 V           | AVK24A-3-TPC   |               |                       |      |                                    |      |           |      |                                           |      | 600           | 600 |                                                                                              |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |            |                           |            |
|                                                                                                         |                                                                                    |                        |       |                                         |  |                          |               |            | 230 V          | AVK230A-3      |               |                       |      |                                    |      |           |      |                                           |      |               | 600 | 600                                                                                          |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |            |                           |            |
|                                                                                                         |                                                                                    |                        |       |                                         |  | 24 V                     | AVK24A-SR-TPC |            |                |                |               |                       |      |                                    |      |           |      |                                           | 600  | 600           |     |                                                                                              |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |            |                           |            |
|                                                                                                         |                                                                                    |                        |       |                                         |  | 24 V                     | AVK24A-MP-TPC |            |                |                |               |                       |      |                                    |      |           |      |                                           |      | 600           | 600 |                                                                                              |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |                        |                           |            |                           |            |







DN 15...100

Field of use Closed water systems (pH >7)

Fluid temperature 5...200°C (120°C to p<sub>s</sub> 2500 kPa, 200°C to p<sub>s</sub> 2300 kPa)

Pipe connection Flange PN 25 (ISO 7005-2)

Leakage rate Control path A–AB: max. 0.05% of the K<sub>vs</sub> value / bypass B–AB: max. 1% of the K<sub>vs</sub> value

Flow characteristic Control path A–AB: linear / bypass B–AB: linear

| Suitable actuators                                                                                          | Actuating force | Actuating time per nominal stroke | Actuating time fail-safe                                                                                    | Open/close                                                                                | 3-point | Modulating (2...10 V) | Communication MP-Bus <sup>1)</sup> | Fail-safe | Nominal voltage<br>AC/DC 24 V<br>AC 230 V | Actuator type              |  | PN 25                  |                             | PN 40                  |                          | PN 65                  |                          | PN 80                  |                          | PN 100                 |                          | PN 150                 |                          | PN 200                 |                          | PN 250                 |                          | PN 300 |     |     |     |     |
|-------------------------------------------------------------------------------------------------------------|-----------------|-----------------------------------|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|---------|-----------------------|------------------------------------|-----------|-------------------------------------------|----------------------------|------------------------------------------------------------------------------------|------------------------|-----------------------------|------------------------|--------------------------|------------------------|--------------------------|------------------------|--------------------------|------------------------|--------------------------|------------------------|--------------------------|------------------------|--------------------------|------------------------|--------------------------|--------|-----|-----|-----|-----|
|                                                                                                             |                 |                                   |                                                                                                             |                                                                                           |         |                       |                                    |           |                                           |                            |                                                                                    | Δp <sub>s</sub><br>kPa | Δp <sub>max</sub><br>kPa    | Δp <sub>s</sub><br>kPa | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa | Δp <sub>max</sub><br>kPa |        |     |     |     |     |
| Standard actuators                                                                                          |                 |                                   |                                                                                                             |                                                                                           |         |                       |                                    |           |                                           |                            |                                                                                    |                        |                             |                        |                          |                        |                          |                        |                          |                        |                          |                        |                          |                        |                          |                        |                          |        |     |     |     |     |
|  LV..<br>NV..<br>SV..     | 500 N           | 150 s                             |                                                                                                             | ■                                                                                         | ■       |                       |                                    |           | 24 V                                      | LV24A-TPC <sup>2)</sup>    | 800                                                                                | 800                    | 600                         | 600                    | 450                      | 450                    | 300                      | 300                    | 140                      | 140                    | 60                       | 60                     |                          |                        |                          |                        |                          |        |     |     |     |     |
|                                                                                                             |                 |                                   |                                                                                                             | ■                                                                                         | ■       |                       |                                    |           | 230 V                                     | LV230A-TPC <sup>2)</sup>   | 800                                                                                | 800                    | 600                         | 600                    | 450                      | 450                    | 300                      | 300                    | 140                      | 140                    | 60                       | 60                     |                          |                        |                          |                        |                          |        |     |     |     |     |
|                                                                                                             |                 |                                   |                                                                                                             |                                                                                           |         | ■                     |                                    |           | 24 V                                      | LV24A-SR-TPC <sup>2)</sup> | 800                                                                                | 800                    | 600                         | 600                    | 450                      | 450                    | 300                      | 300                    | 140                      | 140                    | 60                       | 60                     |                          |                        |                          |                        |                          |        |     |     |     |     |
|                                                                                                             |                 |                                   |                                                                                                             |                                                                                           |         |                       | ■                                  | ■         |                                           | 24 V                       | LV24A-MP-TPC <sup>2)</sup>                                                         | 800                    | 800                         | 600                    | 600                      | 450                    | 450                      | 300                    | 300                      | 140                    | 140                      | 60                     | 60                       |                        |                          |                        |                          |        |     |     |     |     |
|  NV..<br>SV..            | 1000 N          | 150 s                             |                                                                                                             | ■                                                                                         | ■       |                       |                                    |           | 24 V                                      | NV24A-TPC                  | 2200                                                                               | 1000                   | 1000                        | 1000                   | 1300                     | 1000                   | 900                      | 900                    | 500                      | 500                    | 300                      | 300                    |                          |                        |                          |                        |                          |        |     |     |     |     |
|                                                                                                             |                 |                                   |                                                                                                             | ■                                                                                         | ■       |                       |                                    |           | 230 V                                     | NV230A-TPC                 | 2200                                                                               | 1000                   | 1000                        | 1000                   | 1300                     | 1000                   | 900                      | 900                    | 500                      | 500                    | 300                      | 300                    |                          |                        |                          |                        |                          |        |     |     |     |     |
|                                                                                                             |                 |                                   |                                                                                                             |                                                                                           |         | ■                     |                                    |           | 24 V                                      | NV24A-SR-TPC               | 2200                                                                               | 1000                   | 1000                        | 1000                   | 1300                     | 1000                   | 900                      | 900                    | 500                      | 500                    | 300                      | 300                    |                          |                        |                          |                        |                          |        |     |     |     |     |
|                                                                                                             |                 |                                   |                                                                                                             |                                                                                           |         |                       | ■                                  | ■         |                                           | 24 V                       | NV24A-MP-TPC                                                                       | 2200                   | 1000                        | 1000                   | 1000                     | 1300                   | 1000                     | 900                    | 900                      | 500                    | 500                      | 300                    | 300                      |                        |                          |                        |                          |        |     |     |     |     |
|  EV..<br>RV..            | 1500 N          | 150 s                             |                                                                                                             | ■                                                                                         | ■       |                       |                                    |           | 24 V                                      | SV24A-TPC                  | 2500                                                                               | 1000                   | 2500                        | 1000                   | 2100                     | 1000                   | 1500                     | 1000                   | 850                      | 850                    | 500                      | 500                    |                          |                        |                          |                        |                          |        |     |     |     |     |
|                                                                                                             |                 |                                   |                                                                                                             | ■                                                                                         | ■       |                       |                                    |           | 230 V                                     | SV230A-TPC                 | 2500                                                                               | 1000                   | 2500                        | 1000                   | 2100                     | 1000                   | 1500                     | 1000                   | 850                      | 850                    | 500                      | 500                    |                          |                        |                          |                        |                          |        |     |     |     |     |
|                                                                                                             |                 |                                   |                                                                                                             |                                                                                           |         | ■                     |                                    |           | 24 V                                      | SV24A-SR-TPC               | 2500                                                                               | 1000                   | 2500                        | 1000                   | 2100                     | 1000                   | 1500                     | 1000                   | 850                      | 850                    | 500                      | 500                    |                          |                        |                          |                        |                          |        |     |     |     |     |
|                                                                                                             |                 |                                   |                                                                                                             |                                                                                           |         |                       | ■                                  | ■         |                                           | 24 V                       | SV24A-MP-TPC                                                                       | 2500                   | 1000                        | 2500                   | 1000                     | 2100                   | 1000                     | 1500                   | 1000                     | 850                    | 850                      | 500                    | 500                      |                        |                          |                        |                          |        |     |     |     |     |
|  LVC..<br>NVC..<br>SVC.. | 2500 N          | 150 s                             |                                                                                                             | ■                                                                                         | ■       |                       |                                    |           | 24 V                                      | EV24A-TPC                  |                                                                                    |                        |                             |                        |                          |                        |                          |                        |                          |                        |                          | 550                    | 550                      | 350                    | 350                      | 200                    | 200                      |        |     |     |     |     |
|                                                                                                             |                 |                                   |                                                                                                             | ■                                                                                         | ■       |                       |                                    |           | 230 V                                     | EV230A-TPC                 |                                                                                    |                        |                             |                        |                          |                        |                          |                        |                          |                        |                          |                        | 550                      | 550                    | 350                      | 350                    | 200                      | 200    |     |     |     |     |
|                                                                                                             |                 |                                   |                                                                                                             |                                                                                           |         | ■                     |                                    |           | 24 V                                      | EV24A-SR-TPC               |                                                                                    |                        |                             |                        |                          |                        |                          |                        |                          |                        |                          |                        | 550                      | 550                    | 350                      | 350                    | 200                      | 200    |     |     |     |     |
|                                                                                                             |                 |                                   |                                                                                                             |                                                                                           |         |                       | ■                                  | ■         |                                           | 24 V                       | EV24A-MP-TPC                                                                       |                        |                             |                        |                          |                        |                          |                        |                          |                        |                          |                        | 550                      | 550                    | 350                      | 350                    | 200                      | 200    |     |     |     |     |
|  EVC..                   | 4500 N          | 150 s                             |                                                                                                             |                                                                                           |         | ■                     |                                    |           | 24 V                                      | RV24A-SR                   |                                                                                    |                        |                             |                        |                          |                        |                          |                        |                          |                        |                          |                        | 1100                     | 1000                   | 700                      | 700                    | 450                      | 450    |     |     |     |     |
|                                                                                                             |                 |                                   | Fast running actuators                                                                                      |                                                                                           |         |                       |                                    |           |                                           |                            |                                                                                    |                        |                             |                        |                          |                        |                          |                        |                          |                        |                          |                        |                          |                        |                          |                        |                          |        |     |     |     |     |
|                                                                                                             |                 |                                   |  LVC..<br>NVC..<br>SVC.. | 500 N                                                                                     | 35 s    |                       |                                    |           | ■                                         |                            |                                                                                    | 24 V                   | LVC24A-SR-TPC <sup>2)</sup> | 800                    | 800                      | 600                    | 600                      | 450                    | 450                      | 300                    | 300                      | 140                    | 140                      | 60                     | 60                       |                        |                          |        |     |     |     |     |
|                                                                                                             |                 |                                   |                                                                                                             |                                                                                           |         |                       |                                    |           | ■                                         | ■                          |                                                                                    | 24 V                   | LVC24A-MP-TPC <sup>2)</sup> | 800                    | 800                      | 600                    | 600                      | 450                    | 450                      | 300                    | 300                      | 140                    | 140                      | 60                     | 60                       |                        |                          |        |     |     |     |     |
|  NVC..<br>SVC..          | 1000 N          | 35 s                              |                                                                                                             |                                                                                           |         |                       |                                    |           | ■                                         |                            |                                                                                    | 24 V                   | NVC24A-SR-TPC               | 2200                   | 1000                     | 1500                   | 1000                     | 1300                   | 1000                     | 900                    | 900                      | 500                    | 500                      | 300                    | 300                      |                        |                          |        |     |     |     |     |
|                                                                                                             |                 |                                   |                                                                                                             |                                                                                           |         |                       |                                    |           | ■                                         | ■                          |                                                                                    | 24 V                   | NVC24A-MP-TPC               | 2200                   | 1000                     | 1500                   | 1000                     | 1300                   | 1000                     | 900                    | 900                      | 500                    | 500                      | 300                    | 300                      |                        |                          |        |     |     |     |     |
|                                                                                                             |                 |                                   |  SVC..                   | 1500 N                                                                                    | 35 s    |                       |                                    |           | ■                                         |                            |                                                                                    | 24 V                   | SVC24A-SR-TPC               | 2500                   | 1000                     | 2500                   | 1000                     | 2100                   | 1000                     | 1500                   | 1000                     | 850                    | 850                      | 500                    | 500                      |                        |                          |        |     |     |     |     |
|                                                                                                             |                 |                                   |                                                                                                             |                                                                                           |         |                       |                                    |           | ■                                         | ■                          |                                                                                    | 24 V                   | SVC24A-MP-TPC               | 2500                   | 1000                     | 2500                   | 1000                     | 2100                   | 1000                     | 1500                   | 1000                     | 850                    | 850                      | 500                    | 500                      |                        |                          |        |     |     |     |     |
|                                                                                                             |                 |                                   |                                                                                                             |                                                                                           |         |                       | ■                                  |           | 24 V                                      | EVC24A-SR                  |                                                                                    |                        |                             |                        |                          |                        |                          |                        |                          |                        |                          |                        | 550                      | 550                    | 350                      | 350                    | 200                      | 200    |     |     |     |     |
| Fail-safe actuators NC/NO <sup>3)</sup>                                                                     |                 |                                   |                                                                                                             |                                                                                           |         |                       |                                    |           |                                           |                            |                                                                                    |                        |                             |                        |                          |                        |                          |                        |                          |                        |                          |                        |                          |                        |                          |                        |                          |        |     |     |     |     |
|  NVK..<br>NVKC..         | 1000 N          | 150 s                             | 35 s                                                                                                        |                                                                                           | ■       |                       |                                    | ■         | 24 V                                      | NVK24A-3-TPC               | 2200                                                                               | 1000                   | 1500                        | 1000                   | 1300                     | 1000                   | 900                      | 900                    | 500                      | 500                    | 300                      | 300                    |                          |                        |                          |                        |                          |        |     |     |     |     |
|                                                                                                             |                 |                                   |                                                                                                             |                                                                                           | ■       |                       |                                    | ■         | 230 V                                     | NVK230A-3                  | 2200                                                                               | 1000                   | 1500                        | 1000                   | 1300                     | 1000                   | 900                      | 900                    | 500                      | 500                    | 300                      | 300                    |                          |                        |                          |                        |                          |        |     |     |     |     |
|                                                                                                             |                 |                                   |                                                                                                             |                                                                                           |         | ■                     |                                    | ■         | 24 V                                      | NVK24A-SR-TPC              | 2200                                                                               | 1000                   | 1500                        | 1000                   | 1300                     | 1000                   | 900                      | 900                    | 500                      | 500                    | 300                      | 300                    |                          |                        |                          |                        |                          |        |     |     |     |     |
|                                                                                                             |                 |                                   |                                                                                                             |                                                                                           |         |                       | ■                                  | ■         | 24 V                                      | NVK24A-MP-TPC              | 2200                                                                               | 1000                   | 1500                        | 1000                   | 1300                     | 1000                   | 900                      | 900                    | 500                      | 500                    | 300                      | 300                    |                          |                        |                          |                        |                          |        |     |     |     |     |
|  NVKC..<br>AVK..         |                 | 35 s                              | 35 s                                                                                                        |                                                                                           |         | ■                     |                                    | ■         | 24 V                                      | NVKC24A-SR-TPC             | 2200                                                                               | 1000                   | 1500                        | 1000                   | 1300                     | 1000                   | 900                      | 900                    | 500                      | 500                    | 300                      | 300                    |                          |                        |                          |                        |                          |        |     |     |     |     |
|                                                                                                             |                 |                                   |                                                                                                             |                                                                                           |         |                       | ■                                  | ■         | 24 V                                      | NVKC24A-MP-TPC             | 2200                                                                               | 1000                   | 1500                        | 1000                   | 1300                     | 1000                   | 900                      | 900                    | 500                      | 500                    | 300                      | 300                    |                          |                        |                          |                        |                          |        |     |     |     |     |
|                                                                                                             |                 |                                   |                                                                                                             |  AVK.. | 2000 N  | 150 s                 | 35 s                               |           | ■                                         |                            |                                                                                    | ■                      | 24 V                        | AVK24A-3-TPC           | 2200                     | 1000                   | 1500                     | 1000                   | 1300                     | 1000                   | 900                      | 900                    | 500                      | 500                    | 300                      | 300                    | 400                      | 400    | 250 | 250 | 150 | 150 |
|                                                                                                             |                 |                                   |                                                                                                             |                                                                                           |         |                       |                                    |           | ■                                         |                            |                                                                                    | ■                      | 230 V                       | AVK230A-3              | 2200                     | 1000                   | 1500                     | 1000                   | 1300                     | 1000                   | 900                      | 900                    | 500                      | 500                    | 300                      | 300                    | 400                      | 400    | 250 | 250 | 150 | 150 |
|                                                                                                             |                 |                                   | ■                                                                                                           |                                                                                           |         |                       |                                    |           | 24 V                                      | AVK24A-SR-TPC              | 2200                                                                               | 1000                   | 1500                        | 1000                   | 1300                     | 1000                   | 900                      | 900                    | 500                      | 500                    | 300                      | 300                    | 400                      | 400                    | 250                      | 250                    | 150                      | 150    |     |     |     |     |
|                                                                                                             |                 |                                   |                                                                                                             |                                                                                           |         |                       |                                    | ■         | ■                                         | 24 V                       | AVK24A-MP-TPC                                                                      | 2200                   | 1000                        | 1500                   | 1000                     | 1300                   | 1000                     | 900                    | 900                      | 500                    | 500                      | 300                    | 300                      | 400                    | 400                      | 250                    | 250                      | 150    | 150 |     |     |     |

<sup>1)</sup> Running times, control signal, stroke limitation, and other functions configurable on MP types with Belimo Assistant 2.

