



aerospace  
climate control  
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filtration  
fluid & gas handling  
hydraulics  
pneumatics  
process control  
sealing & shielding



# Industrial Tube Fittings Europe

Technical handbook/Catalogue 4100-9/UK



ENGINEERING YOUR SUCCESS.

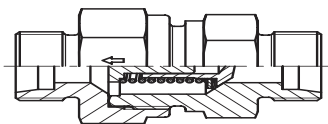


# **EO<sup>®</sup> Ermeto Original Valves**



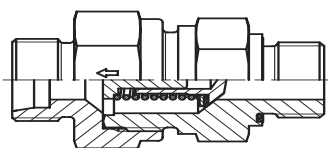
## Visual index Non return valves

**RHD** / p. O13



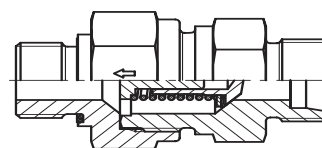
EO 24° cone end / EO 24° cone end

**RHV-R-ED** / p. O14



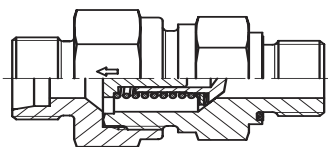
EO 24° cone end /  
Male BSPP thread – ED-seal (ISO 1179)

**RHZ-R-ED** / p. O15



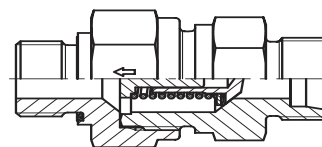
Male BSPP thread – ED-seal (ISO 1179) /  
EO 24° cone end

**RHV-M-ED** / p. O16



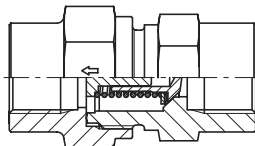
EO 24° cone end /  
Male metric thread – ED-seal (ISO 9974)

**RHZ-M-ED** / p. O17



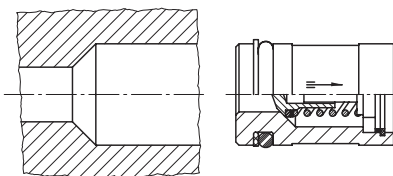
Male metric thread – ED-seal (ISO 9974) /  
EO 24° cone end

**RHDI** / p. O18



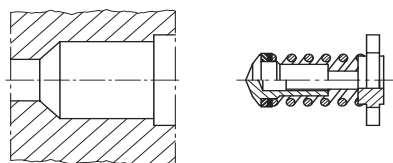
Female BSPP thread (ISO 1179-1) /  
Female BSPP thread (ISO 1179-1)

**RVP** / p. O19



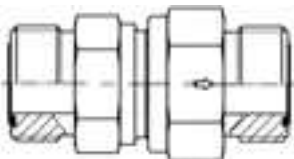
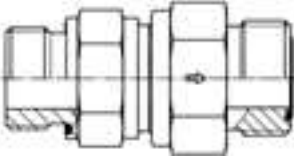
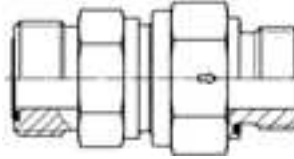
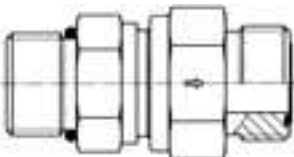
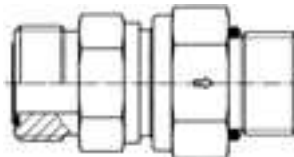
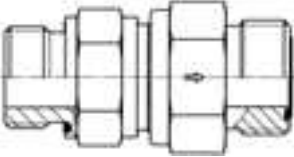
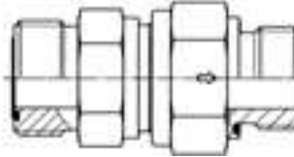
Non return valve cartridge

**I-TL** / p. O20



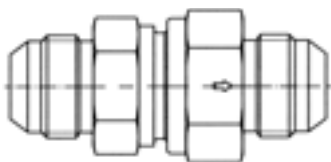
Internal parts of non return valve

## Visual index Non return valves with O-Lok® connections

|                                                                                                                                                                                             |                                                                                                                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>RHDMLOS</b> / p. O22</p>  <p>O-Lok® ORFS end / O-Lok® ORFS end</p>                                   |                                                                                                                                                                                              |
| <p><b>RHV42EDMLOS</b> / p. O23</p>  <p>Male BSPP thread – ED-seal (ISO 1179) /<br/>O-Lok® ORFS end</p>     | <p><b>RHZ42EDMLOS</b> / p. O24</p>  <p>O-Lok® ORFS end /<br/>Male BSPP thread – ED-seal (ISO 1179)</p>     |
| <p><b>RHV50MLOS</b> / p. O25</p>  <p>Male UN/UNF thread– O-ring (ISO 11926) /<br/>O-Lok® ORFS end</p>     | <p><b>RHZ50MLOS</b> / p. O26</p>  <p>O-Lok® ORFS end /<br/>Male UN/UNF thread– O-ring (ISO 11926)</p>     |
| <p><b>RHV82EDMLOS</b> / p. O27</p>  <p>Male metric thread – ED-seal (ISO 9974) /<br/>O-Lok® ORFS end</p> | <p><b>RHZ82EDMLOS</b> / p. O28</p>  <p>O-Lok® ORFS end /<br/>Male metric thread – ED-seal (ISO 9974)</p> |

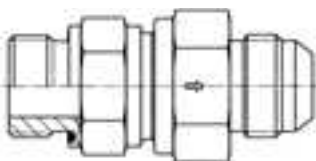
## Visual index Non return valves with Triple-Lok® connections

**RHDMTXS** / p. O29



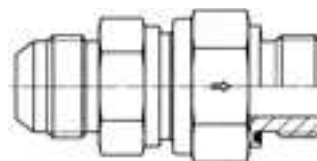
Triple-Lok® 37° flare end /  
Triple-Lok® 37° flare end

**RHV42EDMXS** / p. O30



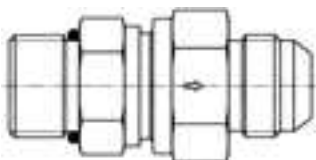
Male BSPP thread – ED-seal (ISO 1179) /  
Triple-Lok® 37° flare end

**RHZ42EDMXS** / p. O31



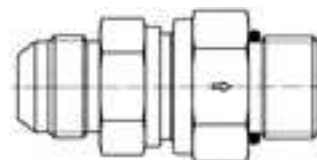
Triple-Lok® 37° flare end /  
Male BSPP thread – ED-seal (ISO 1179)

**RHV50MXS** / p. O32



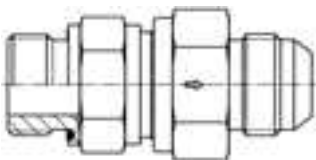
Male UN/UNF thread – O-ring (ISO 11926) /  
Triple-Lok® 37° flare end

**RHZ50MXS** / p. O33



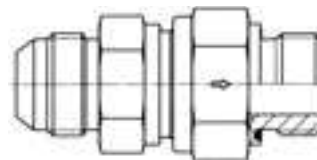
Triple-Lok® 37° flare end /  
Male UN/UNF thread – O-ring (ISO 11926)

**RHV82EDMXS** / p. O34



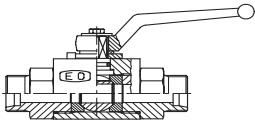
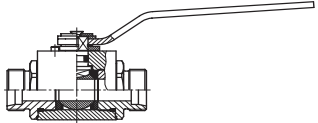
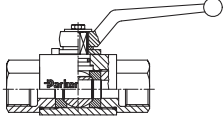
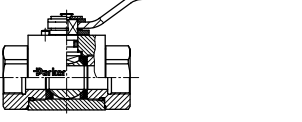
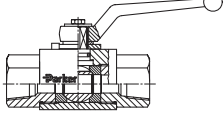
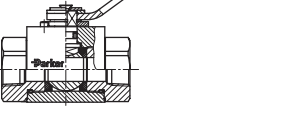
Male metric thread – ED-seal (ISO 9974) /  
Triple-Lok® 37° flare end

**RHZ82EDMXS** / p. O35

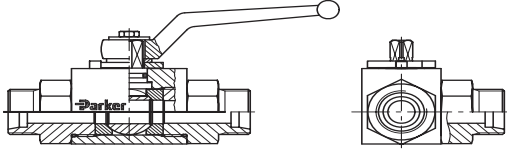
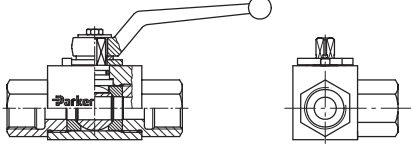
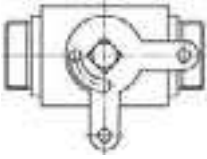


Triple-Lok® 37° flare end /  
Male metric thread – ED-seal (ISO 9974)

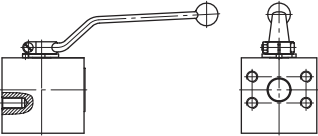
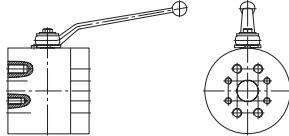
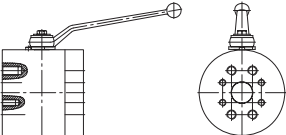
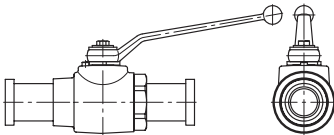
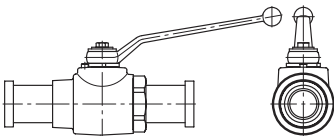
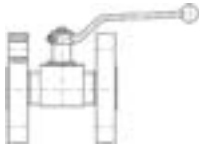
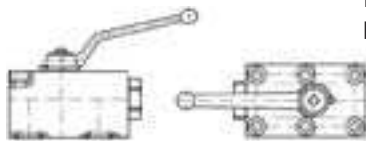
## Visual index 2/2-way ball valves Series KH

|                                                                                                                                                                                                     |                                                                                                                                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p><b>KH (S)</b><br/>p. O36</p> <p>EO 24° cone end / EO 24° cone end</p>                                          |  <p><b>KH (71)</b><br/>p. O37</p> <p>EO 24° cone end / EO 24° cone end</p>                                          |
|  <p><b>KH-BSPP (S)</b><br/>p. O38</p> <p>Female BSPP thread (ISO 1179-1) /<br/>Female BSPP thread (ISO 1179-1)</p> |  <p><b>KH-BSPP (71)</b><br/>p. O39</p> <p>Female BSPP thread (ISO 1179-1) /<br/>Female BSPP thread (ISO 1179-1)</p> |
|  <p><b>KH-NPT (S)</b><br/>p. O40</p> <p>Female NPT thread (SAE 476) /<br/>Female NPT thread (SAE 476)</p>          |  <p><b>KH-NPT (71)</b><br/>p. O41</p> <p>Female NPT thread (SAE 476) /<br/>Female NPT thread (SAE 476)</p>          |

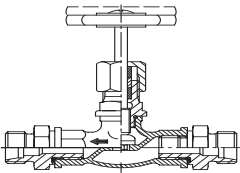
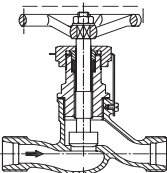
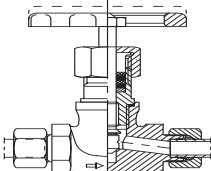
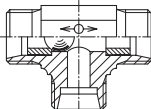
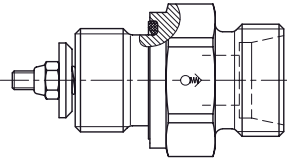
## Visual index 3/2-way ball valves

|                                                                                                                                                                                                                                         |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  <p><b>KH 3/2 (S)</b><br/>p. O42</p> <p>EO 24° cone end / EO 24° cone end / EO 24° cone end</p>                                                     |  |
|  <p><b>KH 3/2-BSPP(S)</b><br/>p. O43</p> <p>Female BSPP thread (ISO 1179-1) / Female BSPP thread (ISO 1179-1) / Female BSPP thread (ISO 1179-1)</p> |  |
|  <p><b>KH</b><br/>p. O44</p> <p>Locking Devices for 2/2 Way and Multiway ball valves</p>                                                             |  |

## Visual index SAE ball valves/Ball valves for block structure

|                                                                                                                                                                             |                                                                                                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p><b>KH-B1V-S</b><br/>p. O45</p> <p>Ball valve with SAE Flange connection</p>            |  <p><b>KH-B2V-S</b><br/>p. O46</p> <p>Ball valve with SAE Flange connection</p>                |
|  <p><b>KH-B3V-S</b><br/>p. O47</p> <p>Ball valve with SAE Flange connection</p>            |  <p><b>KH-A-S</b><br/>p. O48</p> <p>Ball valve with SAE Flange connection</p>                  |
|  <p><b>KH-A-S-71</b><br/>p. O49</p> <p>Ball valve with SAE Flange adapter connection</p>   |  <p><b>KH-B4V-S</b><br/>p. O50</p> <p>Ball valve with SAE Flange connection ISO 6162 (1/2)</p> |
|  <p><b>KHB5V-S</b><br/>p. O51</p> <p>Ball valve with Flange connection DIN EN 1092-1</p> |  <p><b>KHBLOCK</b><br/>p. O52</p> <p>2/2-way ball valve for block structure</p>              |

## Visual index shut off valves and Line Rupture Valves “LRV”

|                                                                                                                                                        |                                                                                                                                                                            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p><b>DV</b><br/>p. O53</p> <p>EO 24° cone end / EO 24° cone end</p> |  <p><b>LD</b><br/>p. O54</p> <p>EO 24° cone end / EO 24° cone end</p>                   |
|  <p><b>VDHA</b><br/>p. O55</p> <p>EO tube end / EO tube end</p>       |  <p><b>WV</b><br/>p. O56</p> <p>EO 24° cone end / EO 24° cone end / EO 24° cone end</p> |
|  <p><b>ELA/ELAE</b><br/>p. O57/O58</p> <p>Air-bleed valves</p>        |  <p><b>LRV 08 ... 22L</b><br/>p. O59</p> <p>EO 24° cone end</p>                          |



## Range of non return valves, alternating valves and hand-operated shut off valves

### Non-return valves with nominal pressure ratings up to PN 420 bar:

- with tube connection both ends: RHD
- with tube connection to male stud: RHV/RHZ
- with female thread both ends: RHDl
- valve cartridges: RVP
- valve internal parts: I-TL
- leakage rate hydraulic testing under test pressure: 1 drop per minute

### Alternating valves:

- for nominal pressure ratings up to PN 160 WV
- leakage rate hydraulic testing under test pressure: 20 drops per minute

### Shut-off valves:

- for high pressure ratings up to PN 630 bar VDHA

### Design:

1. For materials, permissible working pressures, temperatures, flow medium torques for male studs etc. see relevant pages of the catalogue.
2. Tube connection ends must be assembled according to the Parker EO/EO-2 assembly instructions.
3. The valve bodies must be held rigidly during assembly of the tube connection ends.
4. Test pressures for non return valves: PN in conformance with O.D. information see chapter C.
5. Pressure drop values please see p. C12 and diagrams.

