

2- and 3-port valves with flanged connections, PN 40

## 2- and 3-port valves with flanged connections, PN 40

V..F63..



VVF63..  
VVF63..K



VXF63..

### From the large-stroke valve line

- High-performance valves for medium temperatures of -25...220 °C
- Valve body of cast steel GP240GH
- DN 15...150
- $k_{vs}$  0.2...315 m<sup>3</sup>/h
- Flange type 21, flange design B
- Equipable with electro-hydraulic actuators SKD..., SKB..., SKC..

- 1) Usable up to a max. medium temperature of 150 °C
- 2) Valves with supplemental designation ..F (e.g. VVF63.25-10F) - with special flange can be ordered exclusively for France.
- 3) Valves with supplemental designation ..L (e.g. VVF63.25-10L) - with parabolic plug can be ordered for special applications (low noise).


DN = Nominal size

$k_{vs}$  = Flow nominal value of cold water (5...30 °C) through the fully opened valve ( $H_{100}$ ) at a differential pressure of 100 kPa (1 bar)

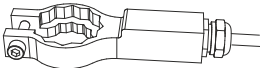


$S_v$  = Rangeability  $k_{vs} / k_{vT}$

$\Delta p_s$  = Maximum permissible differential pressure at which the motorized valve still closes securely against the pressure



$\Delta p_{max}$  = Maximum permissible differential pressure across the valve's throughport for the entire positioning range of the motorized valve

|  | Valves                     | Actuators         |                                 |       |              | SKD.. <sup>1)</sup> | SKB..        |                  | SKC..        |                  |   |
|--|----------------------------|-------------------|---------------------------------|-------|--------------|---------------------|--------------|------------------|--------------|------------------|---|
|  |                            | Hub               |                                 |       |              | 20 mm               |              | 40 mm            |              |                  |   |
|  | PN 40                      | Positioning force |                                 |       |              | 1000 N              | 2800 N       |                  | 2800 N       |                  |   |
|  |                            | Data sheet        |                                 |       |              | N4561               | N4664        |                  | N4566        |                  |   |
|   | Stock no.                  | DN                | $k_{vs}$<br>[m <sup>3</sup> /h] | $S_v$ | $\Delta p_s$ | $\Delta p_{max}$    | $\Delta p_s$ | $\Delta p_{max}$ | $\Delta p_s$ | $\Delta p_{max}$ |   |
|  |                            |                   |                                 |       | [kPa]        |                     |              |                  |              |                  |   |
| <b>Steam</b> <sup>2)</sup><br>Exclusive flow direction AB-A for steam. Also useful for maximum close-off pressure $\Delta p_s$ and maximum differential pressure in operation ( $\Delta p_{max}$ ) with liquids. | VVF63.15-0.2 <sup>2)</sup> | S55210-V100       | 15                              | 0.2   | > 50         | 4000                | 2000         | 4000             | 2000         | -                | - |
|  | VVF63.15-0.32              | S55210-V101       | 15                              | 0.32  |              |                     |              |                  |              |                  |   |
|  | VVF63.15-0.5               | S55210-V102       | 15                              | 0.5   |              |                     |              |                  |              |                  |   |
|  | VVF63.15-0.8               | S55210-V103       | 15                              | 0.8   |              |                     |              |                  |              |                  |   |
|  | VVF63.15-1.25              | S55210-V104       | 15                              | 1.25  |              |                     |              |                  |              |                  |   |
|  | VVF63.15-2                 | S55210-V105       | 15                              | 2     |              |                     |              |                  |              |                  |   |
|  | VVF63.15-3.2               | S55210-V106       | 15                              | 3.2   |              |                     |              |                  |              |                  |   |
|  | VVF63.20-6.3 <sup>3)</sup> | S55210-V107       | 20                              | 5     |              |                     |              |                  |              |                  |   |
|  | VVF63.25-5                 | S55210-V108       | 25                              | 5     |              |                     |              |                  |              |                  |   |
|  | VVF63.25-8                 | S55210-V109       | 25                              | 8     |              |                     |              |                  |              |                  |   |
|  | VVF63.32-16                | S55210-V110       | 32                              | 15    |              |                     |              |                  |              |                  |   |
|  | VVF63.40-12.5              | S55210-V111       | 40                              | 12.5  |              |                     |              |                  |              |                  |   |
|  | VVF63.40-20                | S55210-V112       | 40                              | 20    |              |                     |              |                  |              |                  |   |
|  | VVF63.50-31.5              | S55210-V113       | 50                              | 31.5  |              |                     |              |                  |              |                  |   |
|  | VVF63.65-50                | S55210-V114       | 65                              | 50    |              |                     |              |                  |              |                  |   |
|  | VVF63.80-80                | S55210-V115       | 80                              | 80    |              |                     |              |                  |              |                  |   |
|  | VVF63.100-125              | S55210-V116       | 100                             | 125   |              |                     |              |                  |              |                  |   |
|  | VVF63.125-200              | S55210-V117       | 125                             | 200   |              |                     |              |                  |              |                  |   |
| VVF63.150-315 <sup>3)</sup>  | S55210-V118                | 150               | 280                             |       |              |                     |              |                  |              |                  |   |