<sup>2)</sup> For DN 15 only recommended with H610S and H611S.

<sup>3)</sup> The fail-safe position NC/NO of all fail-safe actuators can be adjusted on the actuator. Delivery condition: actuator stem retracted.

DN 65...100

|                     |                                                                                           |
|---------------------|-------------------------------------------------------------------------------------------|
| Field of use        | Closed water and steam systems in the subcritical range (pH >7) Flange PN 65 (ISO 7005-2) |
| Fluid temperature   | 5...150°C (120°C to p <sub>s</sub> 2500 kPa, 150°C to p <sub>s</sub> 2430 kPa)            |
| Pipe connection     | Flange PN 25 (ISO 7005-2)                                                                 |
| Leakage rate        | Max. 0.05% of the K <sub>vs</sub> value                                                   |
| Flow characteristic | Equal percentage                                                                          |

|                                         |                                                                                     |        |                                     |                                     |                                     |                                     |                                     |                                     |               | PN 25                     |                          | PN 25                     |                          |                           |                          |      |
|-----------------------------------------|-------------------------------------------------------------------------------------|--------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|---------------|---------------------------|--------------------------|---------------------------|--------------------------|---------------------------|--------------------------|------|
|                                         |                                                                                     |        |                                     |                                     |                                     |                                     |                                     |                                     |               | DN 65                     |                          | DN 80                     |                          | DN 100                    |                          |      |
|                                         |                                                                                     |        |                                     |                                     |                                     |                                     |                                     |                                     |               | 2-way                     |                          | 2-way                     |                          | 2-way                     |                          |      |
|                                         |                                                                                     |        |                                     |                                     |                                     |                                     |                                     |                                     |               | K <sub>vs</sub><br>[m³/h] | Valve type               | K <sub>vs</sub><br>[m³/h] | Valve type               | K <sub>vs</sub><br>[m³/h] | Valve type               |      |
|                                         |                                                                                     |        |                                     |                                     |                                     |                                     |                                     |                                     |               | 58                        | H6065X58-SP2             | 90                        | H6080X90-SP2             | 125                       | H6100X125-SP2            |      |
|                                         |                                                                                     |        |                                     |                                     |                                     |                                     |                                     |                                     |               | Δp <sub>s</sub><br>kPa    | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa    | Δp <sub>max</sub><br>kPa | Δp <sub>s</sub><br>kPa    | Δp <sub>max</sub><br>kPa |      |
| Suitable actuators                      |                                                                                     |        |                                     |                                     |                                     |                                     |                                     |                                     |               |                           |                          |                           |                          |                           |                          |      |
| Standard actuators                      |                                                                                     |        |                                     |                                     |                                     |                                     |                                     |                                     |               |                           |                          |                           |                          |                           |                          |      |
| NV..<br>SV..                            |  | 1000 N | 150 s                               | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | 24 V                                | NV24A-TPC     | 2100                      | 1000                     | 1600                      | 1000                     | 1000                      | 1000                     |      |
|                                         |                                                                                     |        |                                     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | 230 V                               | NV230A-TPC    | 2100                      | 1000                     | 1600                      | 1000                     | 1000                      | 1000                     |      |
|                                         |                                                                                     |        |                                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 24 V                                | NV24A-SR-TPC  | 2100                      | 1000                     | 1600                      | 1000                     | 1000                      | 1000                     |      |
|                                         |                                                                                     |        |                                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 24 V                                | NV24A-MP-TPC  | 2100                      | 1000                     | 1600                      | 1000                     | 1000                      | 1000                     |      |
|                                         | 1500 N                                                                              | 150 s  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | 24 V                                | SV24A-TPC                           | 2500          | 1000                      | 2400                     | 1000                      | 1700                     | 1000                      |                          |      |
|                                         |                                                                                     |        | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | 230 V                               | SV230A-TPC                          | 2500          | 1000                      | 2400                     | 1000                      | 1700                     | 1000                      |                          |      |
|                                         |                                                                                     |        | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 24 V                                | SV24A-SR-TPC                        | 2500          | 1000                      | 2400                     | 1000                      | 1700                     | 1000                      |                          |      |
|                                         |                                                                                     |        | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 24 V                                | SV24A-MP-TPC                        | 2500          | 1000                      | 2400                     | 1000                      | 1700                     | 1000                      |                          |      |
| Fast running actuators                  |                                                                                     |        |                                     |                                     |                                     |                                     |                                     |                                     |               |                           |                          |                           |                          |                           |                          |      |
| NVC..<br>SVC..                          |  | 1000 N | 35 s                                | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 24 V                                | NVC24A-SR-TPC | 2100                      | 1000                     | 1600                      | 1000                     | 1000                      | 1000                     |      |
|                                         |                                                                                     |        |                                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 24 V                                | NVC24A-MP-TPC | 2100                      | 1000                     | 1600                      | 1000                     | 1000                      | 1000                     |      |
|                                         |                                                                                     | 1500 N | 35 s                                | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 24 V                                | SVC24A-SR-TPC | 2500                      | 1000                     | 2400                      | 1000                     | 1700                      | 1000                     |      |
|                                         |                                                                                     |        |                                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 24 V                                | SVC24A-MP-TPC | 2500                      | 1000                     | 2400                      | 1000                     | 1700                      | 1000                     |      |
| Fail-safe actuators NC/NO <sup>2)</sup> |                                                                                     |        |                                     |                                     |                                     |                                     |                                     |                                     |               |                           |                          |                           |                          |                           |                          |      |
| NVK..<br>NVKC..                         |  | 1000 N | 150 s                               | 35 s                                | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | 24 V          | NVK24A-3-TPC              | 2100                     | 1000                      | 1600                     | 1000                      | 1000                     |      |
|                                         |                                                                                     |        |                                     |                                     | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | 230 V         | NVK230A-3                 | 2100                     | 1000                      | 1600                     | 1000                      | 1000                     | 1000 |
|                                         |                                                                                     |        |                                     |                                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 24 V          | NVK24A-SR-TPC             | 2100                     | 1000                      | 1600                     | 1000                      | 1000                     | 1000 |
|                                         |                                                                                     |        |                                     |                                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 24 V          | NVK24A-MP-TPC             | 2100                     | 1000                      | 1600                     | 1000                      | 1000                     | 1000 |
|                                         |                                                                                     |        |                                     |                                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 24 V          | NVKC24A-SR-TPC            | 2100                     | 1000                      | 1600                     | 1000                      | 1000                     | 1000 |
|                                         |                                                                                     |        |                                     |                                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 24 V          | NVKC24A-MP-TPC            | 2100                     | 1000                      | 1600                     | 1000                      | 1000                     | 1000 |



Control butterfly valves

Fit for reliable control applications

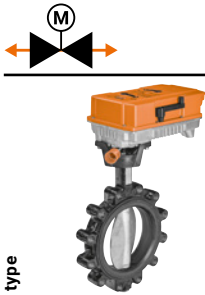
|            |       |            |              |    |
|------------|-------|------------|--------------|----|
| Wafer type | 2-way | PN 6/10/16 | DN 25...300  | 72 |
|            |       | PN 10/16   | DN 350       | 74 |
|            |       | PN 16      | DN 400...700 | 74 |
| Lug type   | 2-way | PN 10/16   | DN 25...150  | 72 |
|            |       | PN 16      | DN 200...300 | 72 |
|            |       | PN 16      | DN 350...700 | 74 |
|            | 3-way | PN 16      | DN 100...300 | 76 |

Please refer to the data sheets or notes for project planning for further technical data to be observed.



## DN 25...300

|                                |                                                                                                                                                               |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Field of use                   | Closed and open water systems (pH >7)                                                                                                                         |
| Fluid temperature              | -20...120°C                                                                                                                                                   |
| Pipe connection                | Flange (ISO 7005-2 and EN 1092-2)                                                                                                                             |
| Leakage rate                   | Tight, leakage rate A (EN 12266-1)                                                                                                                            |
| Flow characteristic            | DN 25...80: 0...60% opening angle: equal percentage<br>DN 100...300: characteristic curve configurable with<br>Belimo Assistant 2: equal percentage or linear |
| Permissible operating pressure | p <sub>s</sub> : 1600 kPa                                                                                                                                     |

| Suitable actuators                                                                        | Nominal torque          | Open/close                                                                          | 3-point         | Modulating                                                                          | Terminal connection | Fail-safe           | Nominal voltage<br>AC/DC 24 V<br>AC 230 V | Running time motor 90° | Auxiliary switch        | Degree of protection | Actuator type             | Linkage type        | PN 6/10/16              |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     | PN 6/10/16              |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|-------------------------------------------------------------------------------------------|-------------------------|-------------------------------------------------------------------------------------|-----------------|-------------------------------------------------------------------------------------|---------------------|---------------------|-------------------------------------------|------------------------|-------------------------|----------------------|---------------------------|---------------------|-------------------------|---------------------|-------------------------|---------------------|-------------------------|---------------------|-------------------------|---------------------|-------------------------|---------------------|-------------------------|---------------------|-------------------------|---------------------|-------------------------|-------|-------------------------|-------|-------------------------|-------|-------------------------|-------|-------------------------|-------|-------------------------|-------|-------------------------|-------|-------------------------|-------|-------------------------|-------|--------|--|--|--|--------|--|--|--|--------|--|--|--|--------|--|--|--|
|                                                                                           |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     | DN 25                   |                     |                         |                     | DN 32                   |                     |                         |                     | DN 40                   |                     |                         |                     | DN 50                   |                     |                         |       | DN 65                   |       |                         |       | DN 80                   |       |                         |       | DN 100                  |       |                         |       | DN 125                  |       |                         |       | DN 150 |  |  |  | DN 200 |  |  |  | DN 250 |  |  |  | DN 300 |  |  |  |
|                                                                                           |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     | $K_{vs}^{1)}$<br>[m³/h] | Valve               | $K_{vs}^{1)}$<br>[m³/h] | Valve               | $K_{vs}^{1)}$<br>[m³/h] | Valve               | $K_{vs}^{1)}$<br>[m³/h] | Valve               | $K_{vs}^{1)}$<br>[m³/h] | Valve               | $K_{vs}^{1)}$<br>[m³/h] | Valve               | $K_{vs}^{1)}$<br>[m³/h] | Valve               | $K_{vs}^{1)}$<br>[m³/h] | Valve | $K_{vs}^{1)}$<br>[m³/h] | Valve | $K_{vs}^{1)}$<br>[m³/h] | Valve | $K_{vs}^{1)}$<br>[m³/h] | Valve | $K_{vs}^{1)}$<br>[m³/h] | Valve | $K_{vs}^{1)}$<br>[m³/h] | Valve | $K_{vs}^{1)}$<br>[m³/h] | Valve | $K_{vs}^{1)}$<br>[m³/h] | Valve | $K_{vs}^{1)}$<br>[m³/h] | Valve |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|         | Wafer type              | 24                                                                                  | D625N           | 25                                                                                  | D632N               | 27                  | D640N                                     | 30                     | D650N                   | 50                   | D665N                     | 75                  | D680N                   | 220                 | D6100W                  | 310                 | D6125W                  | 550                 | D6150W                  | 820                 | D6200W                  | 1300                | D6250W                  | 1740                | D6300W                  |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         |  | Lug type        | 24                                                                                  | D625NL              | 25                  | D632NL                                    | 27                     | D640NL                  | 30                   | D650NL                    | 50                  | D665NL                  | 75                  | D680NL                  | 220                 | D6100WL                 | 310                 | D6125WL                 | 550                 | D6150WL                 | 820                 | D6200WL                 | 1300                | D6250WL                 | 1740                | D6300WL                 |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         |                                                                                     |                 |  | Linkage type        |                     |                                           |                        |                         | ZJR03 2)             |                           | ZJR03 2)            |                         | ZJR03 / ZPR03 2)    |                         | ZJR01 / ZPR03       |                         | ZJR01 / ZPR01       |                         | ZJR01 / ZPR01       |                         | ZPR01               |                         | ZPR01               |                         | ZPR01               |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
| $\Delta p_s$<br>kPa                                                                       | $\Delta p_{max}$<br>kPa |                                                                                     |                 |                                                                                     |                     | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa                   | $\Delta p_s$<br>kPa    | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa  | $\Delta p_{max}$<br>kPa   | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
| Modulating actuators                                                                      |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
| SR..   | 20 Nm                   | —                                                                                   | —               | ■                                                                                   | —                   | —                   | 24 V<br>230 V                             | 90 s                   |                         | IP54                 | SR24A-SR-5<br>SR230A-SR-5 | 1200<br>1200        | 300<br>300              | 1200<br>1200        | 300<br>300              | 1200<br>1200        | 300<br>300              |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
| Communicative actuators                                                                   |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
| GR..   | 40 Nm                   | ■ <sup>3)</sup>                                                                     | ■ <sup>3)</sup> | ■ <sup>3)</sup>                                                                     | ■                   | —                   | 24 V                                      | 35 s <sup>4)</sup>     |                         | IP54                 | GRC24SR.16 <sup>7)</sup>  | 1200                | 300                     | 1200                | 300                     | 1200                | 300                     | 1200                | 300                     |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
| JR..   | 90 Nm                   | ■ <sup>3)</sup>                                                                     | ■ <sup>3)</sup> | ■ <sup>3)</sup>                                                                     | ■                   | —                   | AC 24...240 V<br>DC 24...125 V            | 35 s <sup>5)</sup>     | 2                       | IP66/<br>IP67        | JRCA-BAC-S2-T             |                     |                         |                     | 1200                    | 300                 | 1200                    | 300                 | 1200                    | 300                 | 1400                    | 300                 | 1400                    | 300                 | 1400                    | 300                 |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
| PR..   | 160 Nm                  | ■ <sup>3)</sup>                                                                     | ■ <sup>3)</sup> | ■ <sup>3)</sup>                                                                     | ■                   | —                   | AC 24...240 V<br>DC 24...125 V            | 35 s <sup>6)</sup>     | 2                       |                      | PRCA-BAC-S2-T             |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     | 1400                    | 300   |                         | 1400  | 300                     |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         | PRCA-BAC-S2-T-200                                                                   |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         | PRCA-BAC-S2-T-250                                                                   |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
| Communicative fail-safe actuators NC/NO                                                   |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
| PRK..  | 160 Nm                  | ■ <sup>3)</sup>                                                                     | ■ <sup>3)</sup> | ■ <sup>3)</sup>                                                                     | ■                   | ■                   | AC 24...240 V<br>DC 24...125 V            | 35 s <sup>6)</sup>     | 2                       | IP66/<br>IP67        | PRKCA-BAC-S2-T            |                     |                         |                     |                         |                     | 1200                    | 300                 | 1200                    | 300                 | 1200                    | 300                 | 1200                    | 300                 |                         |                     |                         |       |                         | 1400  | 300                     |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         | PRKCA-BAC-S2-T-200                                                                  |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         | PRKCA-BAC-S2-T-250                                                                  |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |
|                                                                                           |                         |                                                                                     |                 |                                                                                     |                     |                     |                                           |                        |                         |                      |                           |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |       |                         |       |                         | </    |                         |       |                         |       |                         |       |                         |       |                         |       |                         |       |        |  |  |  |        |  |  |  |        |  |  |  |        |  |  |  |

<sup>1)</sup> For control applications with an opening angle of 60°. The maximum flow speed of 4 m/s may not be exceeded in the control butterfly valve.