### Caution!

Please note the admissible pressure ratings for the EO-tube ends.

## Range of quarter turn ball valves

### Quarter turn Hand-operated ball valves:

- for high pressure ratings up to PN 500 bar KH
- leakage rate hydraulic testing under test pressure: 0 drops per minute

The pressure specification PN for hand-operated shut-off valves and quarter turn ball valves applies to the design factor 1,5 (according DIN 3230 T5 and ISO 5208).

### Steel

#### Materials:

Body made of steel, Cr(VI)-free galvanized or bronzed (coating DIN 50938-FE//A/T4), ball of hard chrome plated carbon steel, stem of zinc plated steel.

#### Seals:

Ball seat of POM (e. g. Delrin), stem seal of NBR (e. g. Perbunan).

#### Applications:

Suitable for petroleum-based hydraulic fluid, lubricants and fuel oil.

For applications suitable up to 500 bar.

#### Temperature range:

–10 up to +100 °C.

### Stainless Steel

#### Materials:

Body made of stainless steel, ball of stainless steel, stem and connectors of stainless steel.

#### Seals:

Ball seat of POM (e. g. Delrin), stem seal of NBR (e. g. Perbunan), DOZ from function nut FKM (e. g. FKM).

#### Applications:

Suitable for petroleum-based hydraulic fluid, lubricants and fuel oil.

For applications suitable up to 500 bar.

#### Temperature range:

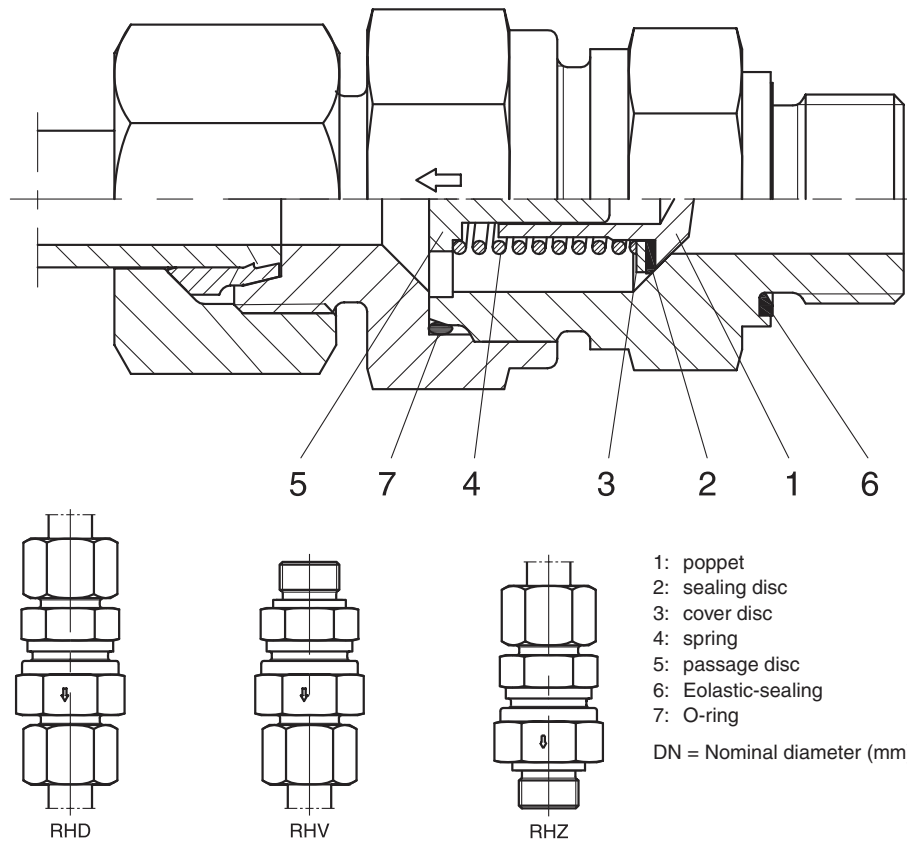
–30 up to +100 °C.

Perbunan = registered trademark of Bayer

### Notes:

To assess the suitability of valves for specific applications, please advise us of the exact specification of the medium to be used, max. working pressure incl. pressure peaks, temperature and frequency of valve operations. If water is used, indicate type of water or additives, if any.

## RHD/V/Z non return valve



### Characteristics:

Poppet check valve with a 90° valve seat with an elastomere sealing disc. Poppet stop for controlled valve opening. Damped opening action to minimize shock and noise. No reduction of cross section. Maximum flow velocity not more than 8 m/sec (for higher flow velocities special tests are required). Sealing of male stud thread by Eolastic soft seal with types RHV and RHZ.

### Opening pressure:

Standard 1 bar (on request also 0.2, 0.5, 2, 3, 4, 5 and 6 bar are available; please specify on order). For working pressure see appropriate tables. Cracking pressure tolerance:  $\pm 20\%$ .

### Material:

- Steel zinc-plated (CF Cr[VI]-free), seals in NBR (e.g. Perbunan), or (FKM) on request.

Perbunan = registered trademark of Bayer

- Stainless steel valves have FKM as standard. (Up to 3 bar cracking pressure)
- Brass-valves (CuZn35Ni2 2.0540) with internals (1.4571) available on request. (Up to 3 bar cracking pressure)

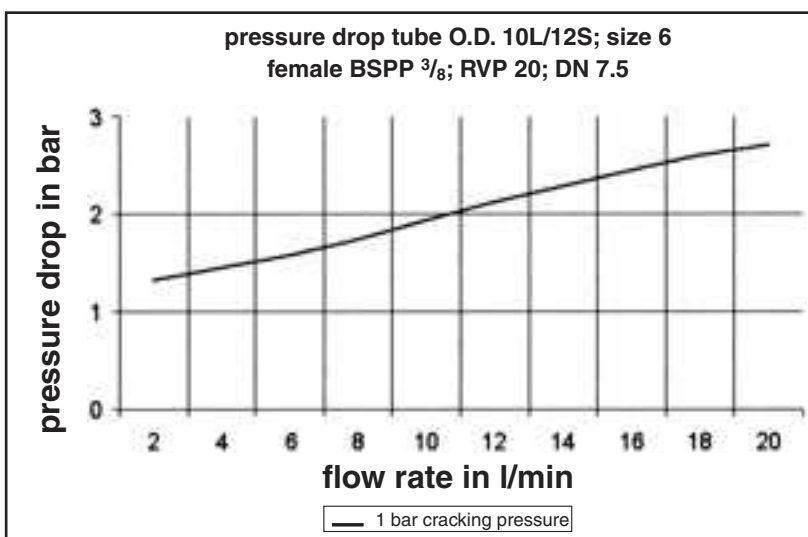
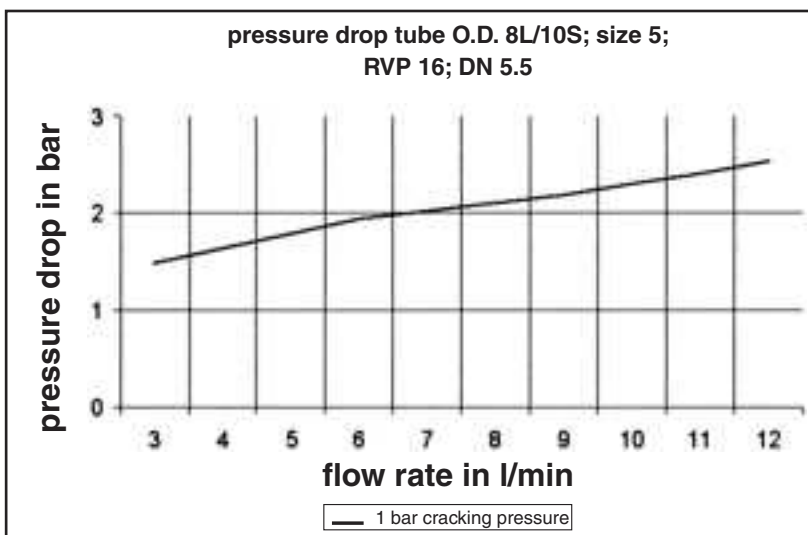
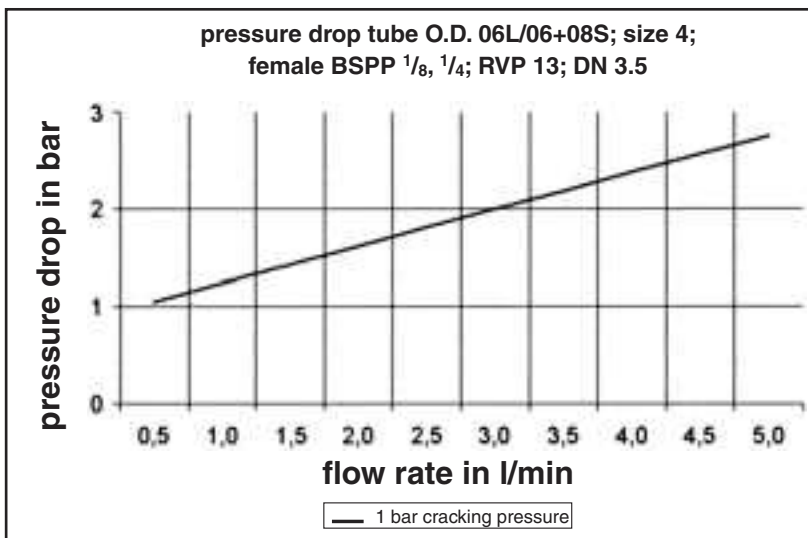
### Assembly:

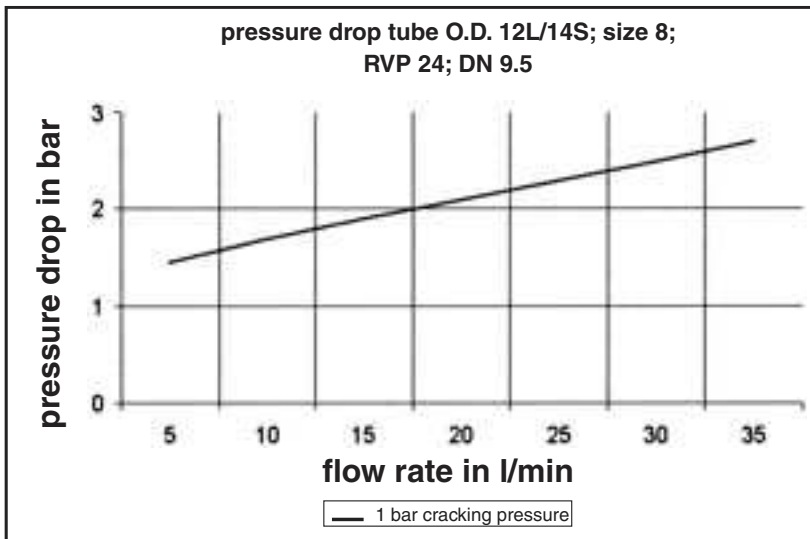
See assembly instructions for EO/EO 2 connections. Non-return valves are all packaged against contamination.

### Media:

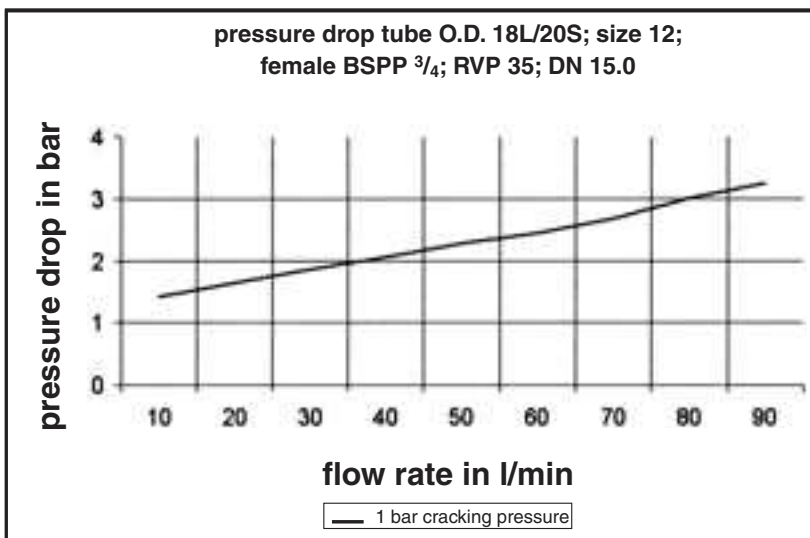
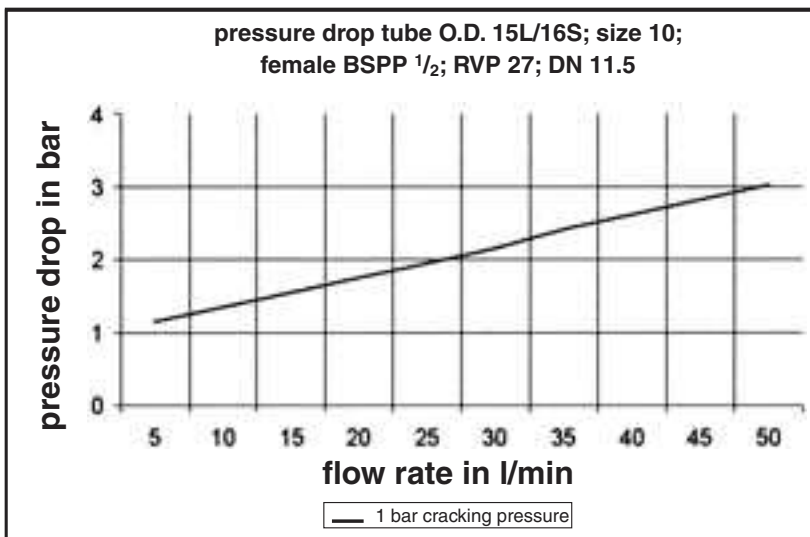
Hydraulic oil, low flammability hydraulic fluids (except for types HFC: for HFD types; FKM seals are necessary). Please indicate on order if used with compressed air. Not suitable for steam, combustible/explosive gases, or oxygen. For water applications, please consult Parker with details of water and any additives.