Accessories

| Type   | Stock no.    | Description           | Note  |   |
|--------|--------------|-----------------------|---|---|
| ASZ6.6 | S55845-Z108  | Steam heating element | Required for medium temperatures < 0 °C   |  |
| -      | 4 284 8806 0 | Steam sealing gland   | When using valves of the V..F63.. lines DN 15...50 with a stem heating element and a medium temperature below -5 °C, the stem sealing gland must be replaced. With the gland 428488060, the valve can be used with water, water with anti-freeze and brines between -25 °C and 150 °C.  |  |
| -      | 4 679 5629 0 | Steam sealing gland   | When using valves of the V..F63.. lines DN 65...150 with a stem heating element and a medium temperature below -5 °C, the stem sealing gland must be replaced. With the gland 467956290, the valve can be used with water, water with anti-freeze and brines between -25 °C and 150 °C. |  |

Spare parts

| Type                           | DN          | Stock no.     | Notes   |   |
|--------------------------------|-------------|---------------|---|---|
| VVF63..<br>VXF63..<br>VVF63..K | DN 15...50  | 74 284 0061 0 | Standard version with FEPM O-ring for medium temperatures between -5 °C and 220 °C.   |   |
| VVF63..<br>VXF63..<br>VVF63..K | DN 65...150 | S55846-Z114   | Standard version with FEPM O-ring for medium temperatures between -5 °C and 220 °C.   |   |
| VVF63..<br>VXF63..             | DN 15...50  | 4 284 8806 0  | When operating with medium temperatures below -5 °C. With the gland 428488060, the valve can be used with water, water with anti-freeze and brines between -25 °C and 150 °C. |  |
| VVF63..<br>VXF63..             | DN 65...150 | 4 679 5629 0  | When operating with medium temperatures below -5 °C. With the gland 467956290, the valve can be used with water, water with anti-freeze and brines between -25 °C and 150 °C. |  |

Equipment combinations

| Type            | Stock no.       | Stroke     | Positioning force | Operating voltage | Positioning signal                  | Spring return time | Positioning time               | LED                            | Manual adjuster              | Auxiliary functions |       |         |    |
|-----------------|-----------------|------------|-------------------|-------------------|-------------------------------------|--------------------|--------------------------------|--------------------------------|------------------------------|---------------------|-------|---------|----|
| SKD32.21        | SKD32.21        | 20 mm      | 1000 N            | AC 230 V          | 3-position                          | 8 s                | Opening: 30 s<br>Closing: 10 s | -                              | Turn, position is maintained | 1), 2),             |       |         |    |
| SKD32.50        | SKD32.50        |            |                   |                   |                                     |                    | -                              |                                |                              |                     | 120 s |         |    |
| SKD32.51        | SKD32.51        |            |                   |                   |                                     |                    | 8 s                            |                                |                              |                     |       |         |    |
| SKD60           | SKD60           |            |                   | AC 24 V           | 0...10 V<br>4...20 mA<br>0...1000 Ω | -                  | 15 s                           | Opening: 30 s<br>Closing: 10 s |                              |                     | x     |         | 3) |
| SKD62<br>SKD62U | SKD62<br>SKD62U |            |                   |                   |                                     |                    |                                |                                |                              |                     |       |         |    |
| SKD62UA         | SKD62UA         |            |                   |                   |                                     |                    |                                |                                |                              |                     |       |         |    |
| SKD82.50        | SKD82.50        | 3-position | -                 |                   |                                     |                    |                                |                                | 120 s                        | -                   |       | 1), 2), |    |