2) Linkage is required only in combination with a JR or PR actuator.

<sup>3)</sup> Configurable with Belimo Assistant 2.

<sup>4)</sup> 35...150 s configurable with Belimo Assistant 2.

<sup>5)</sup> 20...120 s configurable with Belimo Assistant 2.

<sup>6)</sup> 30...120 s configurable with Belimo Assistant 2.

<sup>7)</sup> The new GR... actuator types will also be displayed in the Belimo webshop over the course of the year.

## DN 350...700

|                                |                                         |
|--------------------------------|-----------------------------------------|
| Field of use                   | Closed and open water systems (pH >7)   |
| Fluid temperature              | -20...120°C                             |
| Pipe connection                | Flange (ISO 7005-2 and EN 1092-2)       |
| Leakage rate                   | Tight, leakage rate A (EN 12266-1)      |
| Flow characteristic            | 0...60% opening angle: equal percentage |
| Permissible operating pressure | p <sub>S</sub> : 1600 kPa               |

|                                                                                      |                |                                    |                     |                             |                        |                       |                      |                            |                                                                                    |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                         |  |  |         |  |  |  |
|--------------------------------------------------------------------------------------|----------------|------------------------------------|---------------------|-----------------------------|------------------------|-----------------------|----------------------|----------------------------|------------------------------------------------------------------------------------|---------------------|--------------------------|-----------------------|-------------------------|---------------------|--------------------------|-----------------------|-------------------------|---------------------|--------------------------|-----------------------|-------------------------|---------------------|--------------------------|---------------------|-------------------------|---------------------|--------------------------|---------------------|-------------------------|---------------------|--------------------------|---------------------|-------------------------|---------------------|-------------------------|--|--|---------|--|--|--|
| Suitable actuators                                                                   | Nominal torque | Modulating (2...10 V / 0.5...10 V) | Terminal connection | Nominal voltage<br>AC 230 V | Running time motor 90° | SPDT auxiliary switch | Degree of protection | Actuator type              |   | Wafer type          | PN 10/16                 |                       |                         |                     | PN 16                    |                       |                         |                     | PN 16                    |                       |                         |                     | PN 16                    |                     |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                         |  |  |         |  |  |  |
|                                                                                      |                |                                    |                     |                             |                        |                       |                      |                            |                                                                                    |                     | DN 350                   |                       |                         |                     | DN 400                   |                       |                         |                     | DN 450                   |                       |                         |                     | DN 500                   |                     |                         |                     | DN 600                   |                     |                         |                     | DN 700                   |                     |                         |                     |                         |  |  |         |  |  |  |
|                                                                                      |                |                                    |                     |                             |                        |                       |                      |                            |                                                                                    |                     | $K_{vs}^{(1)}$<br>[m³/h] | Valve                 |                         |                     | $K_{vs}^{(1)}$<br>[m³/h] | Valve                 |                         |                     | $K_{vs}^{(1)}$<br>[m³/h] | Valve                 |                         |                     | $K_{vs}^{(1)}$<br>[m³/h] | Valve               |                         |                     | $K_{vs}^{(1)}$<br>[m³/h] | Valve               |                         |                     | $K_{vs}^{(1)}$<br>[m³/h] | Valve               |                         |                     |                         |  |  |         |  |  |  |
|                                                                                      |                |                                    |                     |                             |                        |                       |                      |                            |                                                                                    |                     | 3010                     | D6350N                |                         |                     | 4140                     | D6400N                |                         |                     | 5490                     | D6450N                |                         |                     | 7060                     | D6500N              |                         |                     | 10900                    | D6600N              |                         |                     | 11760                    | D6700N              |                         |                     |                         |  |  |         |  |  |  |
|                                                                                      |                |                                    |                     |                             |                        |                       |                      |                            |                                                                                    |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                         |  |  |         |  |  |  |
|                                                                                      |                |                                    |                     |                             |                        |                       |                      |                            |                                                                                    |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                         |  |  |         |  |  |  |
|                                                                                      |                |                                    |                     |                             |                        |                       |                      |                            |                                                                                    |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                         |  |  |         |  |  |  |
|                                                                                      |                |                                    |                     |                             |                        |                       |                      |                            |                                                                                    |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                         |  |  |         |  |  |  |
|                                                                                      |                |                                    |                     |                             |                        |                       |                      |                            |                                                                                    |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                         |  |  |         |  |  |  |
|                                                                                      |                |                                    |                     |                             |                        |                       |                      |                            |                                                                                    |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                         |  |  |         |  |  |  |
|    | Nominal torque | Modulating (2...10 V / 0.5...10 V) | Terminal connection | Nominal voltage<br>AC 230 V | Running time motor 90° | SPDT auxiliary switch | Degree of protection | Actuator type              |  | Lug type            | PN 16                    |                       |                         |                     | PN 16                    |                       |                         |                     | PN 16                    |                       |                         |                     | PN 16                    |                     |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                         |  |  |         |  |  |  |
|                                                                                      |                |                                    |                     |                             |                        |                       |                      |                            |                                                                                    |                     | DN 350                   |                       |                         |                     | DN 400                   |                       |                         |                     | DN 450                   |                       |                         |                     | DN 500                   |                     |                         |                     | DN 600                   |                     |                         |                     | DN 700                   |                     |                         |                     |                         |  |  |         |  |  |  |
|                                                                                      |                |                                    |                     |                             |                        |                       |                      |                            |                                                                                    |                     | $K_{vs}$<br>[m³/h]       | Valve                 |                         |                     | $K_{vs}$<br>[m³/h]       | Valve                 |                         |                     | $K_{vs}$<br>[m³/h]       | Valve                 |                         |                     | $K_{vs}$<br>[m³/h]       | Valve               |                         |                     | $K_{vs}$<br>[m³/h]       | Valve               |                         |                     | $K_{vs}$<br>[m³/h]       | Valve               |                         |                     |                         |  |  |         |  |  |  |
|                                                                                      |                |                                    |                     |                             |                        |                       |                      |                            |                                                                                    |                     | 3010                     | D6350NL <sup>2)</sup> |                         |                     | 4140                     | D6400NL <sup>2)</sup> |                         |                     | 5490                     | D6450NL <sup>2)</sup> |                         |                     | 7060                     | D6500NL             |                         |                     | 10900                    | D6600NL             |                         |                     | 11760                    | D6700NL             |                         |                     |                         |  |  |         |  |  |  |
|                                                                                      |                |                                    |                     |                             |                        |                       |                      |                            |                                                                                    |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                         |  |  |         |  |  |  |
|                                                                                      |                |                                    |                     |                             |                        |                       |                      |                            |                                                                                    |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                         |  |  |         |  |  |  |
|                                                                                      |                |                                    |                     |                             |                        |                       |                      |                            |                                                                                    |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                         |  |  |         |  |  |  |
|                                                                                      |                |                                    |                     |                             |                        |                       |                      |                            |                                                                                    |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                         |  |  |         |  |  |  |
|                                                                                      |                |                                    |                     |                             |                        |                       |                      |                            |                                                                                    |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                         |  |  |         |  |  |  |
|                                                                                      |                |                                    |                     |                             |                        |                       |                      |                            |                                                                                    |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                         |  |  |         |  |  |  |
|  | Nominal torque | Modulating (2...10 V / 0.5...10 V) | Terminal connection | Nominal voltage<br>AC 230 V | Running time motor 90° | SPDT auxiliary switch | Degree of protection | Actuator type              | Linkage type                                                                       | ZSY-703             |                          |                       |                         | ZSY-401             |                          |                       |                         | ZSY-701             |                          |                       |                         | ZSY-702             |                          |                     |                         | ZSY-702             |                          |                     |                         | ZSY-901             |                          |                     |                         | ZSY-902             |                         |  |  | ZSY-903 |  |  |  |
|                                                                                      |                |                                    |                     |                             |                        |                       |                      |                            |                                                                                    | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa  | $\Delta p_s$<br>kPa   | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa  | $\Delta p_s$<br>kPa   | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa  | $\Delta p_s$<br>kPa   | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa  | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa  | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa  | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa |  |  |         |  |  |  |
|                                                                                      |                |                                    |                     |                             |                        |                       |                      |                            |                                                                                    |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                         |  |  |         |  |  |  |
|                                                                                      |                |                                    |                     |                             |                        |                       |                      |                            |                                                                                    |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                         |  |  |         |  |  |  |
|                                                                                      |                |                                    |                     |                             |                        |                       |                      |                            |                                                                                    |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                         |  |  |         |  |  |  |
|                                                                                      |                |                                    |                     |                             |                        |                       |                      |                            |                                                                                    |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                         |  |  |         |  |  |  |
|                                                                                      |                |                                    |                     |                             |                        |                       |                      |                            |                                                                                    |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                         |  |  |         |  |  |  |
|                                                                                      |                |                                    |                     |                             |                        |                       |                      |                            |                                                                                    |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                         |  |  |         |  |  |  |
|                                                                                      |                |                                    |                     |                             |                        |                       |                      |                            |                                                                                    |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                         |  |  |         |  |  |  |
|                                                                                      |                |                                    |                     |                             |                        |                       |                      |                            |                                                                                    |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                         |  |  |         |  |  |  |
|   | SY..           | Modulating actuators               |                     | 230 V                       | 31 s                   | 2                     | IP67                 | SY6-230-MF-T <sup>3)</sup> | 600                                                                                | 300                 | 1200                     | 300                   | 600                     | 300                 | 1200                     | 300                   | 600                     | 300                 | 600                      | 300                   | 1200                    | 300                 | 600                      | 300                 | 1200                    | 300                 | 600                      | 300                 | 1000                    | 300                 | 200                      | 200                 |                         |                     |                         |  |  |         |  |  |  |
|                                                                                      |                | 650 Nm                             | ■                   |                             |                        |                       |                      |                            |                                                                                    |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                          |                     | ■                       |                     |                         |  |  |         |  |  |  |
|                                                                                      |                | 1000 Nm                            | ■                   |                             |                        |                       |                      |                            |                                                                                    |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                          |                     | ■                       |                     |                         |  |  |         |  |  |  |
|                                                                                      |                | 1500 Nm                            | ■                   |                             |                        |                       |                      |                            |                                                                                    |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                          |                     | ■                       |                     |                         |  |  |         |  |  |  |
|                                                                                      |                | 2000 Nm                            | ■                   |                             |                        |                       |                      |                            |                                                                                    |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                          |                     | ■                       |                     |                         |  |  |         |  |  |  |
|                                                                                      |                | 2500 Nm                            | ■                   |                             |                        |                       |                      |                            |                                                                                    |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                          |                     | ■                       |                     |                         |  |  |         |  |  |  |
|                                                                                      |                | 3500 Nm                            | ■                   |                             |                        |                       |                      |                            |                                                                                    |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                       |                         |                     |                          |                     |                         |                     |                          |                     |                         |                     |                          |                     | ■                       |                     |                         |  |  |         |  |  |  |

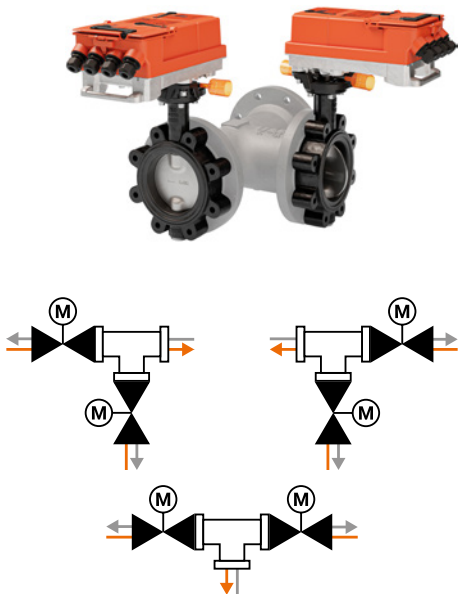
<sup>1)</sup> For control applications with an opening angle of 60%. The maximum flow speed of 4 m/s may not be exceeded in the control butterfly valve.

<sup>2)</sup> The control butterfly valve types D6350...450NL will be replaced by the new types D6350...450WL over the course of the year.

<sup>3)</sup> The actuator types SY6.. and SY7.. will be replaced by the new types QR.. and YR.. over the course of the year.

DN 100...300

|                                |                                                                                                                                                                                                                  |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Field of use                   | Closed and open water systems (pH >7) for mixing and distribution applications                                                                                                                                   |
| Fluid temperature              | -20...120°C                                                                                                                                                                                                      |
| Pipe connection                | Flange (ISO 7005-2, EN 1092-2)                                                                                                                                                                                   |
| Leakage rate                   | Tight, leakage rate A (EN 12266-1)                                                                                                                                                                               |
| Flow characteristic            | Characteristic curve configurable with Belimo Assistant 2:<br>control path A-AB: equal percentage and<br>bypass B-AB: equal percentage inverted or control path<br>A-AB: linear and bypass B-AB: linear inverted |
| Permissible operating pressure | p <sub>S</sub> : 1600 kPa                                                                                                                                                                                        |



| <div><div>↓</div></div>                                                            |    |                                      |                          |                                                  |                                          |                                        |                                    |                                |                                      |                       |                      |                                                          |                     |                       | <div>Suitable T-pieces</div> <div></div> <div>Spheroidal graphite cast iron with fastening screws</div> |  |
|------------------------------------------------------------------------------------|----|--------------------------------------|--------------------------|--------------------------------------------------|------------------------------------------|----------------------------------------|------------------------------------|--------------------------------|--------------------------------------|-----------------------|----------------------|----------------------------------------------------------|---------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| PN                                                                                 | DN | K <sub>vs</sub> [m³/h] <sup>1)</sup> | Open/close <sup>2)</sup> | Modulating (2...10 V / 0.5...10 V) <sup>2)</sup> | Communication BACnet MS/TP <sup>2)</sup> | Communication Modbus RTU <sup>2)</sup> | Communication MP-Bus <sup>2)</sup> | Nominal voltage                | Running time motor 90° <sup>2)</sup> | SPDT auxiliary switch | Degree of protection | Control butterfly valve type with actuator <sup>3)</sup> | Δp <sub>s</sub> kPa | Δp <sub>max</sub> kPa | T-piece type <sup>4)</sup>                                                                                                                                                                 |  |
| With communicative actuators                                                       |    |                                      |                          |                                                  |                                          |                                        |                                    |                                |                                      |                       |                      |                                                          |                     |                       |                                                                                                                                                                                            |  |
|  | 16 | 100                                  | 160                      | ■                                                | ■                                        | ■                                      | ■                                  | AC 24...240 V<br>DC 24...125 V | 35 s                                 | 2                     | IP66/<br>IP67        | D7100WL/BAC                                              | 1400                | 300                   | ZD7100                                                                                                                                                                                     |  |
|                                                                                    |    | 125                                  | 280                      | ■                                                | ■                                        | ■                                      | ■                                  |                                | 35 s                                 | 2                     | IP66/<br>IP67        | D7125WL/BAC                                              | 1400                | 300                   | ZD7125                                                                                                                                                                                     |  |
|                                                                                    |    | 150                                  | 380                      | ■                                                | ■                                        | ■                                      | ■                                  |                                | 35 s                                 | 2                     | IP66/<br>IP67        | D7150WL/BAC                                              | 1400                | 300                   | ZD7150                                                                                                                                                                                     |  |
|                                                                                    |    | 200                                  | 800                      | ■                                                | ■                                        | ■                                      | ■                                  |                                | 35 s                                 | 4                     | IP66/<br>IP67        | D7200WL/BAC                                              | 1400                | 300                   | ZD7200                                                                                                                                                                                     |  |
|                                                                                    |    | 250                                  | 1200                     | ■                                                | ■                                        | ■                                      | ■                                  |                                | 35 s                                 | 4                     | IP66/<br>IP67        | D7250WL/BAC                                              | 1400                | 300                   | ZD7250                                                                                                                                                                                     |  |
|                                                                                    |    | 300                                  | 1700                     | ■                                                | ■                                        | ■                                      | ■                                  |                                | 35 s                                 | 4                     | IP66/<br>IP67        | D7300WL/BAC                                              | 1400                | 300                   | ZD7300                                                                                                                                                                                     |  |

<sup>1)</sup> For control applications with an opening angle of 60% (configurable with Belimo Assistant 2).  
The maximum flow speed of 4 m/s may not be exceeded in the control butterfly valve.