In all diagrams is the peak value of the flow rate in l/min. relating to the maximum permissible flow velocity of 8 m/sec.

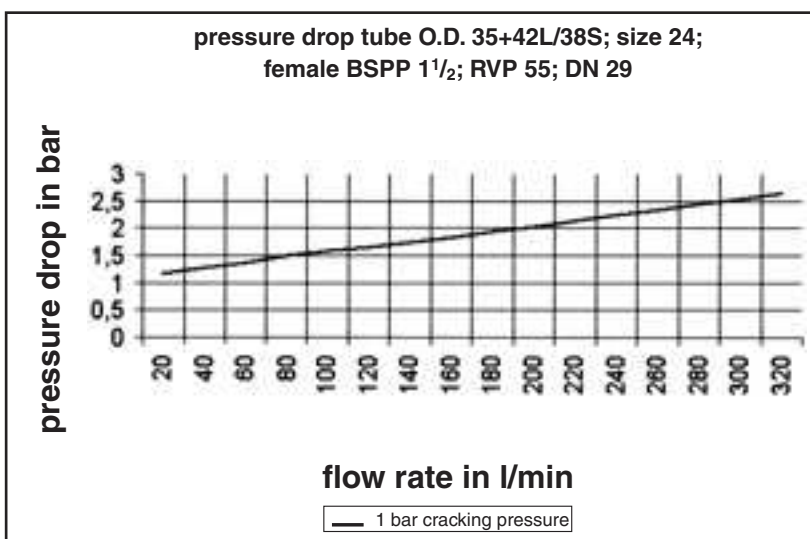
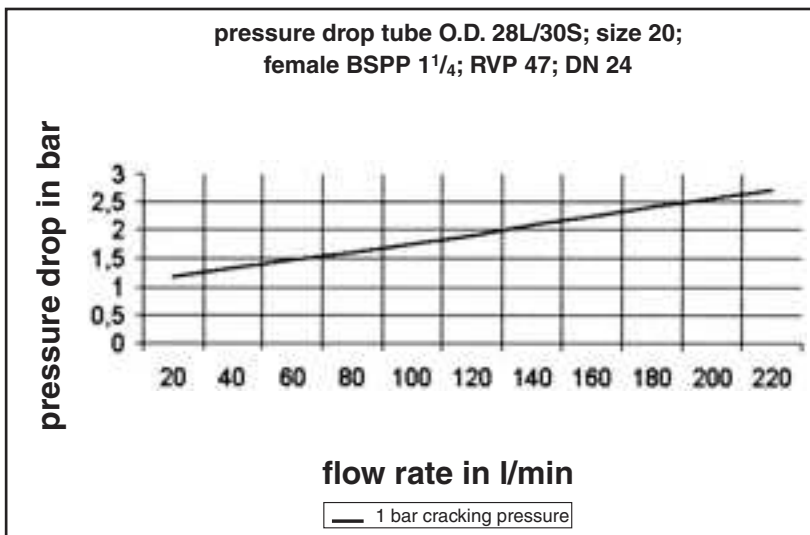
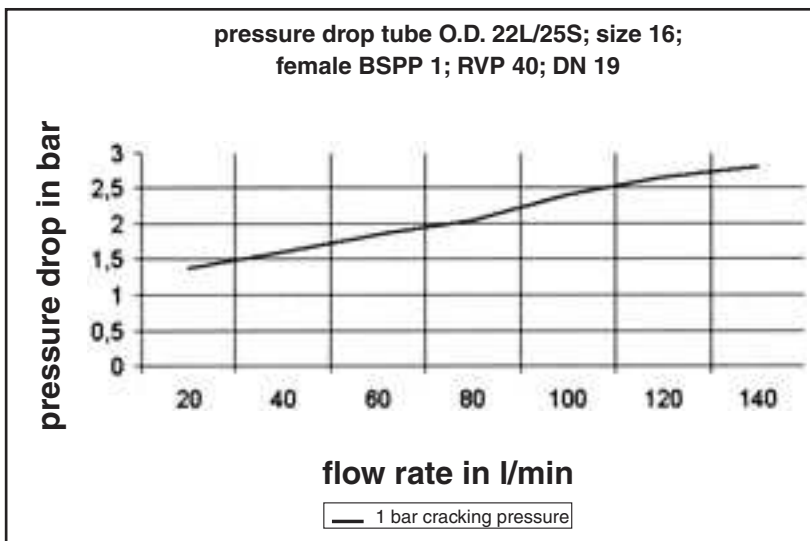




In all diagrams is the peak value of the flow rate in l/min. relating to the maximum permissible flow velocity of 8 m/sec.

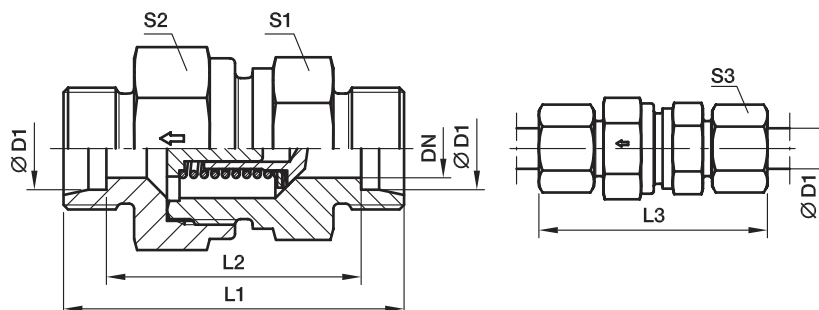


In all diagrams is the peak value of the flow rate in l/min. relating to the maximum permissible flow velocity of 8 m/sec.



## RHD Non return valve

EO 24° cone end / EO 24° cone end



| Series          | D1<br> | CF<br>DN | 71<br>DN | CF<br>L1 | 71<br>L1 | L2   | L3    | S1 | CF<br>S2 | 71<br>S2 | S3 | Weight<br>g/1 piece | Order code* | PN (bar) <sup>1)</sup> |     |
|-----------------|--------|----------|----------|----------|----------|------|-------|----|----------|----------|----|---------------------|-------------|------------------------|-----|
|                 |        |          |          |          |          |      |       |    |          |          |    |                     |             | CF                     | 71  |
| L <sup>3)</sup> | 06     | 3.5      | 3.5      | 43.0     | 43.0     | 29.0 | 58.0  | 17 | 17       | 17       | 14 | 46                  | RHD06LOMD   | 400                    | 250 |
|                 | 08     | 5.5      | 5.5      | 44.0     | 44.9     | 30.0 | 59.0  | 19 | 19       | 19       | 17 | 61                  | RHD08LOMD   | 400                    | 250 |
|                 | 10     | 7.5      | 7.5      | 55.0     | 54.5     | 40.5 | 69.5  | 22 | 24       | 24       | 19 | 104                 | RHD10LOMD   | 400                    | 250 |
|                 | 12     | 9.5      | 9.5      | 58.0     | 57.5     | 43.5 | 72.5  | 27 | 30       | 30       | 22 | 166                 | RHD12LOMD   | 400                    | 250 |
|                 | 15     | 11.0     | 11.5     | 62.0     | 61.5     | 47.5 | 77.5  | 27 | 32       | 32       | 27 | 192                 | RHD15LOMD   | 400                    | 250 |
|                 | 18     | 14.0     | 14.0     | 67.0     | 66.5     | 51.5 | 83.5  | 36 | 41       | 36       | 32 | 292                 | RHD18LOMD   | 400                    | 160 |
|                 | 22     | 18.0     | 18.0     | 77.0     | 76.5     | 61.5 | 93.5  | 41 | 46       | 46       | 36 | 472                 | RHD22LOMD   | 250                    | 160 |
|                 | 28     | 23.0     | 23.0     | 85.0     | 84.5     | 69.5 | 102.5 | 50 | 55       | 55       | 41 | 746                 | RHD28LOMD   | 250                    | 100 |
|                 | 35     | 29.0     | 29.0     | 96.0     | 95.5     | 74.5 | 117.5 | 60 | 65       | 60       | 50 | 1062                | RHD35LOMD   | 250                    | 100 |
|                 | 42     | 29.0     | 29.0     | 96.0     | 96.0     | 74.0 | 119.0 | 65 | 70       | 70       | 60 | 1518                | RHD42LOMD   | 250                    | 100 |
| S <sup>4)</sup> | 06     | 3.5      | 3.5      | 48.5     | 48.5     | 34.5 | 63.5  | 19 | 19       | 19       | 17 | 70                  | RHD06SOMD   | 420                    | 400 |
|                 | 08     | 3.5      | 3.5      | 48.5     | 48.5     | 34.5 | 63.5  | 19 | 19       | 19       | 19 | 74                  | RHD08SOMD   | 420                    | 400 |
|                 | 10     | 5.5      | 5.5      | 55.5     | 55.5     | 40.5 | 72.5  | 22 | 24       | 24       | 22 | 121                 | RHD10SOMD   | 420                    | 400 |
|                 | 12     | 7.5      | 7.5      | 57.5     | 57.5     | 42.5 | 74.5  | 24 | 27       | 27       | 24 | 148                 | RHD12SOMD   | 420                    | 400 |
|                 | 14     | 9.5      | 9.5      | 64.0     | 63.5     | 47.5 | 82.5  | 27 | 32       | 32       | 27 | 218                 | RHD14SOMD   | 420                    | 315 |
|                 | 16     | 11.0     | 11.5     | 68.0     | 67.5     | 50.5 | 86.5  | 32 | 36       | 36       | 30 | 286                 | RHD16SOMD   | 420                    | 315 |
|                 | 20     | 15.0     | 15.0     | 76.0     | 75.5     | 54.5 | 97.5  | 41 | 50       | 46       | 36 | 506                 | RHD20SOMD   | 420                    | 250 |
|                 | 25     | 19.0     | 19.0     | 83.0     | 82.5     | 58.5 | 106.5 | 46 | 55       | 50       | 46 | 639                 | RHD25SOMD   | 420                    | 250 |
|                 | 30     | 24.0     | 24.0     | 97.0     | 96.5     | 69.5 | 122.5 | 60 | 60       | 60       | 50 | 1157                | RHD30SOMD   | 250                    | 250 |
|                 | 38     | 29.0     | 29.0     | 108.0    | 107.5    | 75.5 | 136.5 | 65 | 70       | 70       | 60 | 1650                | RHD38SOMD   | 250                    | 250 |

<sup>1)</sup> Pressure shown = item deliverable

<sup>3)</sup> L = light series; <sup>4)</sup> S = heavy series

$\frac{PN \text{ (bar)}}{10} = PN \text{ (MPa)}$

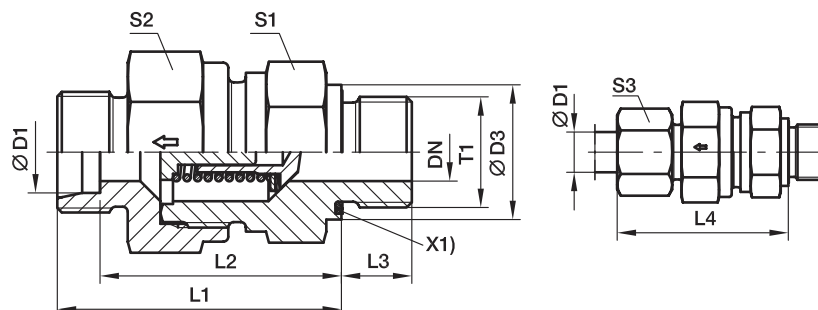
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

\*Please add the **suffixes** below according to the material/ surface required.

| Order code suffixes             |                             |             |                                                         |
|---------------------------------|-----------------------------|-------------|---------------------------------------------------------|
| Material                        | Suffix surface and material | Example     | Standard sealing material (no additional suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                          | RHD06LOMDCF | NBR                                                     |
| Stainless steel                 | 71                          | RHD06LOMD71 | VIT                                                     |

## RHV-R-ED Non return valve

EO 24° cone end / Male BSPP thread – ED-seal (ISO 1179)