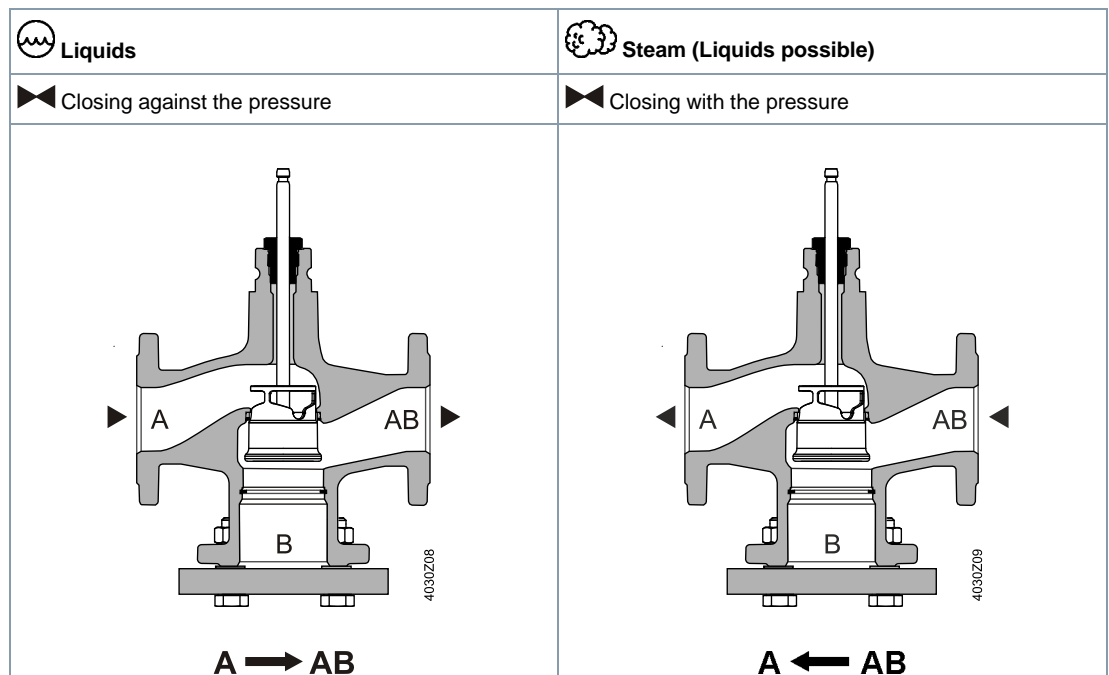
## Product documentation

| Title   | Content   | Document ID            |
|---|---|------------------------|
| Mounting instructions Valves VVF.. VXF..              | Mounting instructions: DN 15...150  | M4030<br>74 319 0749 0 |
| Valves VVF..,VXF..,VVG41.., VXG41.., VVI41.., VXI41.. | Basic documentation: Contains background information and general technical basics of valves | P4030                  |

## Technical design

The illustrations below show the basic design of the valves. Constructional features, such as the shape of plugs, may differ.