<sup>2)</sup> Configurable with Belimo Assistant 2.

<sup>3)</sup> The T-piece is not included in the scope of delivery.

<sup>4)</sup> The necessary fastening screws and nuts are included in the scope of delivery.

Ball valves

Open/close and changeover applications

|                 |                        |       |        |          |            |    |
|-----------------|------------------------|-------|--------|----------|------------|----|
| Internal thread | Open/close ball valves | 2-way |        | PN 25/40 | DN 15...50 | 80 |
|                 | Changeover ball valves | 3-way | T-bore | PN 25/40 | DN 15...50 | 82 |
| External thread | Open/close ball valves | 2-way |        | PN 25/40 | DN 15...50 | 84 |
|                 | Changeover ball valves | 3-way | T-bore |          |            |    |
| Flange          | Open/close ball valves | 2-way |        | PN 6     | DN 15...50 | 86 |
|                 | Changeover ball valves | 3-way | T-bore |          |            |    |

Please refer to the data sheets or notes for project planning for further technical data to be observed.

DN 15...50

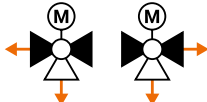
|                                |                                                                                                                                                        |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Field of use                   | 2-way: closed and open water systems (pH >7)<br>3-way: closed water systems (pH >7)                                                                    |
| Fluid temperature              | -10...120°C <sup>1)</sup>                                                                                                                              |
| Pipe connection                | Internal thread Rp (ISO 7-1)                                                                                                                           |
| Leakage rate                   | 2-way: air-bubble tight, leakage rate A (EN 12266-1)<br>3-way: path A-AB: air-bubble tight, leakage rate A (EN 12266-1) / bypass B-AB: leakage class I |
| Flow                           | 3-way: bypass B-AB: approx. 50% of the K <sub>VS</sub> value                                                                                           |
| Permissible operating pressure | p <sub>S</sub> : 1600 kPa                                                                                                                              |

| Pipe connection                                                                     |  | Internal thread Rp (ISO 7-1)                      |  | Leakage rate                                      |  | 2-way: air-bubble tight, leakage rate A (EN 12266-1)<br>3-way: path A–AB: air-bubble tight, leakage rate A (EN 12266-1) / bypass B–AB: leakage class I |  | Flow                   |  | 3-way: bypass B–AB: approx. 50% of the K <sub>VS</sub> value |  | Permissible operating pressure |  | p <sub>S</sub> : 1600 kPa           |  | PN 40                     |  | PN 25                               |  |      |  |          |  |      |  |      |  |      |  |
|-------------------------------------------------------------------------------------|--|---------------------------------------------------|--|---------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------|--|--------------------------------------------------------------|--|--------------------------------|--|-------------------------------------|--|---------------------------|--|-------------------------------------|--|------|--|----------|--|------|--|------|--|------|--|
|                                                                                     |  |                                                   |  |                                                   |  |                                                                                                                                                        |  |                        |  |                                                              |  |                                |  |                                     |  |                           |  |                                     |  |      |  |          |  |      |  |      |  |      |  |
| DN 15                                                                               |  | DN 20                                             |  | DN 25                                             |  | DN 32                                                                                                                                                  |  | DN 40                  |  | DN 50                                                        |  |                                |  |                                     |  |                           |  |                                     |  |      |  |          |  |      |  |      |  |      |  |
| K <sub>VS</sub> [m³/h]                                                              |  | Valve type                                        |  | K <sub>VS</sub> [m³/h]                            |  | Valve type                                                                                                                                             |  | K <sub>VS</sub> [m³/h] |  | Valve type                                                   |  | K <sub>VS</sub> [m³/h]         |  | Valve type                          |  | K <sub>VS</sub> [m³/h]    |  | Valve type                          |  |      |  |          |  |      |  |      |  |      |  |
| 15                                                                                  |  | R2015-S1                                          |  | 32                                                |  | R2020-S2                                                                                                                                               |  | 26                     |  | R2025-S2                                                     |  | 32                             |  | R2032-S3                            |  | 31                        |  | R2040-S3                            |  | 49   |  | R2050-S4 |  |      |  |      |  |      |  |
| K <sub>VS</sub> [m³/h]                                                              |  | Valve type                                        |  | K <sub>VS</sub> [m³/h]                            |  | Valve type                                                                                                                                             |  | K <sub>VS</sub> [m³/h] |  | Valve type                                                   |  | K <sub>VS</sub> [m³/h]         |  | Valve type                          |  | K <sub>VS</sub> [m³/h]    |  | Valve type                          |  |      |  |          |  |      |  |      |  |      |  |
| 15                                                                                  |  | R3015-S1                                          |  | 32                                                |  | R3020-S2                                                                                                                                               |  | 26                     |  | R3025-S2                                                     |  | 32                             |  | R3032-S3                            |  | 31                        |  | R3040-S3                            |  | 49   |  | R3050-S4 |  |      |  |      |  |      |  |
| Δp <sub>S</sub> kPa                                                                 |  | Δp <sub>max</sub> <sup>2)</sup> kPa               |  | Δp <sub>S</sub> kPa                               |  | Δp <sub>max</sub> <sup>2)</sup> kPa                                                                                                                    |  | Δp <sub>S</sub> kPa    |  | Δp <sub>max</sub> <sup>2)</sup> kPa                          |  | Δp <sub>S</sub> kPa            |  | Δp <sub>max</sub> <sup>2)</sup> kPa |  | Δp <sub>S</sub> kPa       |  | Δp <sub>max</sub> <sup>2)</sup> kPa |  |      |  |          |  |      |  |      |  |      |  |
| Compact actuators                                                                   |  |                                                   |  |                                                   |  |                                                                                                                                                        |  |                        |  |                                                              |  |                                |  |                                     |  |                           |  |                                     |  |      |  |          |  |      |  |      |  |      |  |
|  |  | 2 Nm                                              |  | <input type="checkbox"/> <input type="checkbox"/> |  | 24 V                                                                                                                                                   |  | 100 s                  |  | TRY24 <sup>3)</sup>                                          |  | 1400                           |  | 1000                                |  |                           |  |                                     |  |      |  |          |  |      |  |      |  |      |  |
|                                                                                     |  |                                                   |  |                                                   |  |                                                                                                                                                        |  |                        |  |                                                              |  |                                |  |                                     |  |                           |  |                                     |  |      |  |          |  |      |  |      |  |      |  |
|                                                                                     |  |                                                   |  |                                                   |  |                                                                                                                                                        |  |                        |  |                                                              |  |                                |  |                                     |  |                           |  |                                     |  |      |  |          |  |      |  |      |  |      |  |
| Standard actuators                                                                  |  |                                                   |  |                                                   |  |                                                                                                                                                        |  |                        |  |                                                              |  |                                |  |                                     |  |                           |  |                                     |  |      |  |          |  |      |  |      |  |      |  |
|  |  | 5 Nm                                              |  | <input type="checkbox"/> <input type="checkbox"/> |  | 24 V                                                                                                                                                   |  | 90 s                   |  | LR24A                                                        |  | ...S                           |  | 1400                                |  | 1000                      |  | 1400                                |  | 1000 |  | 1400     |  | 1000 |  |      |  |      |  |
|                                                                                     |  |                                                   |  |                                                   |  |                                                                                                                                                        |  |                        |  |                                                              |  |                                |  |                                     |  |                           |  |                                     |  |      |  |          |  |      |  |      |  |      |  |
|                                                                                     |  | 230 V                                             |  | 90 s                                              |  | LR230A                                                                                                                                                 |  | ...S                   |  | 1400                                                         |  | 1000                           |  | 1400                                |  | 1000                      |  | 1400                                |  | 1000 |  |          |  |      |  |      |  |      |  |
|                                                                                     |  |                                                   |  |                                                   |  |                                                                                                                                                        |  |                        |  |                                                              |  |                                |  |                                     |  |                           |  |                                     |  |      |  |          |  |      |  |      |  |      |  |
|                                                                                     |  | 24 V                                              |  | 90 s                                              |  | NR24A                                                                                                                                                  |  | ...S                   |  | 1400                                                         |  | 1000                           |  | 1400                                |  | 1000                      |  | 1400                                |  | 1000 |  |          |  |      |  |      |  |      |  |
|                                                                                     |  |                                                   |  |                                                   |  |                                                                                                                                                        |  |                        |  |                                                              |  |                                |  |                                     |  |                           |  |                                     |  |      |  |          |  |      |  |      |  |      |  |
| 230 V                                                                               |  | 90 s                                              |  | NR230A                                            |  | ...S                                                                                                                                                   |  | 1400                   |  | 1000                                                         |  | 1400                           |  | 1000                                |  | 1400                      |  | 1000                                |  |      |  |          |  |      |  |      |  |      |  |
|                                                                                     |  |                                                   |  |                                                   |  |                                                                                                                                                        |  |                        |  |                                                              |  |                                |  |                                     |  |                           |  |                                     |  |      |  |          |  |      |  |      |  |      |  |
| 24 V                                                                                |  | 90 s                                              |  | SR24A                                             |  | ...S                                                                                                                                                   |  | 1400                   |  | 1000                                                         |  | 1400                           |  | 1000                                |  | 1400                      |  | 1000                                |  |      |  |          |  |      |  |      |  |      |  |
|                                                                                     |  |                                                   |  |                                                   |  |                                                                                                                                                        |  |                        |  |                                                              |  |                                |  |                                     |  |                           |  |                                     |  |      |  |          |  |      |  |      |  |      |  |
| 230 V                                                                               |  | 90 s                                              |  | SR230A                                            |  | ...S                                                                                                                                                   |  | 1400                   |  | 1000                                                         |  | 1400                           |  | 1000                                |  | 1400                      |  | 1000                                |  |      |  |          |  |      |  |      |  |      |  |
|                                                                                     |  |                                                   |  |                                                   |  |                                                                                                                                                        |  |                        |  |                                                              |  |                                |  |                                     |  |                           |  |                                     |  |      |  |          |  |      |  |      |  |      |  |
| Very fast running actuators                                                         |  |                                                   |  |                                                   |  |                                                                                                                                                        |  |                        |  |                                                              |  |                                |  |                                     |  |                           |  |                                     |  |      |  |          |  |      |  |      |  |      |  |
|  |  | 4 Nm                                              |  | <input type="checkbox"/> <input type="checkbox"/> |  | 24 V                                                                                                                                                   |  | 9 s                    |  | LRQ24A                                                       |  | 1400                           |  | 1000                                |  | 1400                      |  | 1000                                |  | 1400 |  | 1000     |  | 1400 |  | 1000 |  |      |  |
|                                                                                     |  |                                                   |  |                                                   |  |                                                                                                                                                        |  |                        |  |                                                              |  |                                |  |                                     |  |                           |  |                                     |  |      |  |          |  |      |  |      |  |      |  |
|                                                                                     |  |                                                   |  |                                                   |  |                                                                                                                                                        |  |                        |  |                                                              |  |                                |  |                                     |  |                           |  |                                     |  |      |  |          |  |      |  |      |  |      |  |
| 8 Nm                                                                                |  | <input type="checkbox"/> <input type="checkbox"/> |  | 24 V                                              |  | 9 s                                                                                                                                                    |  | NRQ24A                 |  | 1400                                                         |  | 1000                           |  | 1400                                |  | 1000                      |  | 1400                                |  | 1000 |  | 1400     |  | 1000 |  |      |  |      |  |
|                                                                                     |  |                                                   |  |                                                   |  |                                                                                                                                                        |  |                        |  |                                                              |  |                                |  |                                     |  |                           |  |                                     |  |      |  |          |  |      |  |      |  |      |  |
| 16 Nm                                                                               |  | <input type="checkbox"/> <input type="checkbox"/> |  | 24 V                                              |  | 9 s                                                                                                                                                    |  | SRQ24A                 |  | 1400                                                         |  | 1000                           |  | 1400                                |  | 1000                      |  | 1400                                |  | 1000 |  | 1400     |  | 1000 |  |      |  |      |  |
|                                                                                     |  |                                                   |  |                                                   |  |                                                                                                                                                        |  |                        |  |                                                              |  |                                |  |                                     |  |                           |  |                                     |  |      |  |          |  |      |  |      |  |      |  |
| Fail-safe actuators NC/NO                                                           |  |                                                   |  |                                                   |  |                                                                                                                                                        |  |                        |  |                                                              |  |                                |  |                                     |  |                           |  |                                     |  |      |  |          |  |      |  |      |  |      |  |
|  |  | 2.5 Nm                                            |  | <input type="checkbox"/> <input type="checkbox"/> |  | 24 V                                                                                                                                                   |  | 75 s                   |  | TRF24 <sup>3)</sup>                                          |  | ...S                           |  | ...O                                |  | ...S-O                    |  | 1400                                |  | 1000 |  |          |  |      |  |      |  |      |  |
|                                                                                     |  |                                                   |  |                                                   |  |                                                                                                                                                        |  |                        |  |                                                              |  |                                |  |                                     |  |                           |  |                                     |  |      |  |          |  |      |  |      |  |      |  |
|                                                                                     |  | 230 V                                             |  | 75 s                                              |  | TRF230 <sup>3)</sup>                                                                                                                                   |  | ...S                   |  | ...O                                                         |  | ...S-O                         |  | 1400                                |  | 1000                      |  |                                     |  |      |  |          |  |      |  |      |  |      |  |
|                                                                                     |  |                                                   |  |                                                   |  |                                                                                                                                                        |  |                        |  |                                                              |  |                                |  |                                     |  |                           |  |                                     |  |      |  |          |  |      |  |      |  |      |  |
|                                                                                     |  | 24 V                                              |  | 75 s                                              |  | LRF24 <sup>3)</sup>                                                                                                                                    |  | ...S                   |  | ...O                                                         |  | ...S-O                         |  | 1400                                |  | 1000                      |  | 1400                                |  | 1000 |  |          |  |      |  |      |  |      |  |
|                                                                                     |  |                                                   |  |                                                   |  |                                                                                                                                                        |  |                        |  |                                                              |  |                                |  |                                     |  |                           |  |                                     |  |      |  |          |  |      |  |      |  |      |  |
| 230 V                                                                               |  | 75 s                                              |  | LRF230 <sup>3)</sup>                              |  | ...S                                                                                                                                                   |  | ...O                   |  | ...S-O                                                       |  | 1400                           |  | 1000                                |  | 1400                      |  | 1000                                |  |      |  |          |  |      |  |      |  |      |  |
|                                                                                     |  |                                                   |  |                                                   |  |                                                                                                                                                        |  |                        |  |                                                              |  |                                |  |                                     |  |                           |  |                                     |  |      |  |          |  |      |  |      |  |      |  |
|  |  |                                                   |  | <input type="checkbox"/> <input type="checkbox"/> |  | 24 V                                                                                                                                                   |  | 75 s                   |  | Without auxiliary switch                                     |  | With 2 auxiliary switches      |  | Without auxiliary switch            |  | With 2 auxiliary switches |  | 1400                                |  | 1000 |  | 1400     |  | 1000 |  | 1400 |  | 1000 |  |
|                                                                                     |  |                                                   |  |                                                   |  |                                                                                                                                                        |  |                        |  |                                                              |  |                                |  |                                     |  |                           |  |                                     |  |      |  |          |  |      |  |      |  |      |  |
|                                                                                     |  | AC 24...240 V<br>DC 24...125 V                    |  | 75 s                                              |  | NRFA                                                                                                                                                   |  | ...S2                  |  | ...O                                                         |  | ...S2-O                        |  | 1400                                |  | 1000                      |  | 1400                                |  | 1000 |  | 1400     |  | 1000 |  |      |  |      |  |
|                                                                                     |  |                                                   |  |                                                   |  |                                                                                                                                                        |  |                        |  |                                                              |  |                                |  |                                     |  |                           |  |                                     |  |      |  |          |  |      |  |      |  |      |  |
|                                                                                     |  | 24 V                                              |  | 75 s                                              |  | SRF24A                                                                                                                                                 |  | ...S2                  |  | ...O                                                         |  | ...S2-O                        |  | 1400                                |  | 1000                      |  | 1400                                |  | 1000 |  | 1400     |  | 1000 |  |      |  |      |  |
|                                                                                     |  |                                                   |  |                                                   |  |                                                                                                                                                        |  |                        |  |                                                              |  |                                |  |                                     |  |                           |  |                                     |  |      |  |          |  |      |  |      |  |      |  |
| AC 24...240 V<br>DC 24...125 V                                                      |  | 75 s                                              |  | SRFA                                              |  | ...S2                                                                                                                                                  |  | ...O                   |  | ...S2-O                                                      |  | 1400                           |  | 1000                                |  | 1400                      |  | 1000                                |  | 1400 |  | 1000     |  |      |  |      |  |      |  |
|                                                                                     |  |                                                   |  |                                                   |  |                                                                                                                                                        |  |                        |  |                                                              |  |                                |  |                                     |  |                           |  |                                     |  |      |  |          |  |      |  |      |  |      |  |