X1) Elastic sealing

| Series          | D1 | T1        | CF<br>DN | 71<br>DN | D3 | CF<br>L1 | 71<br>L1 | L2   | L3 | L4    | S1 | CF<br>S2 | 71<br>S2 | S3 | Weight<br>g/1 piece | Order code*  | PN (bar) <sup>1)</sup> |     |
|-----------------|----|-----------|----------|----------|----|----------|----------|------|----|-------|----|----------|----------|----|---------------------|--------------|------------------------|-----|
|                 |    |           |          |          |    |          |          |      |    |       |    |          |          |    |                     |              | CF                     | 71  |
| L <sup>3)</sup> | 06 | G 1/8 A   | 3.5      | 3.5      | 14 | 35.0     | 35.0     | 28.0 | 8  | 42.5  | 17 | 17       | 17       | 14 | 47                  | RHV06LREDOMD | 400                    | 250 |
|                 | 08 | G 1/4 A   | 5.5      | 5.5      | 19 | 37.0     | 37.0     | 30.0 | 12 | 44.5  | 19 | 19       | 19       | 17 | 62                  | RHV08LREDOMD | 400                    | 250 |
|                 | 10 | G 1/4 A   | 7.5      | 7.5      | 19 | 46.0     | 45.5     | 38.5 | 12 | 53.0  | 22 | 24       | 24       | 19 | 105                 | RHV10LREDOMD | 400                    | 250 |
|                 | 12 | G 3/8 A   | 9.5      | 9.5      | 22 | 50.0     | 49.5     | 42.5 | 12 | 57.0  | 27 | 30       | 30       | 22 | 175                 | RHV12LREDOMD | 400                    | 250 |
|                 | 15 | G 1/2 A   | 11.0     | 11.5     | 27 | 53.0     | 52.5     | 45.5 | 14 | 60.5  | 27 | 32       | 32       | 27 | 205                 | RHV15LREDOMD | 400                    | 250 |
|                 | 18 | G 1/2 A   | 14.0     | 14.0     | 27 | 58.0     | 57.5     | 50.0 | 14 | 66.0  | 36 | 41       | 36       | 32 | 294                 | RHV18LREDOMD | 400                    | 160 |
|                 | 22 | G 3/4 A   | 18.0     | 18.0     | 32 | 63.0     | 62.5     | 55.0 | 16 | 71.0  | 41 | 46       | 46       | 36 | 450                 | RHV22LREDOMD | 250                    | 160 |
|                 | 28 | G 1 A     | 23.0     | 23.0     | 40 | 71.0     | 70.5     | 63.0 | 18 | 79.5  | 50 | 55       | 55       | 41 | 720                 | RHV28LREDOMD | 250                    | 100 |
|                 | 35 | G 1 1/4 A | 29.0     | 29.0     | 50 | 80.0     | 79.5     | 69.0 | 20 | 90.5  | 60 | 65       | 60       | 50 | 1050                | RHV35LREDOMD | 250                    | 100 |
|                 | 42 | G 1 1/2 A | 29.0     | 29.0     | 55 | 80.0     | 79.5     | 68.5 | 22 | 91.0  | 65 | 70       | 70       | 60 | 1560                | RHV42LREDOMD | 250                    | 100 |
| S <sup>4)</sup> | 06 | G 1/4 A   | 3.5      | 3.5      | 19 | 38.5     | 38.5     | 31.5 | 12 | 46.0  | 19 | 19       | 19       | 17 | 73                  | RHV06SREDOMD | 420                    | 400 |
|                 | 08 | G 1/4 A   | 3.5      | 3.5      | 19 | 38.5     | 38.5     | 31.5 | 12 | 46.0  | 19 | 19       | 19       | 19 | 79                  | RHV08SREDOMD | 420                    | 400 |
|                 | 10 | G 3/8 A   | 5.5      | 5.5      | 22 | 45.5     | 45.5     | 38.0 | 12 | 54.0  | 22 | 24       | 24       | 22 | 132                 | RHV10SREDOMD | 420                    | 400 |
|                 | 12 | G 3/8 A   | 7.5      | 7.5      | 22 | 48.5     | 48.5     | 41.0 | 12 | 57.0  | 24 | 27       | 27       | 24 | 153                 | RHV12SREDOMD | 420                    | 400 |
|                 | 14 | G 1/2 A   | 9.5      | 9.5      | 27 | 53.0     | 52.5     | 44.5 | 14 | 62.0  | 27 | 32       | 32       | 27 | 230                 | RHV14SREDOMD | 420                    | 315 |
|                 | 16 | G 1/2 A   | 11.0     | 11.5     | 27 | 57.0     | 56.5     | 48.0 | 14 | 66.0  | 32 | 36       | 36       | 30 | 293                 | RHV16SREDOMD | 420                    | 315 |
|                 | 20 | G 3/4 A   | 15.0     | 15.0     | 32 | 63.0     | 62.5     | 52.0 | 16 | 73.5  | 41 | 50       | 46       | 36 | 511                 | RHV20SREDOMD | 420                    | 250 |
|                 | 25 | G 1 A     | 19.0     | 19.0     | 40 | 67.0     | 66.5     | 54.5 | 18 | 78.5  | 46 | 55       | 50       | 46 | 648                 | RHV25SREDOMD | 420                    | 250 |
|                 | 30 | G 1 1/4 A | 24.0     | 24.0     | 50 | 78.0     | 77.5     | 64.0 | 20 | 90.5  | 60 | 60       | 60       | 50 | 1176                | RHV30SREDOMD | 250                    | 250 |
|                 | 38 | G 1 1/2 A | 29.0     | 29.0     | 55 | 86.0     | 85.5     | 69.5 | 22 | 100.0 | 65 | 70       | 70       | 60 | 1624                | RHV38SREDOMD | 250                    | 250 |

<sup>1)</sup> Pressure shown = item deliverable

<sup>3)</sup> L = light series; <sup>4)</sup> S = heavy series

$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$

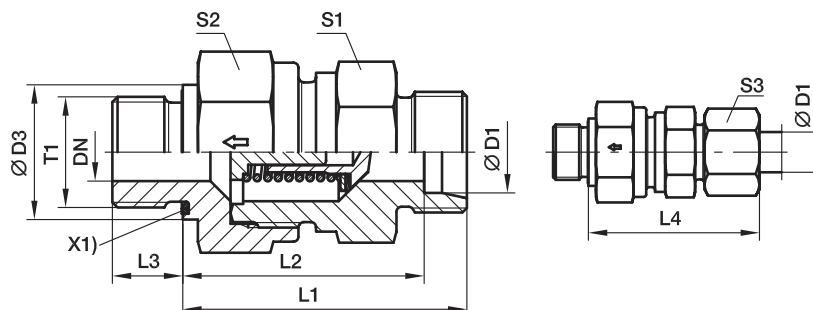
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page I7.

\*Please add the **suffixes** below according to the material/surface required.

| Order code suffixes             |                             |                |                                                         |
|---------------------------------|-----------------------------|----------------|---------------------------------------------------------|
| Material                        | Suffix surface and material | Example        | Standard sealing material (no additional suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                          | RHV06LREDOMDCF | NBR                                                     |
| Stainless steel                 | 71                          | RHV06LREDOMD71 | VIT                                                     |

## RHZ-R-ED Non return valve

Male BSPP thread – ED-seal (ISO 1179) / EO 24° cone end



X1) Eolastic sealing

| Series          | D1 | T1        | CF<br>DN | 71<br>DN | D3 | CF<br>L1 | 71<br>L1 | L2   | L3 | L4    | S1 | CF<br>S2 | 71<br>S2 | S3 | Weight<br>g/1 piece | Order code*  | PN (bar) <sup>1)</sup> |     |
|-----------------|----|-----------|----------|----------|----|----------|----------|------|----|-------|----|----------|----------|----|---------------------|--------------|------------------------|-----|
|                 |    |           |          |          |    |          |          |      |    |       |    |          |          |    |                     |              | CF                     | 71  |
| L <sup>3)</sup> | 06 | G 1/8 A   | 3.5      | 3.5      | 14 | 33.5     | —        | 26.5 | 8  | 41.0  | 17 | 17       | 17       | 14 | 44                  | RHZ06LREDOMD | 400                    | 250 |
|                 | 08 | G 1/4 A   | 5.5      | 5.5      | 19 | 35.5     | —        | 28.5 | 12 | 43.0  | 19 | 19       | 19       | 17 | 59                  | RHZ08LREDOMD | 400                    | 250 |
|                 | 10 | G 1/4 A   | 7.5      | 7.5      | 19 | 46.0     | —        | 38.5 | 12 | 53.0  | 22 | 24       | 24       | 19 | 125                 | RHZ10LREDOMD | 400                    | 250 |
|                 | 12 | G 3/8 A   | 9.5      | 9.5      | 22 | 48.0     | —        | 40.5 | 12 | 55.0  | 27 | 30       | 30       | 22 | 161                 | RHZ12LREDOMD | 400                    | 250 |
|                 | 15 | G 1/2 A   | 11.0     | 11.5     | 27 | 50.0     | —        | 42.5 | 14 | 57.5  | 27 | 32       | 32       | 27 | 186                 | RHZ15LREDOMD | 400                    | 250 |
|                 | 18 | G 1/2 A   | 14.0     | 14.0     | 27 | 56.0     | —        | 48.0 | 14 | 64.0  | 36 | 41       | 36       | 32 | 275                 | RHZ18LREDOMD | 400                    | 160 |
|                 | 22 | G 3/4 A   | 18.0     | 18.0     | 32 | 64.0     | —        | 56.0 | 16 | 72.0  | 41 | 46       | 46       | 36 | 463                 | RHZ22LREDOMD | 250                    | 160 |
|                 | 28 | G 1 A     | 23.0     | 23.0     | 40 | 72.0     | —        | 64.0 | 18 | 80.5  | 50 | 55       | 55       | 41 | 721                 | RHZ28LREDOMD | 250                    | 100 |
|                 | 35 | G 1 1/4 A | 29.0     | 29.0     | 50 | 81.0     | —        | 70.0 | 20 | 91.5  | 60 | 65       | 60       | 50 | 1073                | RHZ35LREDOMD | 250                    | 100 |
|                 | 42 | G 1 1/2 A | 29.0     | 29.0     | 55 | 82.0     | —        | 70.5 | 22 | 93.0  | 65 | 70       | 70       | 60 | 1602                | RHZ42LREDOMD | 250                    | 100 |
| S <sup>4)</sup> | 06 | G 1/4 A   | 3.5      | 3.5      | 19 | 38.5     | —        | 31.5 | 12 | 46.0  | 19 | 19       | 19       | 17 | 71                  | RHZ06SREDOMD | 420                    | 400 |
|                 | 08 | G 1/4 A   | 3.5      | 3.5      | 19 | 38.5     | —        | 31.5 | 12 | 46.0  | 19 | 19       | 19       | 19 | 74                  | RHZ08SREDOMD | 420                    | 400 |
|                 | 10 | G 3/8 A   | 5.5      | 5.5      | 22 | 45.5     | —        | 38.0 | 12 | 54.0  | 22 | 24       | 24       | 22 | 128                 | RHZ10SREDOMD | 420                    | 400 |
|                 | 12 | G 3/8 A   | 7.5      | 7.5      | 22 | 48.5     | —        | 41.0 | 12 | 57.0  | 24 | 27       | 27       | 24 | 152                 | RHZ12SREDOMD | 420                    | 400 |
|                 | 14 | G 1/2 A   | 9.5      | 9.5      | 27 | 52.0     | —        | 43.5 | 14 | 61.0  | 27 | 32       | 32       | 27 | 223                 | RHZ14SREDOMD | 420                    | 315 |
|                 | 16 | G 1/2 A   | 11.0     | 11.5     | 27 | 55.0     | —        | 46.0 | 14 | 64.0  | 32 | 36       | 36       | 30 | 275                 | RHZ16SREDOMD | 420                    | 315 |
|                 | 20 | G 3/4 A   | 15.0     | 15.0     | 32 | 61.0     | —        | 50.0 | 16 | 71.5  | 41 | 50       | 46       | 36 | 490                 | RHZ20SREDOMD | 420                    | 250 |
|                 | 25 | G 1 A     | 19.0     | 19.0     | 40 | 67.0     | —        | 54.5 | 18 | 78.5  | 50 | 55       | 50       | 46 | 647                 | RHZ25SREDOMD | 420                    | 250 |
|                 | 30 | G 1 1/4 A | 24.0     | 24.0     | 50 | 78.0     | —        | 64.0 | 20 | 90.5  | 55 | 60       | 60       | 50 | 1180                | RHZ30SREDOMD | 250                    | 250 |
|                 | 38 | G 1 1/2 A | 29.0     | 29.0     | 55 | 88.0     | —        | 71.5 | 22 | 102.0 | 65 | 70       | 70       | 60 | 1670                | RHZ38SREDOMD | 250                    | 250 |

<sup>1)</sup> Pressure shown = item deliverable

<sup>3)</sup> L = light series; <sup>4)</sup> S = heavy series

$\frac{PN (bar)}{10} = PN (MPa)$

Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page I7.

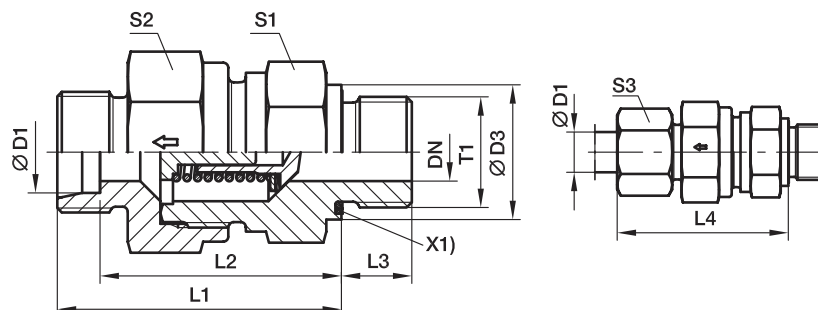
\*Please add the **suffixes** below according to the material/surface required.

| Order code suffixes             |                             |                |                                                         |
|---------------------------------|-----------------------------|----------------|---------------------------------------------------------|
| Material                        | Suffix surface and material | Example        | Standard sealing material (no additional suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                          | RHZ06LREDOMDCF | NBR                                                     |
| Stainless steel                 | 71                          | RHZ06LREDOMD71 | VIT                                                     |



## RHV-M-ED Non return valve

EO 24° cone end / Male metric thread – ED-seal (ISO 9974)