### 2-port valves

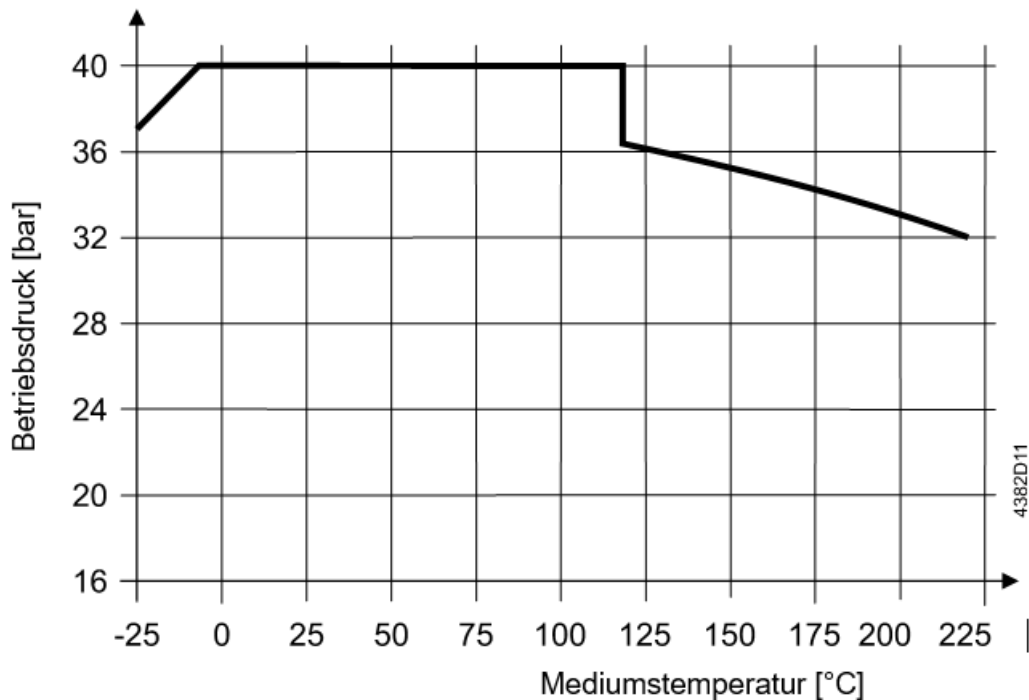


### 2-port valves **pressure-compensated**

The VVF63..K valves use a pressure-compensated plug. This enables the same type of actuators to be used for the control of volumetric flow at higher differential pressures.

### Operating pressure and medium temperature

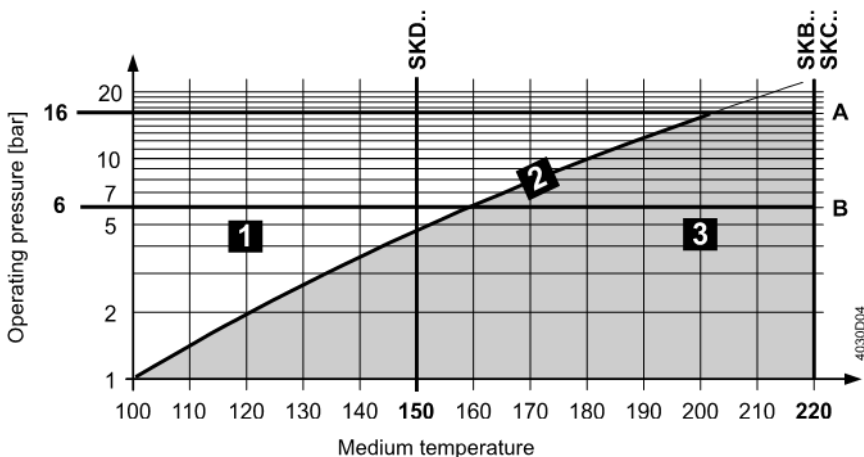
Liquids  
with V..F63..



### Operating pressure and operating temperatures according to ISO 7005, EN 1092, DIN 4747 and EN 12284

Note: All relevant local directives must be observed

Saturated steam  
Superheated steam  
with V..F63..



|   |                                      |                             |
|---|--------------------------------------|-----------------------------|
| 1 | Water                                | -                           |
| 2 | Wet steam                            | To be avoided               |
| 3 | Saturated steam<br>Superheated steam | Permissible operating range |
| A | Subcritical pressure ratio           |                             |
| B | Supercritical pressure ratio         |                             |