<sup>1)</sup> Compact actuators TR../TRY.. only up to 100°C.  
<sup>2)</sup> Low-noise operation Δp<sub>max</sub> = 200 kPa.  
<sup>3)</sup> If fluid temperature ≥100°C, then pipeline and valve must be insulated.

DN 15...50

|                                |                                               |
|--------------------------------|-----------------------------------------------|
| Field of use                   | Closed and open water systems (pH >7)         |
| Fluid temperature              | −10...100°C                                   |
| Pipe connection                | Internal thread Rp (ISO 7-1)                  |
| Leakage rate                   | Air-bubble tight, leakage rate A (EN 12266-1) |
| Permissible operating pressure | p <sub>S</sub> : 1600 kPa                     |

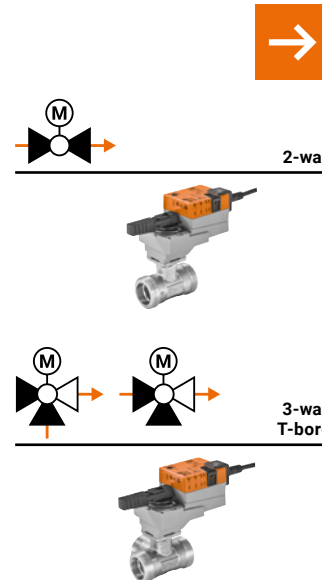
| Suitable actuators                                                                  |            |  |                          |  |                        | PN 40                  |                          | PN 25                     |                           | PN 15                     |                           | DN 32            |                           | DN 40            |                           | DN 50            |                           |                  |                           |                  |                           |                  |                           |  |
|-------------------------------------------------------------------------------------|------------|------------------------------------------------------------------------------------|--------------------------|-------------------------------------------------------------------------------------|------------------------|------------------------|--------------------------|---------------------------|---------------------------|---------------------------|---------------------------|------------------|---------------------------|------------------|---------------------------|------------------|---------------------------|------------------|---------------------------|------------------|---------------------------|------------------|---------------------------|--|
|                                                                                     |            |                                                                                    |                          |                                                                                     |                        | DN 15                  |                          | DN 20                     |                           | DN 25                     |                           | DN 32            |                           | DN 40            |                           | DN 50            |                           |                  |                           |                  |                           |                  |                           |  |
|                                                                                     |            |                                                                                    |                          |                                                                                     |                        | $K_{vs}$ [m³/h]        | Valve type               | $K_{vs}$ [m³/h]           | Valve type                | $K_{vs}$ [m³/h]           | Valve type                | $K_{vs}$ [m³/h]  | Valve type                | $K_{vs}$ [m³/h]  | Valve type                | $K_{vs}$ [m³/h]  | Valve type                | $K_{vs}$ [m³/h]  | Valve type                |                  |                           |                  |                           |  |
| Nominal torque                                                                      | Open/close | 3-point                                                                            | Fail-safe                | Nominal voltage AC/DC 24 V AC 230 V                                                 | Running time motor 90° | Running time fail-safe | Actuator type            | $\Delta p_s$ kPa          | $\Delta p_{max}^{1)}$ kPa | $\Delta p_s$ kPa          | $\Delta p_{max}^{1)}$ kPa | $\Delta p_s$ kPa | $\Delta p_{max}^{1)}$ kPa | $\Delta p_s$ kPa | $\Delta p_{max}^{1)}$ kPa | $\Delta p_s$ kPa | $\Delta p_{max}^{1)}$ kPa | $\Delta p_s$ kPa | $\Delta p_{max}^{1)}$ kPa | $\Delta p_s$ kPa | $\Delta p_{max}^{1)}$ kPa | $\Delta p_s$ kPa | $\Delta p_{max}^{1)}$ kPa |  |
| Compact actuators                                                                   |            |                                                                                    |                          |                                                                                     |                        |                        |                          |                           |                           |                           |                           |                  |                           |                  |                           |                  |                           |                  |                           |                  |                           |                  |                           |  |
|  | 2 Nm       | <input type="checkbox"/>                                                           | <input type="checkbox"/> | 24 V                                                                                | 100 s                  |                        | TR24                     | 500                       | 350                       |                           |                           |                  |                           |                  |                           |                  |                           |                  |                           |                  |                           |                  |                           |  |
|                                                                                     |            | <input type="checkbox"/>                                                           | <input type="checkbox"/> |                                                                                     | 35 s                   |                        | TRY24                    | 500                       | 350                       |                           |                           |                  |                           |                  |                           |                  |                           |                  |                           |                  |                           |                  |                           |  |
|                                                                                     |            | <input type="checkbox"/>                                                           | <input type="checkbox"/> | 230 V                                                                               | 35 s                   |                        | TRY230                   | 500                       | 350                       |                           |                           |                  |                           |                  |                           |                  |                           |                  |                           |                  |                           |                  |                           |  |
|                                                                                     |            |                                                                                    |                          |                                                                                     |                        |                        | Without auxiliary switch | With auxiliary switch     |                           |                           |                           |                  |                           |                  |                           |                  |                           |                  |                           |                  |                           |                  |                           |  |
| Standard actuators                                                                  |            |                                                                                    |                          |                                                                                     |                        |                        |                          |                           |                           |                           |                           |                  |                           |                  |                           |                  |                           |                  |                           |                  |                           |                  |                           |  |
|  | 5 Nm       | <input type="checkbox"/>                                                           | <input type="checkbox"/> | 24 V                                                                                | 90 s                   |                        | LR24A                    | 500                       | 350                       | 500                       | 350                       | 500              | 350                       |                  |                           |                  |                           |                  |                           |                  |                           |                  |                           |  |
|                                                                                     |            | <input type="checkbox"/>                                                           | <input type="checkbox"/> | 230 V                                                                               |                        |                        | LR230A                   | 500                       | 350                       | 500                       | 350                       | 500              | 350                       |                  |                           |                  |                           |                  |                           |                  |                           |                  |                           |  |
|                                                                                     | 10 Nm      | <input type="checkbox"/>                                                           | <input type="checkbox"/> | 24 V                                                                                | 90 s                   |                        | NR24A                    | 500                       | 350                       | 500                       | 350                       | 500              | 350                       | 500              | 350                       | 500              | 350                       |                  |                           | 500              | 350                       |                  |                           |  |
|                                                                                     |            | <input type="checkbox"/>                                                           | <input type="checkbox"/> | 230 V                                                                               |                        |                        | NR230A                   | 500                       | 350                       | 500                       | 350                       | 500              | 350                       | 500              | 350                       | 500              | 350                       |                  |                           | 500              | 350                       |                  |                           |  |
|                                                                                     | 20 Nm      | <input type="checkbox"/>                                                           | <input type="checkbox"/> | 24 V                                                                                | 90 s                   |                        | SR24A                    | 500                       | 350                       | 500                       | 350                       | 500              | 350                       | 500              | 350                       | 500              | 350                       | 500              | 350                       | 500              | 350                       | 500              | 350                       |  |
|                                                                                     |            | <input type="checkbox"/>                                                           | <input type="checkbox"/> | 230 V                                                                               |                        |                        | SR230A                   | 500                       | 350                       | 500                       | 350                       | 500              | 350                       | 500              | 350                       | 500              | 350                       | 500              | 350                       | 500              | 350                       | 500              | 350                       |  |
| Very fast running actuators                                                         |            |                                                                                    |                          |                                                                                     |                        |                        |                          |                           |                           |                           |                           |                  |                           |                  |                           |                  |                           |                  |                           |                  |                           |                  |                           |  |
|  | 4 Nm       | <input type="checkbox"/>                                                           |                          | 24 V                                                                                | 9 s                    |                        | LRQ24A                   | 500                       | 350                       | 500                       | 350                       | 500              | 350                       | 500              | 350                       |                  |                           |                  |                           |                  |                           |                  |                           |  |
|                                                                                     | 8 Nm       | <input type="checkbox"/>                                                           |                          | 24 V                                                                                | 9 s                    |                        | NRQ24A                   | 500                       | 350                       | 500                       | 350                       | 500              | 350                       | 500              | 350                       | 500              | 350                       |                  |                           |                  |                           |                  |                           |  |
|                                                                                     | 16 Nm      | <input type="checkbox"/>                                                           |                          | 24 V                                                                                | 9 s                    |                        | SRQ24A                   | 500                       | 350                       | 500                       | 350                       | 500              | 350                       | 500              | 350                       | 500              | 350                       |                  |                           | 500              | 350                       |                  |                           |  |
|                                                                                     |            |                                                                                    |                          |                                                                                     |                        |                        | Actuator type NC         | Actuator type NO          |                           |                           |                           |                  |                           |                  |                           |                  |                           |                  |                           |                  |                           |                  |                           |  |
|                                                                                     |            |                                                                                    |                          |                                                                                     |                        |                        | Without auxiliary switch | With 1 auxiliary switch   | Without auxiliary switch  | With 1 auxiliary switch   |                           |                  |                           |                  |                           |                  |                           |                  |                           |                  |                           |                  |                           |  |
| Fail-safe actuators NC/NO                                                           |            |                                                                                    |                          |                                                                                     |                        |                        |                          |                           |                           |                           |                           |                  |                           |                  |                           |                  |                           |                  |                           |                  |                           |                  |                           |  |
|  | 2.5 Nm     | <input type="checkbox"/>                                                           | <input type="checkbox"/> | 24 V                                                                                | 75 s                   | <75 s                  | TRF24                    | ...S                      | ...O                      | ...S-O                    | 500                       | 350              |                           |                  |                           |                  |                           |                  |                           |                  |                           |                  |                           |  |
|                                                                                     |            | <input type="checkbox"/>                                                           | <input type="checkbox"/> | 230 V                                                                               |                        |                        | TRF230                   | ...S                      | ...O                      | ...S-O                    | 500                       | 350              |                           |                  |                           |                  |                           |                  |                           |                  |                           |                  |                           |  |
|                                                                                     | 4 Nm       | <input type="checkbox"/>                                                           | <input type="checkbox"/> | 24 V                                                                                | 75 s                   | <20 s                  | LRF24                    | ...S                      | ...O                      | ...S-O                    | 500                       | 350              | 500                       | 350              | 500                       | 350              |                           |                  |                           |                  |                           |                  |                           |  |
|                                                                                     |            | <input type="checkbox"/>                                                           | <input type="checkbox"/> | 230 V                                                                               |                        |                        | LRF230                   | ...S                      | ...O                      | ...S-O                    | 500                       | 350              | 500                       | 350              | 500                       | 350              |                           |                  |                           |                  |                           |                  |                           |  |
|  |            | <input type="checkbox"/>                                                           | <input type="checkbox"/> | 24 V                                                                                | 75 s                   | <20 s                  | Without auxiliary switch | With 2 auxiliary switches | Without auxiliary switch  | With 2 auxiliary switches | 500                       | 350              | 500                       | 350              | 500                       | 350              | 500                       | 350              |                           |                  | 500                       | 350              |                           |  |
|                                                                                     |            | <input type="checkbox"/>                                                           | <input type="checkbox"/> | AC 24...240 V DC 24...125 V                                                         |                        |                        | NRF24A                   | ...S2                     | ...O                      | ...S2-O                   | 500                       | 350              | 500                       | 350              | 500                       | 350              | 500                       | 350              |                           |                  | 500                       | 350              |                           |  |
|                                                                                     | 10 Nm      | <input type="checkbox"/>                                                           | <input type="checkbox"/> | 24 V                                                                                | 75 s                   | <20 s                  | NRFA                     | ...S2                     | ...O                      | ...S2-O                   | 500                       | 350              | 500                       | 350              | 500                       | 350              | 500                       | 350              |                           |                  | 500                       | 350              |                           |  |
|                                                                                     |            | <input type="checkbox"/>                                                           | <input type="checkbox"/> | DC 24...125 V                                                                       |                        |                        | SRF24A                   | ...S2                     | ...O                      | ...S2-O                   | 500                       | 350              | 500                       | 350              | 500                       | 350              | 500                       | 350              | 500                       | 350              | 500                       | 350              |                           |  |
|  | 20 Nm      | <input type="checkbox"/>                                                           | <input type="checkbox"/> | 24 V                                                                                | 75 s                   | <20 s                  | SRFA                     | ...S2                     | ...O                      | ...S2-O                   | 500                       | 350              | 500                       | 350              | 500                       | 350              | 500                       | 350              | 500                       | 350              | 500                       | 350              |                           |  |
|                                                                                     |            | <input type="checkbox"/>                                                           | <input type="checkbox"/> | AC 24...240 V DC 24...125 V                                                         |                        |                        | SRFA                     | ...S2                     | ...O                      | ...S2-O                   | 500                       | 350              | 500                       | 350              | 500                       | 350              | 500                       | 350              | 500                       | 350              | 500                       | 350              |                           |  |

<sup>1)</sup> Low-noise operation Δp<sub>max</sub> = 200 kPa.