X1) Elastic sealing

| Series          | D1 | T1       | CF<br>DN | 71<br>DN | D3 | CF<br>L1 | 71<br>L1 | L2   | L3 | L4    | S1 | CF<br>S2 | 71<br>S2 | S3 | Weight<br>g/1 piece | Order code*  | PN (bar) <sup>1)</sup> |     |
|-----------------|----|----------|----------|----------|----|----------|----------|------|----|-------|----|----------|----------|----|---------------------|--------------|------------------------|-----|
|                 |    |          |          |          |    |          |          |      |    |       |    |          |          |    |                     |              | CF                     | 71  |
| L <sup>3)</sup> | 06 | M 10×1.0 | 3.5      | 3.5      | 14 | 35.0     | —        | 28.0 | 8  | 42.5  | 17 | 17       | 17       | 14 | 46                  | RHV06LMEDOMD | 400                    | 250 |
|                 | 08 | M 12×1.5 | 5.5      | 5.5      | 17 | 36.0     | —        | 29.0 | 12 | 43.5  | 19 | 19       | 19       | 17 | 58                  | RHV08LMEDOMD | 400                    | 250 |
|                 | 10 | M 14×1.5 | 7.5      | 7.5      | 19 | 45.5     | —        | 38.5 | 12 | 53.0  | 22 | 24       | 34       | 19 | 108                 | RHV10LMEDOMD | 400                    | 250 |
|                 | 12 | M 16×1.5 | 9.5      | 9.5      | 22 | 49.5     | —        | 42.5 | 12 | 57.0  | 27 | 30       | 30       | 22 | 173                 | RHV12LMEDOMD | 400                    | 250 |
|                 | 15 | M 18×1.5 | 11.0     | 11.5     | 24 | 52.5     | —        | 45.5 | 12 | 60.5  | 27 | 32       | 32       | 27 | 192                 | RHV15LMEDOMD | 400                    | 250 |
|                 | 18 | M 22×1.5 | 14.0     | 14.0     | 27 | 56.0     | —        | 50.0 | 14 | 66.0  | 36 | 41       | 36       | 32 | 298                 | RHV18LMEDOMD | 400                    | 160 |
|                 | 22 | M 26×1.5 | 18.0     | 18.0     | 32 | 64.0     | —        | 55.0 | 16 | 71.0  | 41 | 46       | 46       | 36 | 446                 | RHV22LMEDOMD | 250                    | 160 |
|                 | 28 | M 33×2.0 | 23.0     | 23.0     | 40 | 72.0     | —        | 63.0 | 18 | 79.5  | 50 | 55       | 55       | 41 | 722                 | RHV28LMEDOMD | 250                    | 100 |
|                 | 35 | M 42×2.0 | 29.0     | 29.0     | 50 | 81.0     | —        | 69.0 | 20 | 90.5  | 60 | 65       | 60       | 50 | 1053                | RHV35LMEDOMD | 250                    | 100 |
|                 | 42 | M 48×2.0 | 29.0     | 29.0     | 55 | 82.0     | —        | 68.5 | 22 | 91.0  | 65 | 70       | 70       | 60 | 1563                | RHV42LMEDOMD | 250                    | 100 |
| S <sup>4)</sup> | 06 | M 12×1.5 | 3.5      | 3.5      | 17 | 38.5     | —        | 31.5 | 12 | 46.0  | 19 | 19       | 19       | 17 | 70                  | RHV06SMEDOMD | 420                    | 400 |
|                 | 08 | M 14×1.5 | 3.5      | 3.5      | 19 | 38.5     | —        | 31.5 | 12 | 46.0  | 19 | 19       | 19       | 19 | 76                  | RHV08SMEDOMD | 420                    | 400 |
|                 | 10 | M 16×1.5 | 5.5      | 5.5      | 22 | 45.5     | —        | 38.0 | 12 | 54.0  | 22 | 24       | 24       | 22 | 124                 | RHV10SMEDOMD | 420                    | 400 |
|                 | 12 | M 18×1.5 | 7.5      | 7.5      | 24 | 48.5     | —        | 41.0 | 12 | 57.0  | 24 | 27       | 27       | 24 | 157                 | RHV12SMEDOMD | 420                    | 400 |
|                 | 14 | M 20×1.5 | 9.5      | 9.5      | 26 | 52.5     | —        | 44.5 | 14 | 62.0  | 27 | 32       | 32       | 27 | 215                 | RHV14SMEDOMD | 420                    | 315 |
|                 | 16 | M 22×1.5 | 11.0     | 11.5     | 27 | 55.0     | —        | 48.0 | 14 | 66.0  | 32 | 36       | 36       | 30 | 296                 | RHV16SMEDOMD | 420                    | 315 |
|                 | 20 | M 27×2.0 | 15.0     | 15.0     | 32 | 61.0     | —        | 52.0 | 16 | 73.5  | 41 | 50       | 46       | 36 | 521                 | RHV20SMEDOMD | 420                    | 250 |
|                 | 25 | M 33×2.0 | 19.0     | 19.0     | 40 | 67.0     | —        | 54.5 | 18 | 78.5  | 46 | 55       | 50       | 46 | 648                 | RHV25SMEDOMD | 420                    | 250 |
|                 | 30 | M 42×2.0 | 24.0     | 24.0     | 50 | 78.0     | —        | 64.0 | 20 | 90.5  | 60 | 60       | 60       | 50 | 1178                | RHV30SMEDOMD | 250                    | 250 |
|                 | 38 | M 48×2.0 | 29.0     | 29.0     | 55 | 88.0     | —        | 69.5 | 22 | 100.0 | 65 | 70       | 70       | 60 | 1627                | RHV38SMEDOMD | 250                    | 250 |

<sup>1)</sup> Pressure shown = item deliverable

<sup>3)</sup> L = light series; <sup>4)</sup> S = heavy series

$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$

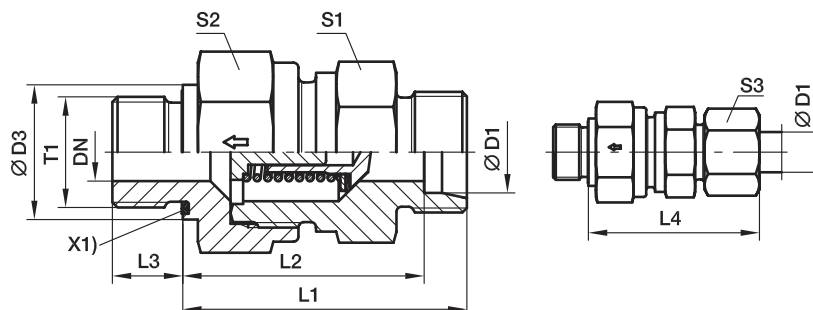
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page I7.

\*Please add the **suffixes** below according to the material/surface required.

| Order code suffixes             |                             |                |                                                         |
|---------------------------------|-----------------------------|----------------|---------------------------------------------------------|
| Material                        | Suffix surface and material | Example        | Standard sealing material (no additional suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                          | RHV06LMEDOMDCF | NBR                                                     |
| Stainless steel                 | 71                          | RHV06LMEDOMD71 | VIT                                                     |

## RHZ-M-ED Non return valve

Male metric thread – ED-seal (ISO 9974) / EO 24° cone end



X1) Eolastic sealing

| Series          | D1 | T1       | DN   | D3 | L1   | L2   | L3 | L4    | S1 | S2 | S3 | Weight<br>g/1 piece | Order code*  | PN (bar) <sup>1)</sup> |     |
|-----------------|----|----------|------|----|------|------|----|-------|----|----|----|---------------------|--------------|------------------------|-----|
|                 |    |          |      |    |      |      |    |       |    |    |    |                     |              | CF                     | 71  |
| L <sup>3)</sup> | 06 | M 10×1.0 | 3.5  | 14 | 33.5 | 26.5 | 8  | 41.0  | 17 | 17 | 14 | 44                  | RHZ06LMEDOMD | 400                    | 250 |
|                 | 08 | M 12×1.5 | 5.5  | 17 | 35.5 | 28.5 | 12 | 43.0  | 19 | 19 | 17 | 58                  | RHZ08LMEDOMD | 400                    | 250 |
|                 | 10 | M 14×1.5 | 7.5  | 19 | 45.5 | 38.5 | 12 | 53.0  | 22 | 24 | 19 | 104                 | RHZ10LMEDOMD | 400                    | 250 |
|                 | 12 | M 16×1.5 | 9.5  | 22 | 47.5 | 40.5 | 12 | 55.0  | 27 | 30 | 22 | 169                 | RHZ12LMEDOMD | 400                    | 250 |
|                 | 15 | M 18×1.5 | 11.5 | 24 | 49.5 | 42.5 | 12 | 57.5  | 27 | 32 | 27 | 174                 | RHZ15LMEDOMD | 400                    | 250 |
|                 | 18 | M 22×1.5 | 14.0 | 27 | 55.5 | 48.0 | 14 | 64.0  | 36 | 41 | 32 | 279                 | RHZ18LMEDOMD | 400                    | 160 |
|                 | 22 | M 26×1.5 | 18.0 | 32 | 63.5 | 56.0 | 16 | 72.0  | 41 | 46 | 36 | 459                 | RHZ22LMEDOMD | 250                    | 160 |
|                 | 28 | M 33×2.0 | 23.0 | 40 | 71.5 | 64.0 | 18 | 80.5  | 50 | 55 | 41 | 721                 | RHZ28LMEDOMD | 250                    | 100 |
|                 | 35 | M 42×2.0 | 29.0 | 50 | 80.5 | 70.0 | 20 | 91.5  | 60 | 65 | 50 | 1078                | RHZ35LMEDOMD | 250                    | 100 |
|                 | 42 | M 48×2.0 | 29.0 | 55 | 81.5 | 70.5 | 22 | 93.0  | 65 | 70 | 60 | 1601                | RHZ42LMEDOMD | 250                    | 100 |
| S <sup>4)</sup> | 06 | M 12×1.5 | 3.5  | 17 | 38.5 | 31.5 | 12 | 46.0  | 19 | 19 | 17 | 70                  | RHZ06SMEDOMD | 420                    | 400 |
|                 | 08 | M 14×1.5 | 3.5  | 19 | 38.5 | 31.5 | 12 | 46.0  | 19 | 19 | 19 | 75                  | RHZ08SMEDOMD | 420                    | 400 |
|                 | 10 | M 16×1.5 | 5.5  | 22 | 45.5 | 38.0 | 12 | 54.0  | 22 | 24 | 22 | 123                 | RHZ10SMEDOMD | 420                    | 400 |
|                 | 12 | M 18×1.5 | 7.5  | 24 | 48.5 | 41.0 | 12 | 57.0  | 24 | 27 | 24 | 157                 | RHZ12SMEDOMD | 420                    | 400 |
|                 | 14 | M 20×1.5 | 9.5  | 26 | 51.5 | 43.5 | 14 | 61.0  | 27 | 32 | 27 | 214                 | RHZ14SMEDOMD | 420                    | 315 |
|                 | 16 | M 22×1.5 | 11.5 | 27 | 54.5 | 46.0 | 14 | 64.0  | 32 | 36 | 30 | 279                 | RHZ16SMEDOMD | 420                    | 315 |
|                 | 20 | M 27×2.0 | 15.0 | 32 | 60.5 | 50.0 | 16 | 71.5  | 41 | 50 | 36 | 487                 | RHZ20SMEDOMD | 420                    | 250 |
|                 | 25 | M 33×2.0 | 19.0 | 40 | 68.0 | 54.5 | 18 | 78.5  | 46 | 55 | 46 | 647                 | RHZ25SMEDOMD | 420                    | 250 |
|                 | 30 | M 42×2.0 | 24.0 | 50 | 77.5 | 64.0 | 20 | 90.5  | 60 | 60 | 50 | 1180                | RHZ30SMEDOMD | 250                    | 250 |
|                 | 38 | M 48×2.0 | 29.0 | 55 | 87.5 | 71.5 | 22 | 102.0 | 65 | 70 | 60 | 1669                | RHZ38SMEDOMD | 250                    | 250 |

<sup>1)</sup> Pressure shown = item deliverable

<sup>3)</sup> L = light series; <sup>4)</sup> S = heavy series

$\frac{PN \text{ (bar)}}{10} = PN \text{ (MPa)}$

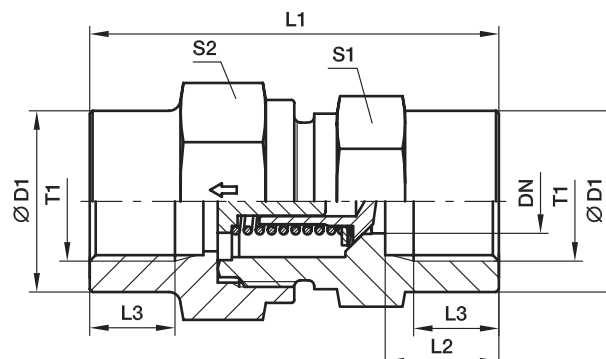
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page I7.

\*Please add the **suffixes** below according to the material/ surface required.

| Order code suffixes             |                             |                |                                                         |
|---------------------------------|-----------------------------|----------------|---------------------------------------------------------|
| Material                        | Suffix surface and material | Example        | Standard sealing material (no additional suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                          | RHZ06LMEDOMDCF | NBR                                                     |
| Stainless steel                 | 71                          | RHZ06LMEDOMD71 | VIT                                                     |

## RHDI Non return valve

Female BSPP thread (ISO 1179-1) / Female BSPP thread (ISO 1179-1)



| Series          | T1      | DN   | D1 | L1    | L2   | L3   | S1 | S2 | Weight<br>g/1 piece | Order code*     | PN (bar) <sup>1)</sup> |     |
|-----------------|---------|------|----|-------|------|------|----|----|---------------------|-----------------|------------------------|-----|
|                 |         |      |    |       |      |      |    |    |                     |                 | CF                     | 71  |
| L <sup>3)</sup> | G 1/8   | 3.5  | 19 | 42.5  | 12.0 | 8.0  | 19 | 19 | 76                  | <b>RHDI1/8</b>  | 400                    | 400 |
|                 | G 1/4   | 3.5  | 19 | 51.0  | 16.0 | 12.0 | 19 | 19 | 82                  | <b>RHDI1/4</b>  | 400                    | 400 |
|                 | G 3/8   | 7.5  | 24 | 60.0  | 17.0 | 12.0 | 24 | 27 | 157                 | <b>RHDI3/8</b>  | 400                    | 400 |
|                 | G 1/2   | 11.5 | 32 | 72.0  | 20.0 | 15.0 | 32 | 36 | 344                 | <b>RHDI1/2</b>  | 315                    | 315 |
|                 | G 3/4   | 15.0 | 41 | 84.0  | 22.0 | 16.5 | 41 | 46 | 664                 | <b>RHDI3/4</b>  | 250                    | 250 |
|                 | G 1     | 19.0 | 46 | 95.0  | 25.5 | 19.0 | 46 | 50 | 821                 | <b>RHDI1</b>    | 250                    | 250 |
|                 | G 1 1/4 | 24.0 | 60 | 110.0 | 28.0 | 21.5 | 60 | 60 | 1581                | <b>RHDI11/4</b> | 250                    | 250 |
|                 | G 1 1/2 | 29.0 | 65 | 114.0 | 28.5 | 22.0 | 65 | 70 | 1919                | <b>RHDI11/2</b> | 250                    | 250 |

<sup>1)</sup> Pressure shown = item deliverable

<sup>3)</sup> L = light series

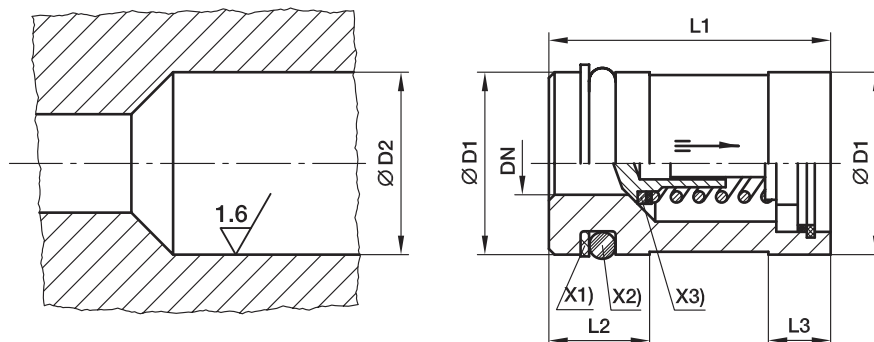
$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$

Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page I7.