## DN 15...50

|                                |                                                                                                                                                        |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Field of use                   | Closed and open water systems (pH >7)                                                                                                                  |
| Fluid temperature              | -10...100°C                                                                                                                                            |
| Pipe connection                | External thread G (ISO 228-1)                                                                                                                          |
| Leakage rate                   | 2-way: air-bubble tight, leakage rate A (EN 12266-1)<br>3-way: path A-AB: air-bubble tight, leakage rate A (EN 12266-1) / bypass B-AB: leakage class I |
| Flow                           | 3-way: bypass B-AB: approx. 50% of the $K_{VS}$ value                                                                                                  |
| Permissible operating pressure | $p_S$ : 1600 kPa                                                                                                                                       |

[illegible]<sup>1)</sup> Low-noise operation  $\Delta p_{\max} = 200$  kPa.

DN 15...50

|                                |                                                                                                                                                        |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Field of use                   | 2-way: closed and open water systems (pH >7)<br>3-way: closed water systems (pH >7)                                                                    |
| Fluid temperature              | -10...100°C                                                                                                                                            |
| Pipe connection                | Flange PN 6 (EN 1092-1/4)                                                                                                                              |
| Leakage rate                   | 2-way: air-bubble tight, leakage rate A (EN 12266-1)<br>3-way: path A-AB: air-bubble tight, leakage rate A (EN 12266-1) / bypass B-AB: leakage class I |
| Flow                           | 3-way: bypass B-AB: approx. 50% of the K <sub>VS</sub> value                                                                                           |
| Permissible operating pressure | p <sub>S</sub> : 600 kPa                                                                                                                               |

| Suitable actuators                                                                                                        |                                                                                                                                     | Flow                                                                                                                                |                | 3-way: path A–AB: air-bubble tight, leakage rate A (EN 12266-1) / bypass B–AB: leakage class I |                                           | PN 6                                      |                                           | <div>→</div>           |                                                                                                                                                                                              | PN 6                                                                                                                                                                                         |                 |                           |                          |                           |                       |                          |                      |                           |                      |                  |                      |                  |                      |  |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---------------------------|--------------------------|---------------------------|-----------------------|--------------------------|----------------------|---------------------------|----------------------|------------------|----------------------|------------------|----------------------|--|--|--|--|
|                                                                                                                           |                                                                                                                                     |                                                                                                                                     |                |                                                                                                |                                           |                                           |                                           |                        |                                                                                                                                                                                              | DN 15                                                                                                                                                                                        |                 | DN 20                     |                          | DN 25                     |                       | DN 32                    |                      | DN 40                     |                      | DN 50            |                      |                  |                      |  |  |  |  |
|                                                                                                                           |                                                                                                                                     |                                                                                                                                     |                |                                                                                                |                                           |                                           |                                           |                        |                                                                                                                                                                                              | $K_{VS}$ [m³/h]                                                                                                                                                                              | Valve type      | $K_{VS}$ [m³/h]           | Valve type               | $K_{VS}$ [m³/h]           | Valve type            | $K_{VS}$ [m³/h]          | Valve type           | $K_{VS}$ [m³/h]           | Valve type           | $K_{VS}$ [m³/h]  | Valve type           |                  |                      |  |  |  |  |
| <div>TR..<br/>TRY..</div> <div></div>  | Nominal torque                                                                                                                      | Open/close                                                                                                                          | 3-point        | Fail-safe                                                                                      | Nominal voltage<br>AC/DC 24 V<br>AC 230 V | Running time motor 90°                    | Running time fail-safe                    | Actuator type          | <div></div> <div></div> | 2-way                                                                                                                                                                                        | $K_{VS}$ [m³/h] | Valve type                | $K_{VS}$ [m³/h]          | Valve type                | $K_{VS}$ [m³/h]       | Valve type               | $K_{VS}$ [m³/h]      | Valve type                | $K_{VS}$ [m³/h]      | Valve type       | $K_{VS}$ [m³/h]      | Valve type       |                      |  |  |  |  |
|                                                                                                                           |                                                                                                                                     |                                                                                                                                     |                |                                                                                                |                                           |                                           |                                           |                        |                                                                                                                                                                                              | 15                                                                                                                                                                                           | R6015R-B1       | 32                        | R6020R-B1                | 26                        | R6025R-B2             | 32                       | R6032R-B3            | 31                        | R6040R-B3            | 49               | R6050R-B3            |                  |                      |  |  |  |  |
|                                                                                                                           |                                                                                                                                     |                                                                                                                                     |                |                                                                                                |                                           |                                           |                                           |                        |                                                                                                                                                                                              |                                                                                                                                                                                              |                 |                           |                          |                           |                       |                          |                      |                           |                      |                  |                      |                  |                      |  |  |  |  |
|                                                                                                                           | <div>LR..<br/>NR..<br/>SR..</div> <div></div>    | Nominal torque                                                                                                                      | Open/close     | 3-point                                                                                        | Fail-safe                                 | Nominal voltage<br>AC/DC 24 V<br>AC 230 V | Running time motor 90°                    | Running time fail-safe | Actuator type                                                                                                                                                                                | <div></div> <div></div> | 3-way<br>T-bore | $K_{VS}$ [m³/h]           | Valve type               | $K_{VS}$ [m³/h]           | Valve type            | $K_{VS}$ [m³/h]          | Valve type           | $K_{VS}$ [m³/h]           | Valve type           | $K_{VS}$ [m³/h]  | Valve type           | $K_{VS}$ [m³/h]  | Valve type           |  |  |  |  |
|                                                                                                                           |                                                                                                                                     |                                                                                                                                     |                |                                                                                                |                                           |                                           |                                           |                        |                                                                                                                                                                                              |                                                                                                                                                                                              | 15              | R7015R-B1                 | 32                       | R7020R-B1                 | 26                    | R7025R-B2                | 32                   | R7032R-B3                 | 31                   | R7040R-B3        | 49                   | R7050R-B3        |                      |  |  |  |  |
|                                                                                                                           |                                                                                                                                     |                                                                                                                                     |                |                                                                                                |                                           |                                           |                                           |                        |                                                                                                                                                                                              |                                                                                                                                                                                              |                 |                           |                          |                           |                       |                          |                      |                           |                      |                  |                      |                  |                      |  |  |  |  |
|                                                                                                                           | <div>LRQ..<br/>NRQ..<br/>SRQ..</div> <div></div> | Nominal torque                                                                                                                      | Open/close     | 3-point                                                                                        | Fail-safe                                 | Nominal voltage<br>AC/DC 24 V<br>AC 230 V | Running time motor 90°                    | Running time fail-safe | Actuator type                                                                                                                                                                                |                                                                                                                                                                                              |                 | $\Delta p_s$ kPa          | $\Delta p_{max}$ kPa     | $\Delta p_s$ kPa          | $\Delta p_{max}$ kPa  | $\Delta p_s$ kPa         | $\Delta p_{max}$ kPa | $\Delta p_s$ kPa          | $\Delta p_{max}$ kPa | $\Delta p_s$ kPa | $\Delta p_{max}$ kPa | $\Delta p_s$ kPa | $\Delta p_{max}$ kPa |  |  |  |  |
|                                                                                                                           |                                                                                                                                     |                                                                                                                                     |                |                                                                                                |                                           |                                           |                                           |                        |                                                                                                                                                                                              |                                                                                                                                                                                              |                 | Compact actuators         |                          |                           |                       |                          |                      |                           |                      |                  |                      |                  |                      |  |  |  |  |
|                                                                                                                           |                                                                                                                                     |                                                                                                                                     |                |                                                                                                |                                           |                                           |                                           |                        |                                                                                                                                                                                              |                                                                                                                                                                                              |                 |                           |                          |                           |                       |                          |                      |                           |                      |                  |                      |                  |                      |  |  |  |  |
|                                                                                                                           |                                                                                                                                     | <div>TRF..<br/>LRF..<br/>SRF..</div> <div></div> | Nominal torque | Open/close                                                                                     | 3-point                                   | Fail-safe                                 | Nominal voltage<br>AC/DC 24 V<br>AC 230 V | Running time motor 90° | Running time fail-safe                                                                                                                                                                       | Actuator type                                                                                                                                                                                |                 |                           | Without auxiliary switch |                           | With auxiliary switch |                          |                      |                           |                      |                  |                      |                  |                      |  |  |  |  |
| Standard actuators                                                                                                        |                                                                                                                                     |                                                                                                                                     |                |                                                                                                |                                           |                                           |                                           |                        |                                                                                                                                                                                              |                                                                                                                                                                                              |                 |                           |                          |                           |                       |                          |                      |                           |                      |                  |                      |                  |                      |  |  |  |  |
|                                                                                                                           |                                                                                                                                     |                                                                                                                                     |                |                                                                                                |                                           |                                           |                                           |                        |                                                                                                                                                                                              |                                                                                                                                                                                              |                 |                           |                          |                           |                       |                          |                      |                           |                      |                  |                      |                  |                      |  |  |  |  |
| <div>NRF..<br/>SRF..</div> <div></div> |                                                                                                                                     | Nominal torque                                                                                                                      | Open/close     | 3-point                                                                                        | Fail-safe                                 | Nominal voltage<br>AC/DC 24 V<br>AC 230 V | Running time motor 90°                    | Running time fail-safe | Actuator type                                                                                                                                                                                |                                                                                                                                                                                              |                 | Without auxiliary switch  |                          | With 1 auxiliary switch   |                       | Without auxiliary switch |                      | With 1 auxiliary switch   |                      |                  |                      |                  |                      |  |  |  |  |
|                                                                                                                           |                                                                                                                                     |                                                                                                                                     |                |                                                                                                |                                           |                                           |                                           |                        |                                                                                                                                                                                              |                                                                                                                                                                                              |                 | Fail-safe actuators NC/NO |                          |                           |                       |                          |                      |                           |                      |                  |                      |                  |                      |  |  |  |  |
|                                                                                                                           |                                                                                                                                     |                                                                                                                                     |                |                                                                                                |                                           |                                           |                                           |                        |                                                                                                                                                                                              |                                                                                                                                                                                              |                 |                           |                          |                           |                       |                          |                      |                           |                      |                  |                      |                  |                      |  |  |  |  |
| <div>NRF..<br/>SRF..</div> <div></div> |                                                                                                                                     | Nominal torque                                                                                                                      | Open/close     | 3-point                                                                                        | Fail-safe                                 | Nominal voltage<br>AC/DC 24 V<br>AC 230 V | Running time motor 90°                    | Running time fail-safe | Actuator type                                                                                                                                                                                |                                                                                                                                                                                              |                 | Without auxiliary switch  |                          | With 2 auxiliary switches |                       | Without auxiliary switch |                      | With 2 auxiliary switches |                      |                  |                      |                  |                      |  |  |  |  |
|                                                                                                                           |                                                                                                                                     |                                                                                                                                     |                |                                                                                                |                                           |                                           |                                           |                        |                                                                                                                                                                                              |                                                                                                                                                                                              |                 |                           |                          |                           |                       |                          |                      |                           |                      |                  |                      |                  |                      |  |  |  |  |
|                                                                                                                           |                                                                                                                                     |                                                                                                                                     |                |                                                                                                |                                           |                                           |                                           |                        |                                                                                                                                                                                              |                                                                                                                                                                                              |                 |                           |                          |                           |                       |                          |                      |                           |                      |                  |                      |                  |                      |  |  |  |  |



10

Potable water valves

Open/close ball valves certified in accordance with ACS, DVGW, WRAS and ÜA

|               |                 |       |          |            |    |
|---------------|-----------------|-------|----------|------------|----|
| Rotary valves | Internal thread | 2-way | PN 25/40 | DN 15...50 | 90 |
|---------------|-----------------|-------|----------|------------|----|

Please refer to the data sheets or notes for project planning for further technical data to be observed.

DN 15...50

|                           |                                               |
|---------------------------|-----------------------------------------------|
| Field of use              | Potable water applications (open/close)       |
| Fluid temperature         | 5...100°C                                     |
| Pipe connection           | Internal thread Rp (ISO 7-1)                  |
| Leakage rate              | Air-bubble tight, leakage rate A (EN 12266-1) |
| Potable water certificate | ACS, DVGW, WRAS and ÜA                        |

|                    |                                                                                     |       |                          |                          |                                |      |   |                      |      | PN 40 |      |                     |                         |                     |                         |                     |                         | PN 25               |                         |                     |                         |                     |                         |                     |                         |
|--------------------|-------------------------------------------------------------------------------------|-------|--------------------------|--------------------------|--------------------------------|------|---|----------------------|------|-------|------|---------------------|-------------------------|---------------------|-------------------------|---------------------|-------------------------|---------------------|-------------------------|---------------------|-------------------------|---------------------|-------------------------|---------------------|-------------------------|
|                    |                                                                                     |       |                          |                          |                                |      |   |                      |      | DN 15 |      | DN 15               |                         | DN 20               |                         | DN 25               |                         | DN 32               |                         | DN 40               |                         | DN 50               |                         |                     |                         |
|                    |                                                                                     |       |                          |                          |                                |      |   |                      |      | 2-way |      | $K_{vs}$<br>[m³/h]  | Valve type              | $K_{vs}$<br>[m³/h]  | Valve type              | $K_{vs}$<br>[m³/h]  | Valve type              | $K_{vs}$<br>[m³/h]  | Valve type              | $K_{vs}$<br>[m³/h]  | Valve type              | $K_{vs}$<br>[m³/h]  | Valve type              |                     |                         |
|                    |                                                                                     |       |                          |                          |                                |      |   |                      |      |       |      | 16                  | C215QPW-N               | 16                  | R215PW-N                | 32                  | R220PW-P                | 40                  | R225PW-Q                | 63                  | R232PW-R                | 100                 | R240PW-R                | 150                 | R250PW-S                |
|                    |                                                                                     |       |                          |                          |                                |      |   |                      |      |       |      | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa | $\Delta p_s$<br>kPa | $\Delta p_{max}$<br>kPa |
| Standard actuators |                                                                                     |       |                          |                          |                                |      |   |                      |      |       |      |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |
| CQ..               |  | 1 Nm  | <input type="checkbox"/> | <input type="checkbox"/> | 24 V                           | 75 s |   | CQ24A                | 1600 | 200   |      |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |
|                    |                                                                                     |       | <input type="checkbox"/> | <input type="checkbox"/> | 230 V                          |      |   | CQ230A               | 1600 | 200   |      |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |
| LR..<br>NR..       |  | 5 Nm  | <input type="checkbox"/> | <input type="checkbox"/> | 24 V                           | 90 s | 1 | LR24A                |      |       | 1600 | 200                 | 1600                    | 200                 | 1600                    | 200                 |                         |                     |                         |                     |                         |                     |                         |                     |                         |
|                    |                                                                                     |       | <input type="checkbox"/> | <input type="checkbox"/> | 230 V                          |      | 1 | LR24A-S              |      |       | 1600 | 200                 | 1600                    | 200                 | 1600                    | 200                 |                         |                     |                         |                     |                         |                     |                         |                     |                         |
|                    |                                                                                     |       | <input type="checkbox"/> | <input type="checkbox"/> |                                |      | 1 | LR230A               |      |       | 1600 | 200                 | 1600                    | 200                 | 1600                    | 200                 |                         |                     |                         |                     |                         |                     |                         |                     |                         |
|                    |                                                                                     |       | <input type="checkbox"/> | <input type="checkbox"/> |                                |      | 1 | LR230A-S             |      |       | 1600 | 200                 | 1600                    | 200                 | 1600                    | 200                 |                         |                     |                         |                     |                         |                     |                         |                     |                         |
| SR..               |  | 10 Nm | <input type="checkbox"/> | <input type="checkbox"/> | 24 V                           | 90 s | 1 | NR24A                |      |       |      |                     |                         |                     |                         |                     | 1600                    | 170                 |                         |                     |                         |                     |                         |                     |                         |
|                    |                                                                                     |       | <input type="checkbox"/> | <input type="checkbox"/> |                                |      | 1 | NR24A-S              |      |       |      |                     |                         |                     |                         |                     | 1600                    | 170                 |                         |                     |                         |                     |                         |                     |                         |
|                    |                                                                                     |       | <input type="checkbox"/> | <input type="checkbox"/> | 230 V                          |      | 1 | NR230A <sup>1)</sup> |      |       |      |                     |                         |                     |                         |                     | 1600                    | 170                 |                         |                     |                         |                     |                         |                     |                         |
|                    |                                                                                     |       | <input type="checkbox"/> | <input type="checkbox"/> |                                |      | 1 | NR230A-S             |      |       |      |                     |                         |                     |                         |                     | 1600                    | 170                 |                         |                     |                         |                     |                         |                     |                         |
|                    |                                                                                     |       | <input type="checkbox"/> | <input type="checkbox"/> | 24 V                           |      | 1 | SR24A                |      |       |      |                     |                         |                     |                         |                     |                         |                     | 1600                    | 170                 | 1600                    | 130                 |                         |                     |                         |
|                    |                                                                                     |       | <input type="checkbox"/> | <input type="checkbox"/> | 230 V                          |      | 1 | SR24A-S              |      |       |      |                     |                         |                     |                         |                     |                         |                     | 1600                    | 170                 | 1600                    | 130                 |                         |                     |                         |
| CQK..              |  | 1 Nm  | <input type="checkbox"/> | <input type="checkbox"/> | 24 V                           | 75 s |   | CQK24A               | 1600 | 200   |      |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |
|                    |                                                                                     |       | <input type="checkbox"/> | <input type="checkbox"/> | 230 V                          |      |   | CQK230A              | 1600 | 200   |      |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |                     |                         |
|                    |                                                                                     |       | <input type="checkbox"/> | <input type="checkbox"/> | 24 V                           |      | 1 | LRF24                |      |       | 1600 | 200                 | 1600                    | 200                 | 1600                    | 200                 |                         |                     |                         |                     |                         |                     |                         |                     |                         |
|                    |                                                                                     |       | <input type="checkbox"/> | <input type="checkbox"/> |                                |      | 1 | LRF24-S              |      |       | 1600 | 200                 | 1600                    | 200                 | 1600                    | 200                 |                         |                     |                         |                     |                         |                     |                         |                     |                         |
| LRF..              |  | 4 Nm  | <input type="checkbox"/> | <input type="checkbox"/> | 24 V                           | 75 s | 1 | LRF230               |      |       | 1600 | 200                 | 1600                    | 200                 | 1600                    | 200                 |                         |                     |                         |                     |                         |                     |                         |                     |                         |
|                    |                                                                                     |       | <input type="checkbox"/> | <input type="checkbox"/> | 230 V                          |      | 1 | LRF230-S             |      |       | 1600 | 200                 | 1600                    | 200                 | 1600                    | 200                 |                         |                     |                         |                     |                         |                     |                         |                     |                         |
|                    |                                                                                     |       | <input type="checkbox"/> | <input type="checkbox"/> |                                |      |   |                      |      |       |      |                     |                         |                     |                         |                     | 1600                    | 170                 |                         |                     |                         |                     |                         |                     |                         |
|                    |                                                                                     |       | <input type="checkbox"/> | <input type="checkbox"/> | AC 24...240 V<br>DC 24...125 V |      | 2 | NRFA-S2              |      |       |      |                     |                         |                     |                         |                     | 1600                    | 170                 |                         |                     |                         |                     |                         |                     |                         |
| NRF..<br>SRF..     |  | 10 Nm | <input type="checkbox"/> | <input type="checkbox"/> | 24 V                           | 75 s | 2 | SRF24A               |      |       |      |                     |                         |                     |                         |                     |                         |                     | 1600                    | 170                 | 1600                    | 130                 |                         |                     |                         |
|                    |                                                                                     |       | <input type="checkbox"/> | <input type="checkbox"/> |                                |      | 2 | SRF24A-S2            |      |       |      |                     |                         |                     |                         |                     |                         |                     |                         | 1600                | 170                     | 1600                | 130                     |                     |                         |
|                    |                                                                                     |       | <input type="checkbox"/> | <input type="checkbox"/> | AC 24...240 V<br>DC 24...125 V |      |   | SRFA                 |      |       |      |                     |                         |                     |                         |                     |                         |                     | 1600                    | 170                 | 1600                    | 130                 |                         |                     |                         |
|                    |                                                                                     |       | <input type="checkbox"/> | <input type="checkbox"/> |                                |      | 2 | SRFA-S2              |      |       |      |                     |                         |                     |                         |                     |                         |                     | 1600                    | 170                 | 1600                    | 130                 |                         |                     |                         |

<sup>1)</sup> Actuators NR230A and SR230A are also available as fast running actuators on request.

11

Open/close and changeover butterfly valves

Open/close and changeover applications

|             |                 |            |              |    |
|-------------|-----------------|------------|--------------|----|
| Wafer type  | 2-way           | PN 6/10/16 | DN 25...300  | 94 |
|             |                 | PN 10/16   | DN 350       | 96 |
|             |                 | PN 16      | DN 400...700 | 96 |
| Lug type    | 2-way           | PN 10/16   | DN 25...150  | 94 |
|             |                 | PN 16      | DN 200...300 | 94 |
|             |                 | PN 16      | DN 350...700 | 96 |
|             | 3-way           | PN 16      | DN 100...300 | 98 |
| Definitions | Formula symbols |            |              | 99 |

Please refer to the data sheets or notes for project planning for further technical data to be observed.

# DN 25...300

|                                |                                       |
|--------------------------------|---------------------------------------|
| Field of use                   | Closed and open water systems (pH >7) |
| Fluid temperature              | –20...120°C                           |
| Pipe connection                | Flange (ISO 7005-2 and EN 1092-2)     |
| Leakage rate                   | Tight, leakage rate A (EN 12266-1)    |
| Permissible operating pressure | p <sub>s</sub> : 1600 kPa             |

|                                                                                                                                                                       |        |                          |                          |                          |                          |  |  |               |                    |   |  |               |                          |                           |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------------------------|--------------------------|--------------------------|--------------------------|--|--|---------------|--------------------|---|--|---------------|--------------------------|---------------------------|--------------------------|-----------------------------|--------------------------|-----------------------------|--------------------------|-----------------------------|--------------------------|-----------------------------|--------------------------|-----------------------------|--------------------------|-----------------------------|--------------------------|-----------------------------|--------------------------|-----------------------------|--------------------------|-----------------------------|--------------------------|-----------------------------|--------------------------|-----------------------------|--------------------------|-----------------------------|--------------------------|
| Permissible operating pressure                                                                                                                                        |        |                          |                          |                          |                          |  |  |               |                    |   |  |               |                          | p <sub>S</sub> : 1600 kPa |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |
| <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div> |        |                          |                          |                          |                          |  |  |               |                    |   |  |               |                          | PN 6/10/16                |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |
|                                                                                                                                                                       |        |                          |                          |                          |                          |  |  |               |                    |   |  |               |                          | DN 25                     |                          | DN 32                       |                          | DN 40                       |                          | DN 50                       |                          | DN 65                       |                          | DN 80                       |                          | DN 100                      |                          | DN 125                      |                          | DN 150                      |                          | DN 200                      |                          | DN 250                      |                          | DN 300                      |                          |                             |                          |
| <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div> |        |                          |                          |                          |                          |  |  |               |                    |   |  |               |                          | Wafer type                |                          | K <sub>Vmax</sub><br>[m³/h] | Valve type               | K <sub>Vmax</sub><br>[m³/h] | Valve type               | K <sub>Vmax</sub><br>[m³/h] | Valve type               | K <sub>Vmax</sub><br>[m³/h] | Valve type               | K <sub>Vmax</sub><br>[m³/h] | Valve type               | K <sub>Vmax</sub><br>[m³/h] | Valve type               | K <sub>Vmax</sub><br>[m³/h] | Valve type               | K <sub>Vmax</sub><br>[m³/h] | Valve type               | K <sub>Vmax</sub><br>[m³/h] | Valve type               | K <sub>Vmax</sub><br>[m³/h] | Valve type               | K <sub>Vmax</sub><br>[m³/h] | Valve type               | K <sub>Vmax</sub><br>[m³/h] | Valve type               |
|                                                                                                                                                                       |        |                          |                          |                          |                          |  |  |               |                    |   |  |               |                          | 50                        | D625N                    | 55                          | D632N                    | 65                          | D640N                    | 100                         | D650N                    | 170                         | D665N                    | 260                         | D680N                    | 690                         | D6100W                   | 990                         | D6125W                   | 1780                        | D6150W                   | 2200                        | D6200W                   | 4200                        | D6250W                   | 5700                        | D6300W                   |                             |                          |
| <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div> |        |                          |                          |                          |                          |  |  |               |                    |   |  |               |                          | PN 10/16                  |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |
|                                                                                                                                                                       |        |                          |                          |                          |                          |  |  |               |                    |   |  |               |                          | DN 25                     |                          | DN 32                       |                          | DN 40                       |                          | DN 50                       |                          | DN 65                       |                          | DN 80                       |                          | DN 100                      |                          | DN 125                      |                          | DN 150                      |                          | DN 200                      |                          | DN 250                      |                          | DN 300                      |                          |                             |                          |
| <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div> |        |                          |                          |                          |                          |  |  |               |                    |   |  |               |                          | Lug type                  |                          | K <sub>Vmax</sub><br>[m³/h] | Valve type               | K <sub>Vmax</sub><br>[m³/h] | Valve type               | K <sub>Vmax</sub><br>[m³/h] | Valve type               | K <sub>Vmax</sub><br>[m³/h] | Valve type               | K <sub>Vmax</sub><br>[m³/h] | Valve type               | K <sub>Vmax</sub><br>[m³/h] | Valve type               | K <sub>Vmax</sub><br>[m³/h] | Valve type               | K <sub>Vmax</sub><br>[m³/h] | Valve type               | K <sub>Vmax</sub><br>[m³/h] | Valve type               | K <sub>Vmax</sub><br>[m³/h] | Valve type               | K <sub>Vmax</sub><br>[m³/h] | Valve type               | K <sub>Vmax</sub><br>[m³/h] | Valve type               |
|                                                                                                                                                                       |        |                          |                          |                          |                          |  |  |               |                    |   |  |               |                          | 50                        | D625NL                   | 55                          | D632NL                   | 65                          | D640NL                   | 100                         | D650NL                   | 170                         | D665NL                   | 260                         | D680NL                   | 690                         | D6100WL                  | 990                         | D6125WL                  | 1780                        | D6150WL                  | 2200                        | D6200WL                  | 4200                        | D6250WL                  | 5700                        | D6300WL                  |                             |                          |
| <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div> |        |                          |                          |                          |                          |  |  |               |                    |   |  |               |                          | Linkage type              |                          | ZJR03 <sup>6)</sup>         |                          | ZJR03 <sup>6)</sup>         |                          | ZJR03 / ZPR03 <sup>6)</sup> |                          | ZJR03 / ZPR03               |                          | ZJR01 / ZPR01               |                          | ZJR01 / ZPR01               |                          | ZPR01                       |                          | ZPR01                       |                          | ZPR01                       |                          | ZPR01                       |                          | ZPR01                       |                          |                             |                          |
|                                                                                                                                                                       |        |                          |                          |                          |                          |  |  |               |                    |   |  |               |                          | Δp <sub>S</sub><br>kPa    | Δp <sub>max</sub><br>kPa | Δp <sub>S</sub><br>kPa      | Δp <sub>max</sub><br>kPa | Δp <sub>S</sub><br>kPa      | Δp <sub>max</sub><br>kPa | Δp <sub>S</sub><br>kPa      | Δp <sub>max</sub><br>kPa | Δp <sub>S</sub><br>kPa      | Δp <sub>max</sub><br>kPa | Δp <sub>S</sub><br>kPa      | Δp <sub>max</sub><br>kPa | Δp <sub>S</sub><br>kPa      | Δp <sub>max</sub><br>kPa | Δp <sub>S</sub><br>kPa      | Δp <sub>max</sub><br>kPa | Δp <sub>S</sub><br>kPa      | Δp <sub>max</sub><br>kPa | Δp <sub>S</sub><br>kPa      | Δp <sub>max</sub><br>kPa | Δp <sub>S</sub><br>kPa      | Δp <sub>max</sub><br>kPa | Δp <sub>S</sub><br>kPa      | Δp <sub>max</sub><br>kPa | Δp <sub>S</sub><br>kPa      | Δp <sub>max</sub><br>kPa |
| Suitable actuators                                                                                                                                                    |        |                          |                          |                          |                          |  |  |               |                    |   |  |               |                          | Standard actuators        |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |
| SR..                                                                                                                                                                  | 20 Nm  | <input type="checkbox"/> | <input type="checkbox"/> |                          |                          |  |  | 24 V          | 90 s               |   |  | IP54          | SR24A-5                  | 1200                      | 300                      | 1200                        | 300                      | 1200                        | 300                      |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |
|                                                                                                                                                                       |        | <input type="checkbox"/> | <input type="checkbox"/> |                          |                          |  |  | 230 V         |                    |   |  |               | SR230A-5                 | 1200                      | 300                      | 1200                        | 300                      | 1200                        | 300                      |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |
| GR..                                                                                                                                                                  | 40 Nm  | <input type="checkbox"/> | <input type="checkbox"/> |                          | <input type="checkbox"/> |  |  | 24 V          | 90 s               |   |  | IP54          | GR24.11 <sup>5)</sup>    | 1200                      | 300                      | 1200                        | 300                      | 1200                        | 300                      | 1200                        | 300                      | 1200                        | 300                      |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |
|                                                                                                                                                                       |        | <input type="checkbox"/> | <input type="checkbox"/> |                          | <input type="checkbox"/> |  |  | 230 V         |                    |   |  |               | GR230.11 <sup>5)</sup>   | 1200                      | 300                      | 1200                        | 300                      | 1200                        | 300                      | 1200                        | 300                      | 1200                        | 300                      |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |
| GR..                                                                                                                                                                  |        |                          |                          |                          |                          |  |  |               |                    |   |  |               |                          | Fast running actuators    |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |
| JR..                                                                                                                                                                  | 40 Nm  | <input type="checkbox"/> | <input type="checkbox"/> |                          | <input type="checkbox"/> |  |  | 24 V          | 35 s <sup>2)</sup> | 2 |  | IP54          | GRC24S.14 <sup>5)</sup>  | 1200                      | 300                      | 1200                        | 300                      | 1200                        | 300                      | 1200                        | 300                      |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |
|                                                                                                                                                                       |        | <input type="checkbox"/> | <input type="checkbox"/> |                          | <input type="checkbox"/> |  |  | 230 V         |                    |   |  |               | GRC230S.14 <sup>5)</sup> | 1200                      | 300                      | 1200                        | 300                      | 1200                        | 300                      | 1200                        | 300                      | 1200                        | 300                      |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |
| JR..                                                                                                                                                                  | 90 Nm  | <input type="checkbox"/> | <input type="checkbox"/> |                          | <input type="checkbox"/> |  |  | AC 24...240 V | 35 s <sup>3)</sup> | 2 |  | IP66/<br>IP67 | JRCA-S2-T                |                           |                          |                             |                          | 1200                        | 300                      | 1200                        | 300                      | 1400                        | 300                      | 1400                        | 300                      | 1400                        | 300                      |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |
|                                                                                                                                                                       |        | <input type="checkbox"/> | <input type="checkbox"/> |                          | <input type="checkbox"/> |  |  | DC 24...125 V |                    |   |  |               |                          |                           |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |
| JR..                                                                                                                                                                  | 160 Nm | <input type="checkbox"/> | <input type="checkbox"/> |                          | <input type="checkbox"/> |  |  | AC 24...240 V | 35 s <sup>3)</sup> | 2 |  | IP66/<br>IP67 | PRCA-S2-T                |                           |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             | 1400                     | 300                         |                          |                             |                          |                             |                          |                             |                          |                             |                          |
|                                                                                                                                                                       |        | <input type="checkbox"/> | <input type="checkbox"/> |                          | <input type="checkbox"/> |  |  | DC 24...125 V |                    |   |  |               | PRCA-S2-T-200            |                           |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             | 1400                     | 300                         |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |
| JR..                                                                                                                                                                  |        |                          |                          |                          |                          |  |  |               |                    |   |  |               |                          | PRCA-S2-T-250             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |
| SRF..                                                                                                                                                                 |        |                          |                          |                          |                          |  |  |               |                    |   |  |               |                          | Fail-safe actuators NC/NO |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |
| SRF..                                                                                                                                                                 | 20 Nm  | <input type="checkbox"/> |                          |                          |                          |  |  | 24 V          | 75 s               | 2 |  | IP54          | SRF24A-5                 | 1200                      | 300                      | 1200                        | 300                      | 1200                        | 300                      | 1200                        |                          | 1200                        |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |
|                                                                                                                                                                       |        | <input type="checkbox"/> |                          |                          |                          |  |  | AC 24...240 V |                    |   |  |               | SRF24A-S2-5              | 1200                      | 300                      | 1200                        | 300                      | 1200                        | 300                      | 1200                        |                          | 1200                        |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |
| GRK..                                                                                                                                                                 | 40 Nm  | <input type="checkbox"/> |                          |                          |                          |  |  | DC 24...125 V | 150 s              | 2 |  | IP54          | SRFA-5                   | 1200                      | 300                      | 1200                        | 300                      | 1200                        | 300                      | 1200                        |                          | 1200                        |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |
|                                                                                                                                                                       |        | <input type="checkbox"/> |                          |                          |                          |  |  | 4 V           |                    |   |  |               | GRK24A-5                 | 1200                      | 300                      | 1200                        | 300                      | 1200                        | 300                      | 1200                        |                          | 1200                        |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |
| PRK..                                                                                                                                                                 | 160 Nm | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  | AC 24...240 V | 35 s <sup>4)</sup> | 2 |  | IP66/<br>IP67 | PRKCA-BAC-S2-T           |                           |                          |                             |                          |                             |                          |                             | 1200                     | 300                         | 1200                     | 300                         | 1200                     | 300                         | 1200                     | 300                         |                          | 1400                        | 300                      |                             |                          |                             |                          |                             |                          |                             |                          |
|                                                                                                                                                                       |        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  | DC 24...125 V |                    |   |  |               | PRKCA-BAC-S2-T-200       |                           |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |
| PRK..                                                                                                                                                                 |        |                          |                          |                          |                          |  |  |               |                    |   |  |               |                          | PRKCA-BAC-S2-T-250        |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |                             |                          |