\*Please add the **suffixes** below according to the material/surface required.

| Order code suffixes             |                             |           |                                                         |
|---------------------------------|-----------------------------|-----------|---------------------------------------------------------|
| Material                        | Suffix surface and material | Example   | Standard sealing material (no additional suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                          | RHDI1/8CF | NBR                                                     |
| Stainless steel                 | 71                          | RHDI1/871 | VIT                                                     |

## RVP Non return valve cartridge



X1) Supporting ring PTFE

X2) O-ring NBR

X3) Sealing disc NBR

| Valve<br>ITL | DN   | D1             | D2                              | L1<br>± 0,15 | L2   | L3   | O-ring   | Supporting ring | Weight<br>g/1 piece | Order code*  | PN (bar) <sup>1)</sup> |     |
|--------------|------|----------------|---------------------------------|--------------|------|------|----------|-----------------|---------------------|--------------|------------------------|-----|
|              |      |                |                                 |              |      |      |          |                 |                     |              | CF                     | 71  |
| 6-L/6 & 8-S  | 3.5  | 12.945 ± 0.055 | 13 <sup>+0.12<br/>+0.05</sup>   | 23.15        | 9.5  | 6.0  | 8.3×2.4  | SRA 13-2.05-1.0 | 21                  | <b>RVP13</b> | 420                    | 400 |
| 8-L/10-S     | 5.5  | 15.945 ± 0.055 | 16 <sup>+0.12<br/>+0.05</sup>   | 26.65        | 9.5  | 6.5  | 11.3×2.4 | SRA 16-2.05-1.0 | 32                  | <b>RVP16</b> | 420                    | 400 |
| 10-L/12-S    | 7.5  | 19.935 ± 0.065 | 20 <sup>+0.142<br/>+0.065</sup> | 30.15        | 9.5  | 6.5  | 15.3×2.4 | SRA 20-2.05-1.0 | 54                  | <b>RVP20</b> | 420                    | 400 |
| 12-L/14-S    | 9.5  | 23.935 ± 0.065 | 24 <sup>+0.149<br/>+0.065</sup> | 35.15        | 12.0 | 7.5  | 18.2×3   | SRA 24-2.6-1.0  | 80                  | <b>RVP24</b> | 420                    | 315 |
| 15-L/16-S    | 11.5 | 26.935 ± 0.065 | 27 <sup>+0.149<br/>+0.065</sup> | 38.15        | 12.0 | 7.5  | 21.2×3   | SRA 27-2.6-1.0  | 105                 | <b>RVP27</b> | 420                    | 315 |
| 18-L/20-S    | 15.0 | 34.92 ± 0.08   | 35 <sup>+0.18<br/>+0.08</sup>   | 44.65        | 12.0 | 9.5  | 29.2×3   | SRA 35-2.5-1.0  | 204                 | <b>RVP35</b> | 420                    | 250 |
| 22-L/25-S    | 19.0 | 39.92 ± 0.08   | 40 <sup>+0.18<br/>+0.08</sup>   | 50.65        | 12.0 | 11.0 | 34.2×3   | SRA 40-2.5-1.0  | 275                 | <b>RVP40</b> | 420                    | 250 |
| 28-L/30-S    | 24.0 | 46.92 ± 0.08   | 47 <sup>+0.18<br/>+0.08</sup>   | 60.15        | 13.0 | 13.0 | 41.2×3   | SRA 47-2.6-1.5  | 412                 | <b>RVP47</b> | 250                    | 250 |
| 35-L/38-S    | 29.0 | 54.905 ± 0.095 | 55 <sup>+0.22<br/>+0.01</sup>   | 70.15        | 16.0 | 13.0 | 44.2×5.7 | SRA 55-5.1-1.5  | 607                 | <b>RVP55</b> | 250                    | 250 |

<sup>1)</sup> Pressure shown = item deliverable

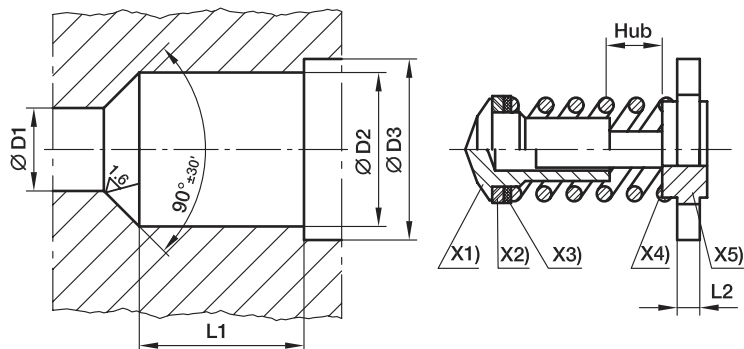
$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

\*Please add the **suffixes** below according to the material/surface required.

| Order code suffixes             |                             |         |                                                         |
|---------------------------------|-----------------------------|---------|---------------------------------------------------------|
| Material                        | Suffix surface and material | Example | Standard sealing material (no additional suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                          | RVP13CF | NBR                                                     |
| Stainless steel                 | 71                          | RVP1371 | VIT                                                     |

## I-TL Internal parts of non return valve



X1) poppet

X2) sealing disc (smooth side to the poppet)

X3) cover disc

X4) spring

X5) passage disc

| Series | Tube<br>O.D. | D1 <sup>+0.1</sup> | D2 <sup>+0.1</sup> | D3 <sup>+0.1</sup> | L1 <sup>±0.1</sup> | L2  | Hub | Weight<br>g/1 piece | Order code*    | PN (bar) <sup>1)</sup> |    |
|--------|--------------|--------------------|--------------------|--------------------|--------------------|-----|-----|---------------------|----------------|------------------------|----|
|        |              |                    |                    |                    |                    |     |     |                     |                | CF                     | 71 |
| L/S/S  | 06/06/08     | 3.5                | 7.5                | 8.6                | 8.2                | 2.0 | 1.0 | 2                   | ITL06L/06+08S  | *                      | *  |
| L/S    | 08/10        | 5.5                | 10.2               | 11.6               | 11.0               | 2.0 | 1.7 | 4                   | ITL08L/10S     | *                      | *  |
| L/S    | 10/12        | 7.5                | 13.0               | 14.1               | 14.0               | 2.0 | 2.3 | 7                   | ITL10L/12S     | *                      | *  |
| L/S    | 12/14        | 9.5                | 16.7               | 18.1               | 16.5               | 2.5 | 2.9 | 13                  | ITL12L/14S     | *                      | *  |
| L/S    | 15/16        | 11.5               | 19.5               | 20.6               | 19.0               | 2.5 | 3.5 | 18                  | ITL15L/16S     | *                      | *  |
| L/S    | 18/20        | 15.0               | 25.2               | 27.1               | 22.5               | 3.0 | 4.4 | 37                  | ITL18L/20S     | *                      | *  |
| L/S    | 22/25        | 19.0               | 30.8               | 32.6               | 27.0               | 3.0 | 5.5 | 54                  | ITL22L/25S     | *                      | *  |
| L/S    | 28/30        | 24.0               | 38.6               | 40.6               | 32.5               | 3.5 | 7.3 | 107                 | ITL28L/30S     | *                      | *  |
| L/L/S  | 35/38/42     | 29.0               | 45.7               | 48.1               | 37.5               | 3.5 | 8.9 | 144                 | ITL35L+42I/38S | *                      | *  |

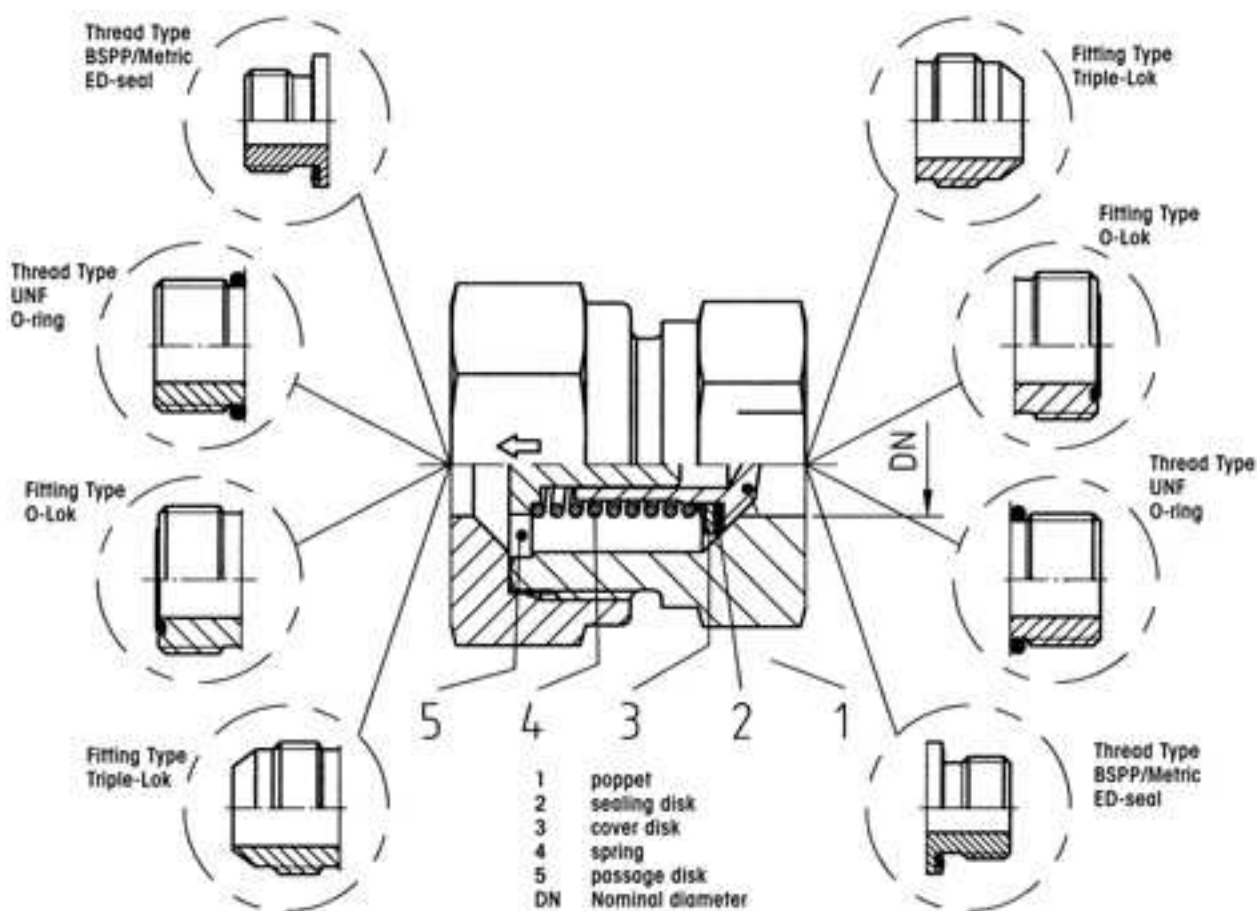
\* = item deliverable

Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page I7.

\*Please add the **suffixes** below according to the material/ surface required.

| Order code suffixes             |                                   |                  |                                                                  |
|---------------------------------|-----------------------------------|------------------|------------------------------------------------------------------|
| Material                        | Suffix<br>surface<br>and material | Example          | Standard<br>sealing material<br>(no additional<br>suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                                | ITL06L/06+008S   | NBR                                                              |
| Stainless steel                 | 71                                | ITL06L71/06+008S | VIT                                                              |

## RHD/V/Z Non return valves with O-Lok® or Triple-Lok® connections



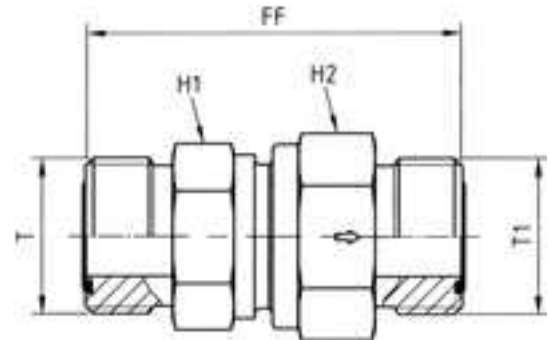
### Material:

- Steel zinc-plated CF Cr(VI)-free, seals in NBR (e.g. Perbunan)
- Internal parts in stainless steel with FKM also available on request.