<sup>1)</sup> Configurable with Belimo Assistant 2.  
<sup>2)</sup> 35...150 s configurable with Belimo Assistant 2.  
<sup>3)</sup> 20...120 s configurable with Belimo Assistant 2.  
<sup>4)</sup> 30...120 s configurable with Belimo Assistant 2.  
<sup>5)</sup> The new GR... actuator types will also be displayed in the Belimo webshop over the course of the year.  
<sup>6)</sup> Linkage is required only in combination with a JR or PR actuator.



DN 350...700

|                                |                                       |
|--------------------------------|---------------------------------------|
| Field of use                   | Closed and open water systems (pH >7) |
| Fluid temperature              | -20...120°C                           |
| Pipe connection                | Flange (ISO 7005-2 and EN 1092-2)     |
| Leakage rate                   | Tight, leakage rate A (EN 12266-1)    |
| Permissible operating pressure | p <sub>S</sub> : 1600 kPa             |

| Suitable actuators                                                                  | Nominal torque | Open/close | 3-point | Terminal connection | Nominal voltage<br>AC 230 V | Running time motor 90° | SPDT auxiliary switch | Degree of protection | Actuator type |  | PN 10/16 |      |     |     |     |      |     |      |     |      |     |     |     |
|-------------------------------------------------------------------------------------|----------------|------------|---------|---------------------|-----------------------------|------------------------|-----------------------|----------------------|---------------|--------------------------------------------------------------------------------------|----------|------|-----|-----|-----|------|-----|------|-----|------|-----|-----|-----|
|                                                                                     |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      | DN 350   |      |     |     |     |      |     |      |     |      |     |     |     |
|                                                                                     |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      | DN 400   |      |     |     |     |      |     |      |     |      |     |     |     |
|                                                                                     |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      | DN 450   |      |     |     |     |      |     |      |     |      |     |     |     |
|                                                                                     |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      | DN 500   |      |     |     |     |      |     |      |     |      |     |     |     |
| DN 600                                                                              |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| DN 700                                                                              |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| K <sub>vmax</sub> [m³/h]                                                            |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| Valve type                                                                          |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| 10900                                                                               |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| D6350N                                                                              |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| 14200                                                                               |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| D6400N                                                                              |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| 18800                                                                               |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| D6450N                                                                              |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| 24100                                                                               |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| D6500N                                                                              |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| 37300                                                                               |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| D6600N                                                                              |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| 42800                                                                               |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| D6700N                                                                              |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| PN 16                                                                               |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| DN 350                                                                              |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| DN 400                                                                              |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| DN 450                                                                              |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| DN 500                                                                              |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| DN 600                                                                              |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| DN 700                                                                              |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| K <sub>vmax</sub> [m³/h]                                                            |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| Valve type                                                                          |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| 10900                                                                               |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| D6350NL                                                                             |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| 14200                                                                               |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| D6400NL                                                                             |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| 18800                                                                               |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| D6450NL                                                                             |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| 24100                                                                               |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| D6500NL                                                                             |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| 37300                                                                               |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| D6600NL                                                                             |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| 42800                                                                               |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| D6700NL                                                                             |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| Linkage type                                                                        |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| ZSY-703                                                                             |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| ZSY-401                                                                             |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| ZSY-701                                                                             |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| ZSY-702                                                                             |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| ZSY-702                                                                             |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| ZSY-901                                                                             |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| ZSY-902                                                                             |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| ZSY-903                                                                             |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| Δp <sub>s</sub> kPa                                                                 |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| Δp <sub>max</sub> kPa                                                               |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| Δp <sub>s</sub> kPa                                                                 |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| Δp <sub>max</sub> kPa                                                               |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| Δp <sub>s</sub> kPa                                                                 |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| Δp <sub>max</sub> kPa                                                               |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| Δp <sub>s</sub> kPa                                                                 |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| Δp <sub>max</sub> kPa                                                               |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| Δp <sub>s</sub> kPa                                                                 |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| Δp <sub>max</sub> kPa                                                               |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| Δp <sub>s</sub> kPa                                                                 |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| Δp <sub>max</sub> kPa                                                               |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
| Fast running actuators                                                              |                |            |         |                     |                             |                        |                       |                      |               |                                                                                      |          |      |     |     |     |      |     |      |     |      |     |     |     |
|  | 650 Nm         | ■          | ■       | ■                   | 230 V                       | 31 s                   | 2                     | IP67                 | SY6-230-3-T   | 600                                                                                  | 300      |      |     | 600 | 300 |      |     |      |     |      |     |     |     |
|                                                                                     | 1000 Nm        | ■          | ■       | ■                   |                             | 55 s                   | 2                     | IP67                 | SY7-230A-3-T  |                                                                                      |          | 1200 | 300 |     |     | 1200 | 300 |      |     |      |     |     |     |
|                                                                                     | 1500 Nm        | ■          | ■       | ■                   |                             | 55 s                   | 2                     | IP67                 | SY8-230A-3-T  |                                                                                      |          |      |     |     |     | 1200 | 300 | 600  | 300 |      |     |     |     |
|                                                                                     | 2000 Nm        | ■          | ■       | ■                   |                             | 70 s                   | 2                     | IP67                 | SY9-230A-3-T  |                                                                                      |          |      |     |     |     |      |     | 1200 | 300 |      |     |     |     |
|                                                                                     | 2500 Nm        | ■          | ■       | ■                   |                             | 70 s                   | 2                     | IP67                 | SY10-230A-3-T |                                                                                      |          |      |     |     |     |      |     |      |     | 600  | 300 |     |     |
|                                                                                     | 3500 Nm        | ■          | ■       | ■                   |                             | 70 s                   | 2                     | IP67                 | SY12-230A-3-T |                                                                                      |          |      |     |     |     |      |     |      |     | 1000 | 300 | 200 | 200 |



DN 100...300

Field of use

Closed and open water systems (pH >7) for changeover applications

Fluid temperature

-20...120°C

Pipe connection

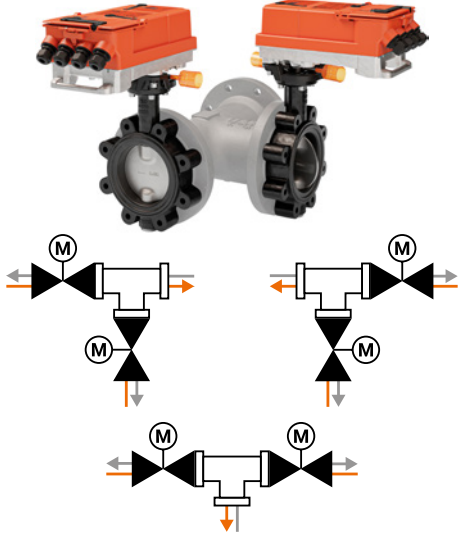
Flange (ISO 7005-2 and EN 1092-2)

Leakage rate

Tight, leakage rate A (EN 12266-1)

Permissible operating pressure

p<sub>s</sub>: 1600 kPa



↓

PN

DN

K<sub>vmax</sub> [m³/h]<sup>1)</sup>

Open/close<sup>2)</sup>

Modulating (2...10 V / 0.5...10 V)<sup>2)</sup>

Communication BACnet MS/TP<sup>2)</sup>

Communication Modbus RTU<sup>2)</sup>

Communication MP-Bus<sup>2)</sup>

Nominal voltage

Running time motor 90°<sup>2)</sup>

SPDT auxiliary switch

Degree of protection

Changeover butterfly valve type with actuator<sup>3)</sup>

Δp<sub>s</sub> kPa

Δp<sub>max</sub> kPa

T-piece type<sup>4)</sup>

Suitable T-pieces



Spheroidal graphite cast iron with fastening screws

| Communicative actuators                                                            |     |      |   |   |   |   |   |                                |      |   |               |             |      |     |        |
|------------------------------------------------------------------------------------|-----|------|---|---|---|---|---|--------------------------------|------|---|---------------|-------------|------|-----|--------|
|  | 100 | 530  | ■ | ■ | ■ | ■ | ■ | AC 24...240 V<br>DC 24...125 V | 35 s | 4 | IP66/<br>IP67 | D7100WL/BAC | 1400 | 300 | ZD7100 |
|                                                                                    | 125 | 950  | ■ | ■ | ■ | ■ | ■ |                                | 35 s | 4 | IP66/<br>IP67 | D7125WL/BAC | 1400 | 300 | ZD7125 |
|                                                                                    | 150 | 1380 | ■ | ■ | ■ | ■ | ■ |                                | 35 s | 4 | IP66/<br>IP67 | D7150WL/BAC | 1400 | 300 | ZD7150 |
|                                                                                    | 200 | 1800 | ■ | ■ | ■ | ■ | ■ |                                | 35 s | 4 | IP66/<br>IP67 | D7200WL/BAC | 1400 | 300 | ZD7200 |
|                                                                                    | 250 | 3000 | ■ | ■ | ■ | ■ | ■ |                                | 35 s | 4 | IP66/<br>IP67 | D7250WL/BAC | 1400 | 300 | ZD7250 |
|                                                                                    | 300 | 4700 | ■ | ■ | ■ | ■ | ■ |                                | 35 s | 4 | IP66/<br>IP67 | D7300WL/BAC | 1400 | 300 | ZD7300 |

1)

For changeover applications. The maximum flow speed of 4 m/s may not be exceeded in the changeover butterfly valve.

2)

Configurable with Belimo Assistant 2.

3)

The T-piece is not included in the scope of delivery.

4)

The necessary fastening screws and nuts are included in the scope of delivery.

# Definitions

## Formula symbols

**K<sub>v</sub>**

The flow coefficient K<sub>v</sub> [m³/h] is the specific flow of a valve at a specified valve position in relation to 100 kPa (1 bar).  
The K<sub>v</sub> value changes, depending on the valve position.  
The flow coefficient is determined at a water temperature of 5...40°C.

**K<sub>vs</sub>**

The K<sub>v</sub> value related to the nominal valve position is referred to as the K<sub>vs</sub> value.  
The manufacturer defines the maximum valve opening.  
Characterised control valves (CCV):  
Flow coefficient at 100% valve opening  
Zone valve (QCV):  
Flow coefficient with corresponding position of the end stop clip (variable)  
Globe valves:  
Flow coefficient at 100% valve opening  
Butterfly valves:  
Flow coefficient at 100% valve opening for open/close applications  
Flow coefficient at 60% valve opening for control applications

$$K_{vs} = \frac{V'_{100}}{\sqrt{\frac{\Delta p_{v100}}{100}}}$$

Δp<sub>v100</sub> : [kPa]

V'<sub>100</sub> : [m³/h]

K<sub>vs</sub> : [m³/h]

**Δp<sub>v0</sub>**

Maximum permissible differential pressure in the opening range of the valve

**Δp<sub>v100</sub>**

Differential pressure across the fully open valve at V'<sub>100</sub>

**Δp<sub>max</sub>**

Maximum permissible differential pressure across control path A–AB in relation to the entire opening range

**Δp<sub>MV</sub>**

Differential pressure across the variable-flow part (e.g. heat exchanger) at nominal load

**Δp<sub>VR</sub>**

Differential pressure at the respective branch (supply/return) at nominal load

**Δp<sub>vs</sub>**

Close-off pressure: The specified tightness of the valve is ensured up to this value.

**p<sub>s</sub>**

Permissible operating pressure kPa

**Q<sub>100</sub>**

Heating or cooling power of the consumer

**ΔT**

Differential temperature between supply and return

**P<sub>v</sub>**

Valve authority: The benchmark for the control characteristics of the valve in combination with the hydronic network. The valve authority is the ratio at nominal load between the differential pressure across the fully open valve (Δp<sub>v100</sub>) at nominal flow and the maximum occurring differential pressure across the closed valve.

**V'<sub>100</sub>**

Nominal flow at Δp<sub>v100</sub> (design case)

**V'<sub>max</sub>**

Set maximum flow rate of a pressure-independent valve with the highest control signal, e.g. 10 V

**V'<sub>nom</sub>**

Maximum possible flow rate of a pressure-independent valve, catalogue value, delivery condition

Subject to technical modifications

Subject to technical modifications

# All inclusive

Belimo is the global market leader in the development, production, and sales of field devices for the energy-efficient control of heating, ventilation and air-conditioning systems. The focus of our core business is on damper actuators, control valves, sensors and meters.

Always focusing on customer value, we deliver more than only products. We offer you the complete product range for the regulation and control of HVAC systems from a single source. At the same time, we rely on tested Swiss quality with a five-year warranty. Our worldwide representatives in over 80 countries guarantee short delivery times and comprehensive support through the entire product life. Belimo does indeed include everything.

The "small" Belimo devices have a big impact on comfort, energy efficiency, safety, installation and maintenance.

In short: Small devices, big impact.



5-year warranty



On site around the globe



Complete product range



Tested quality



Short delivery times



Comprehensive support



**BELIMO Automation AG**

Brunnenbachstrasse 1, 8340 Hinwil, Switzerland  
+41 43 843 61 11, [info@belimo.ch](mailto:info@belimo.ch), [www.belimo.com](http://www.belimo.com)

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