Perbunan = registered trademark of Bayer

## RHDMLOS Non return valve

O-Lok® ORFS end / O-Lok® ORFS end



| Tube 1<br>O.D. |           | Tube 2<br>O.D. |           | ORFS<br>(UN/UNF)<br>thread<br>T | ORFS<br>(UN/UNF)<br>thread<br>T1 | H1 | H2 | FF   | DN<br>(Nom.<br>diam.) | Weight<br>g/1 piece | Order code*      | PN<br>(bar) <sup>1)</sup> |
|----------------|-----------|----------------|-----------|---------------------------------|----------------------------------|----|----|------|-----------------------|---------------------|------------------|---------------------------|
| mm             | Inch      | mm             | Inch      |                                 |                                  |    |    |      |                       |                     |                  | CF                        |
| 6              | 1/4       | 6              | 1/4       | 9/16-18 UNF                     | 9/16-18 UNF                      | 19 | 19 | 44.5 | 3.5                   | 108                 | <b>4RHDMLOS</b>  | 420                       |
| 8, 10          | 5/16, 3/8 | 8, 10          | 5/16, 3/8 | 11/16-16 UNF                    | 11/16-16 UNF                     | 22 | 24 | 53.5 | 5.5                   | 188                 | <b>6RHDMLOS</b>  | 420                       |
| 12             | 1/2       | 12             | 1/2       | 13/16-16 UNF                    | 13/16-16 UNF                     | 24 | 27 | 59.5 | 7.5                   | 223                 | <b>8RHDMLOS</b>  | 420                       |
| 14, 15, 16     | 5/8       | 14, 15, 16     | 5/8       | 1-14 UNF                        | 1-14 UNF                         | 32 | 36 | 70.5 | 11.5                  | 428                 | <b>10RHDMLOS</b> | 420                       |
| 18, 20         | 3/4       | 18, 20         | 3/4       | 1 3/16-12 UNF                   | 1 3/16-12 UNF                    | 41 | 46 | 77.5 | 15.0                  | 731                 | <b>12RHDMLOS</b> | 420                       |
| 22, 25         | 1         | 22, 25         | 1         | 1 7/16-12 UNF                   | 1 7/16-12 UNF                    | 46 | 50 | 81.5 | 19.0                  | 1076                | <b>16RHDMLOS</b> | 420                       |
| 28, 30, 32     | 1 1/4     | 28, 30, 32     | 1 1/4     | 1 11/16-12 UNF                  | 1 11/16-12 UNF                   | 60 | 60 | 91.5 | 24.0                  | 1630                | <b>20RHDMLOS</b> | 250                       |
| 35, 38         | 1 1/2     | 35, 38         | 1 1/2     | 2-12 UNF                        | 2-12 UNF                         | 65 | 70 | 98.5 | 29.0                  | 2362                | <b>24RHDMLOS</b> | 250                       |

<sup>1)</sup> Pressure shown = item deliverable

$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

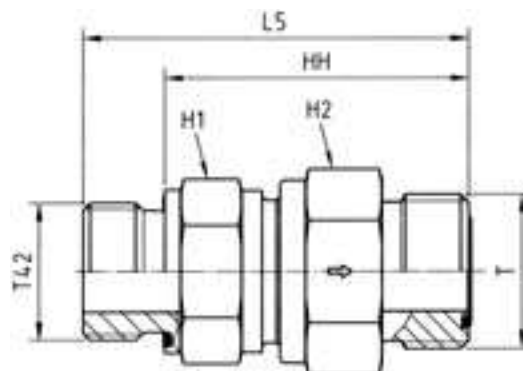
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

\*Please add the **suffixes** below according to the material/ surface required.

| Order code suffixes             |                                   |            |                                                                  |
|---------------------------------|-----------------------------------|------------|------------------------------------------------------------------|
| Material                        | Suffix<br>surface<br>and material | Example    | Standard<br>sealing material<br>(no additional<br>suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                                | 4RHDMLOSCF | NBR                                                              |

## RHV42EDMLOS Non return valve

Male BSPP thread – ED-seal (ISO 1179) / O-Lok® ORFS end



| Tube<br>O.D. |           | BSPP<br>thread | ORFS<br>(UN/UNF) |    |    |       |      | DN<br>(Nom.<br>diam.) | Weight<br>g/1 piece | Order code*          | PN<br>(bar) <sup>1)</sup> |
|--------------|-----------|----------------|------------------|----|----|-------|------|-----------------------|---------------------|----------------------|---------------------------|
| mm           | Inch      | T42            | T                | H1 | H2 | L5    | HH   |                       |                     |                      | CF                        |
| 6            | 1/4       | G 1/8          | 9/16-18 UNF      | 19 | 19 | 44.5  | 36.5 | 3.5                   | 92                  | <b>4RHV42EDMLOS</b>  | 420                       |
| 8, 10        | 5/16, 3/8 | G 1/4          | 11/16-16 UNF     | 24 | 27 | 56.5  | 44.5 | 6.5                   | 165                 | <b>6RHV42EDMLOS</b>  | 420                       |
| 12           | 1/2       | G 3/8          | 13/16-16 UNF     | 24 | 27 | 61.5  | 49.5 | 7.5                   | 191                 | <b>8RHV42EDMLOS</b>  | 420                       |
| 14, 15, 16   | 5/8       | G 1/2          | 1-14 UNF         | 32 | 36 | 70.0  | 56.0 | 11.5                  | 366                 | <b>10RHV42EDMLOS</b> | 420                       |
| 18, 20       | 3/4       | G 3/4          | 1 3/16-12 UNF    | 41 | 46 | 77.5  | 63.5 | 15.0                  | 631                 | <b>12RHV42EDMLOS</b> | 420                       |
| 22, 25       | 1         | G 1            | 1 7/16-12 UNF    | 46 | 50 | 84.0  | 66.0 | 19.0                  | 863                 | <b>16RHV42EDMLOS</b> | 420                       |
| 28, 30, 32   | 1 1/4     | G 1 1/4        | 1 11/16-12 UNF   | 60 | 60 | 95.0  | 75.0 | 24.0                  | 1403                | <b>20RHV42EDMLOS</b> | 250                       |
| 35, 38       | 1 1/2     | G 1 1/2        | 2-12 UNF         | 65 | 70 | 105.0 | 83.0 | 29.0                  | 1969                | <b>24RHV42EDMLOS</b> | 250                       |

<sup>1)</sup> Pressure shown = item deliverable

$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$

Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page I7.

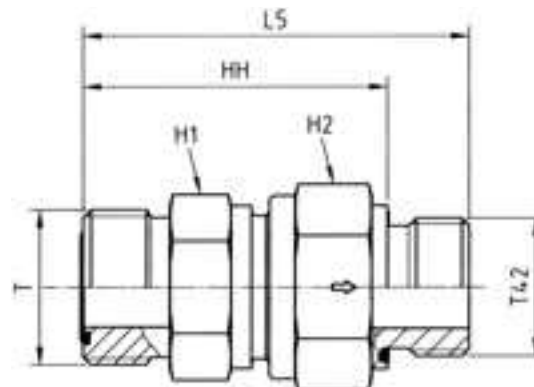
\*Please add the **suffixes** below according to the material/ surface required.

| Order code suffixes             |                                   |                |                                                                  |
|---------------------------------|-----------------------------------|----------------|------------------------------------------------------------------|
| Material                        | Suffix<br>surface<br>and material | Example        | Standard<br>sealing material<br>(no additional<br>suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                                | 4RHV42EDMLOSCF | NBR                                                              |



## RHZ42EDMLOS Non return valve

O-Lok® ORFS end / Male BSPP thread – ED-seal (ISO 1179)



| Tube<br>O.D. |           | BSPP<br>thread | ORFS<br>(UN/UNF)<br>thread<br>T |    |    |       |      | DN<br>(Nom.<br>diam.) | Weight<br>g/1 piece | Order code*          | PN<br>(bar) <sup>1)</sup> |
|--------------|-----------|----------------|---------------------------------|----|----|-------|------|-----------------------|---------------------|----------------------|---------------------------|
| mm           | Inch      | T42            |                                 | H1 | H2 | L5    | HH   |                       |                     |                      | CF                        |
| 6            | 1/4       | G 1/8          | 9/16-18 UNF                     | 19 | 19 | 44.5  | 36.5 | 3.5                   | 91                  | <b>4RHZ42EDMLOS</b>  | 420                       |
| 8, 10        | 5/16, 3/8 | G 1/4          | 11/16-16 UNF                    | 24 | 27 | 56.5  | 44.5 | 6.5                   | 161                 | <b>6RHZ42EDMLOS</b>  | 420                       |
| 12           | 1/2       | G 3/8          | 13/16-16 UNF                    | 24 | 27 | 61.5  | 49.5 | 7.5                   | 190                 | <b>8RHZ42EDMLOS</b>  | 420                       |
| 14, 15, 16   | 5/8       | G 1/2          | 1-14 UNF                        | 32 | 36 | 70.0  | 56.0 | 11.5                  | 348                 | <b>10RHZ42EDMLOS</b> | 420                       |
| 18, 20       | 3/4       | G 3/4          | 1 3/16-12 UNF                   | 41 | 46 | 77.5  | 53.5 | 15.0                  | 634                 | <b>12RHZ42EDMLOS</b> | 420                       |
| 22, 25       | 1         | G 1            | 1 7/16-12 UNF                   | 46 | 50 | 84.0  | 66.0 | 19.0                  | 863                 | <b>16RHZ42EDMLOS</b> | 420                       |
| 28, 30, 32   | 1 1/4     | G 1 1/4        | 1 11/16-12 UNF                  | 60 | 60 | 95.0  | 75.0 | 24.0                  | 1397                | <b>20RHZ42EDMLOS</b> | 250                       |
| 35, 38       | 1 1/2     | G 1 1/2        | 2-12 UNF                        | 65 | 70 | 105.0 | 83.0 | 29.0                  | 2001                | <b>24RHZ42EDMLOS</b> | 250                       |

<sup>1)</sup> Pressure shown = item deliverable

$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$

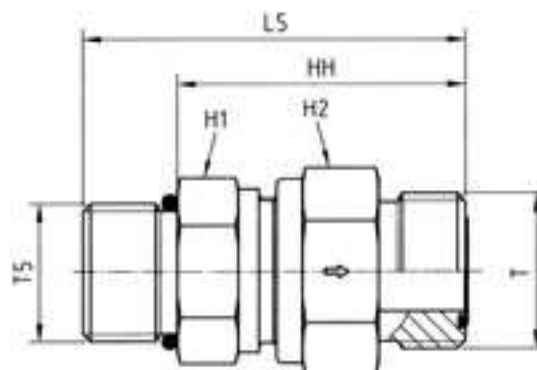
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page I7.

\*Please add the **suffixes** below according to the material/surface required.

| Order code suffixes             |                                   |                |                                                                  |
|---------------------------------|-----------------------------------|----------------|------------------------------------------------------------------|
| Material                        | Suffix<br>surface<br>and material | Example        | Standard<br>sealing material<br>(no additional<br>suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                                | 4RHZ42EDMLOSCF | NBR                                                              |

## RHV5OMLOS Non return valve

Male UN/UNF thread – O-ring (ISO 11926) / O-Lok® ORFS end



| Tube<br>O.D. |           | UNF<br>male<br>thread<br>T5 | ORFS<br>(UN/UNF)<br>thread<br>T | H1 | H2 | L5   | HH   | DN<br>(Nom.<br>diam.) | Weight<br>g/1 piece | Order code*        | PN<br>(bar) <sup>1)</sup><br><br>CF |
|--------------|-----------|-----------------------------|---------------------------------|----|----|------|------|-----------------------|---------------------|--------------------|-------------------------------------|
| mm           | Inch      |                             |                                 |    |    |      |      |                       |                     |                    |                                     |
| 6            | 1/4       | 7/16-20 UNF                 | 9/16-18 UNF                     | 19 | 19 | 45.5 | 34.5 | 3.5                   | 92                  | <b>4RHV5OMLOS</b>  | 420                                 |
| 8, 10        | 5/16, 3/8 | 9/16-18 UNF                 | 11/16-16 UNF                    | 22 | 24 | 54.5 | 42.5 | 5.5                   | 165                 | <b>6RHV5OMLOS</b>  | 420                                 |
| 12           | 1/2       | 3/4-16 UNF                  | 13/16-16 UNF                    | 24 | 27 | 60.5 | 46.5 | 5.5                   | 165                 | <b>8RHV5OMLOS</b>  | 420                                 |
| 14, 15, 16   | 5/8       | 7/8-14 UNF                  | 1-14 UNF                        | 32 | 36 | 71.0 | 55.0 | 11.5                  | 366                 | <b>10RHV5OMLOS</b> | 420                                 |
| 18, 20       | 3/4       | 1 1/16-12 UN                | 1 3/16-12 UNF                   | 41 | 46 | 79.0 | 60.5 | 15.0                  | 631                 | <b>12RHV5OMLOS</b> | 420                                 |
| 22, 25       | 1         | 1 5/16-12 UN                | 1 7/16-12 UNF                   | 46 | 50 | 82.5 | 64.0 | 19.0                  | 863                 | <b>16RHV5OMLOS</b> | 420                                 |
| 28, 30, 32   | 1 1/4     | 1 5/8-12 UN                 | 1 11/16-12 UNF                  | 60 | 60 | 92.5 | 74.0 | 24.0                  | 1403                | <b>20RHV5OMLOS</b> | 250                                 |
| 35, 38       | 1 1/2     | 1 7/8-12 UN                 | 2-12 UNF                        | 65 | 70 | 99.5 | 81.0 | 29.0                  | 1969                | <b>24RHV5OMLOS</b> | 250                                 |

<sup>1)</sup> Pressure shown = item deliverable

$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$

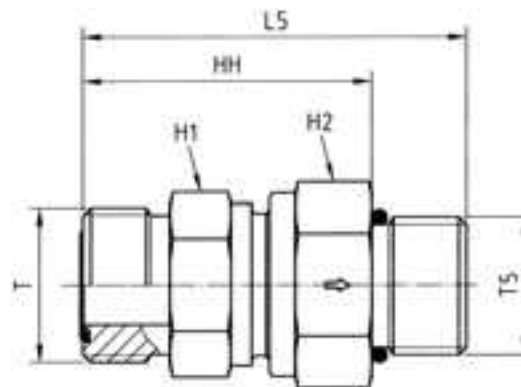
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page I7.

\*Please add the **suffixes** below according to the material/surface required.

| Order code suffixes             |                                   |             |                                                                  |
|---------------------------------|-----------------------------------|-------------|------------------------------------------------------------------|
| Material                        | Suffix<br>surface<br>and material | Example     | Standard<br>sealing material<br>(no additional<br>suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                                | RHV5OMLOSCF | NBR                                                              |

## RHZ5OMLOS Non return valve

O-Lok® ORFS end / Male UN/UNF thread – O-ring (ISO 11926)



| Tube<br>O.D. |           | UNF<br>male<br>thread<br>T5 | ORFS<br>(UN/UNF)<br>thread<br>T | H1 | H2 | L5   | HH   | DN<br>(Nom.<br>diam.) | Weight<br>g/1 piece | Order code*        | PN<br>(bar) <sup>1)</sup><br><br>CF |
|--------------|-----------|-----------------------------|---------------------------------|----|----|------|------|-----------------------|---------------------|--------------------|-------------------------------------|
| mm           | Inch      |                             |                                 |    |    |      |      |                       |                     |                    |                                     |
| 6            | 1/4       | 7/16-20 UNF                 | 9/16-18 UNF                     | 19 | 19 | 45.5 | 34.5 | 3.5                   | 91                  | <b>4RHZ5OMLOS</b>  | 420                                 |
| 8, 10        | 5/16, 3/8 | 9/16-18 UNF                 | 11/16-16 UNF                    | 22 | 24 | 54.5 | 42.5 | 5.5                   | 161                 | <b>6RHZ5OMLOS</b>  | 420                                 |
| 12           | 1/2       | 3/4-16 UNF                  | 13/16-16 UNF                    | 24 | 27 | 60.5 | 46.5 | 5.5                   | 161                 | <b>8RHZ5OMLOS</b>  | 420                                 |
| 14, 15, 16   | 5/8       | 7/8-14 UNF                  | 1-14 UNF                        | 32 | 36 | 71.0 | 55.0 | 11.5                  | 348                 | <b>10RHZ5OMLOS</b> | 420                                 |
| 18, 20       | 3/4       | 1 1/16-12 UN                | 1 3/16-12 UNF                   | 41 | 46 | 79.0 | 60.5 | 15.0                  | 634                 | <b>12RHZ5OMLOS</b> | 420                                 |
| 22, 25       | 1         | 1 5/16-12 UN                | 1 7/16-12 UNF                   | 46 | 50 | 82.5 | 64.0 | 19.0                  | 863                 | <b>16RHZ5OMLOS</b> | 420                                 |
| 28, 30, 32   | 1 1/4     | 1 5/8-12 UN                 | 1 11/16-12 UNF                  | 60 | 60 | 92.5 | 74.0 | 24.0                  | 1397                | <b>20RHZ5OMLOS</b> | 250                                 |
| 35, 38       | 1 1/2     | 1 7/8-12 UN                 | 2-12 UNF                        | 65 | 70 | 99.5 | 81.0 | 29.0                  | 2001                | <b>24RHZ5OMLOS</b> | 250                                 |

<sup>1)</sup> Pressure shown = item deliverable

$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$

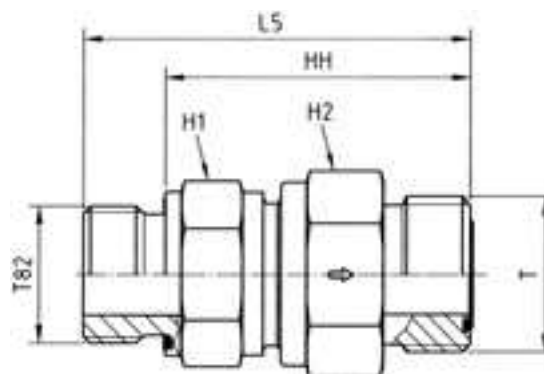
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page I7.

\*Please add the **suffixes** below according to the material/surface required.

| Order code suffixes             |                                   |              |                                                                  |
|---------------------------------|-----------------------------------|--------------|------------------------------------------------------------------|
| Material                        | Suffix<br>surface<br>and material | Example      | Standard<br>sealing material<br>(no additional<br>suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                                | 4RHZ5OMLOSCF | NBR                                                              |

## RHV82EDMLOS Non return valve

Male metric thread – ED-seal (ISO 9974) / O-Lok® ORFS end



| Tube<br>O.D. |           | metric<br>thread<br>T82 | ORFS<br>(UN/UNF)<br>thread<br>T | H1 | H2 | L5    | HH   | DN<br>(Nom.<br>diam.) | Weight<br>g/1 piece | Order code*              | PN<br>(bar) <sup>1)</sup><br><br>CF |
|--------------|-----------|-------------------------|---------------------------------|----|----|-------|------|-----------------------|---------------------|--------------------------|-------------------------------------|
| mm           | Inch      |                         |                                 |    |    |       |      |                       |                     |                          |                                     |
| 6            | 1/4       | M 12×1.5                | 9/16-18 UNF                     | 19 | 19 | 48.5  | 36.5 | 3.5                   | 89                  | <b>4M12RHHV82EDMLOS</b>  | 420                                 |
| 8, 10        | 5/16, 3/8 | M 16×1.5                | 11/16-16 UNF                    | 22 | 24 | 56.5  | 44.5 | 5.5                   | 157                 | <b>6M16RHHV82EDMLOS</b>  | 420                                 |
| 12           | 1/2       | M 18×1.5                | 13/16-16 UNF                    | 24 | 27 | 61.5  | 49.5 | 7.5                   | 195                 | <b>8M18RHHV82EDMLOS</b>  | 420                                 |
| 14, 15, 16   | 5/8       | M 22×1.5                | 1-14 UNF                        | 32 | 36 | 72.0  | 58.0 | 11.5                  | 369                 | <b>10M22RHHV82EDMLOS</b> | 420                                 |
| 18, 20       | 3/4       | M 27×2.0                | 1 3/16-12 UNF                   | 41 | 46 | 79.5  | 63.5 | 15.0                  | 628                 | <b>12M27RHHV82EDMLOS</b> | 420                                 |
| 22, 25       | 1         | M 33×2.0                | 1 7/16-12 UNF                   | 46 | 50 | 84.0  | 66.0 | 19.0                  | 867                 | <b>16M33RHHV82EDMLOS</b> | 420                                 |
| 28, 30, 32   | 1 1/4     | M 42×2.0                | 1 11/16-12 UNF                  | 60 | 60 | 95.0  | 75.0 | 24.0                  | 1409                | <b>20M42RHHV82EDMLOS</b> | 250                                 |
| 35, 38       | 1 1/2     | M 48×2.0                | 2-12 UNF                        | 65 | 70 | 103.0 | 81.0 | 29.0                  | 1970                | <b>24M48RHHV82EDMLOS</b> | 250                                 |

<sup>1)</sup> Pressure shown = item deliverable

$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$

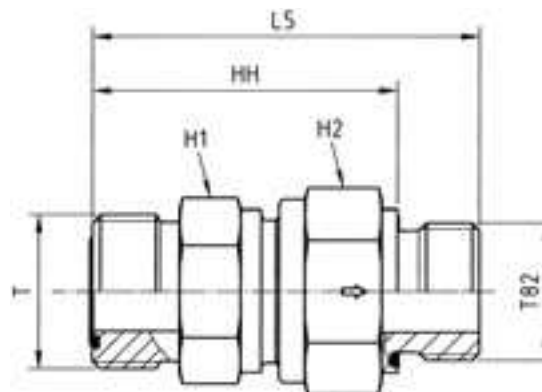
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page I7.

\*Please add the **suffixes** below according to the material/ surface required.

| Order code suffixes             |                                   |                    |                                                                  |
|---------------------------------|-----------------------------------|--------------------|------------------------------------------------------------------|
| Material                        | Suffix<br>surface<br>and material | Example            | Standard<br>sealing material<br>(no additional<br>suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                                | 4M12RHHV82EDMLOSCF | NBR                                                              |

## RHZ82EDMLOS Non return valve

O-Lok® ORFS end / Male metric thread – ED-seal (ISO 9974)



| Tube<br>O.D. |           | metric<br>thread<br>T82 | ORFS<br>(UN/UNF)<br>thread<br>T | H1 | H2 | L5    | HH   | DN<br>(Nom.<br>diam.) | Weight<br>g/1 piece | Order code*             | PN<br>(bar) <sup>1)</sup><br><br>CF |
|--------------|-----------|-------------------------|---------------------------------|----|----|-------|------|-----------------------|---------------------|-------------------------|-------------------------------------|
| mm           | Inch      |                         |                                 |    |    |       |      |                       |                     |                         |                                     |
| 6            | 1/4       | M 12×1.5                | 9/16-18 UNF                     | 19 | 19 | 48.5  | 36.5 | 3.5                   | 89                  | <b>4M12RHZ82EDMLOS</b>  | 420                                 |
| 8, 10        | 5/16, 3/8 | M 16×1.5                | 11/16-16 UNF                    | 24 | 27 | 59.1  | 47.1 | 7.5                   | 156                 | <b>6M16RHZ82EDMLOS</b>  | 420                                 |
| 12           | 1/2       | M 18×1.5                | 13/16-16 UNF                    | 24 | 27 | 61.5  | 49.5 | 7.5                   | 195                 | <b>8M18RHZ82EDMLOS</b>  | 420                                 |
| 14, 15, 16   | 5/8       | M 22×1.5                | 1-14 UNF                        | 32 | 36 | 70.0  | 56.0 | 11.5                  | 352                 | <b>10M22RHZ82EDMLOS</b> | 420                                 |
| 18, 20       | 3/4       | M 27×2.0                | 1 3/16-12 UNF                   | 41 | 46 | 77.5  | 61.5 | 15.0                  | 608                 | <b>12M27RHZ82EDMLOS</b> | 420                                 |
| 22, 25       | 1         | M 33×2.0                | 1 7/16-12 UNF                   | 46 | 50 | 84.0  | 66.0 | 19.0                  | 965                 | <b>16M33RHZ82EDMLOS</b> | 420                                 |
| 28, 30, 32   | 1 1/4     | M 42×2.0                | 1 11/16-12 UNF                  | 60 | 60 | 95.0  | 75.0 | 24.0                  | 1396                | <b>20M42RHZ82EDMLOS</b> | 250                                 |
| 35, 38       | 1 1/2     | M 48×2.0                | 2-12 UNF                        | 65 | 70 | 115.0 | 93.0 | 29.0                  | 1978                | <b>24M48RHZ82EDMLOS</b> | 250                                 |

<sup>1)</sup> Pressure shown = item deliverable

$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$

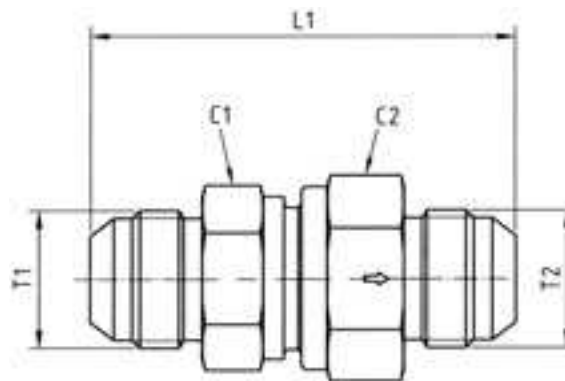
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page I7.

\*Please add the **suffixes** below according to the material/ surface required.

| Order code suffixes             |                                   |                   |                                                                  |
|---------------------------------|-----------------------------------|-------------------|------------------------------------------------------------------|
| Material                        | Suffix<br>surface<br>and material | Example           | Standard<br>sealing material<br>(no additional<br>suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                                | 4M12RHZ82EDMLOSCF | NBR                                                              |

## RHDMTXS Non return valve

Triple-Lok® 37° flare end / Triple-Lok® 37° flare end



| Tube 1<br>O.D. |       | Tube 2<br>O.D. |       | Thread<br>JIC<br>SAE<br>T1 | Thread<br>JIC<br>SAE<br>T2 | C1 | C2 | L1    | DN<br>(Nom.<br>diam.) | Weight<br>g/1 piece | Order code*      | PN<br>(bar) <sup>1)</sup> |
|----------------|-------|----------------|-------|----------------------------|----------------------------|----|----|-------|-----------------------|---------------------|------------------|---------------------------|
| mm             | Inch  | mm             | Inch  |                            |                            |    |    |       |                       |                     | CF               |                           |
| 6              | 1/4   | 6              | 1/4   | 7/16-20 UNF                | 7/16-20 UNF                | 19 | 19 | 52.5  | 3.5                   | 108                 | <b>4RHDMTXS</b>  | 420                       |
| 8              | 5/16  | 8              | 5/16  | 1/2-20 UNF                 | 1/2-20 UNF                 | 22 | 24 | 59.5  | 5.5                   | 188                 | <b>5RHDMTXS</b>  | 420                       |
| 10             | 3/8   | 10             | 3/8   | 9/16-18 UNF                | 9/16-18 UNF                | 24 | 27 | 61.5  | 7.5                   | 223                 | <b>6RHDMTXS</b>  | 420                       |
| 12             | 1/2   | 12             | 1/2   | 3/4-16 UNF                 | 3/4-16 UNF                 | 27 | 32 | 69.5  | 9.5                   | 324                 | <b>8RHDMTXS</b>  | 420                       |
| 14, 15, 16     | 5/8   | 14, 15, 16     | 5/8   | 7/8-14 UNF                 | 7/8-14 UNF                 | 32 | 36 | 78.5  | 11.5                  | 428                 | <b>10RHDMTXS</b> | 350                       |
| 18, 20         | 3/4   | 18, 20         | 3/4   | 1 1/16-12 UN               | 1 1/16-12 UN               | 41 | 46 | 87.5  | 15.0                  | 731                 | <b>12RHDMTXS</b> | 350                       |
| 25             | 1     | 25             | 1     | 1 5/16-12 UN               | 1 5/16-12 UN               | 46 | 50 | 92.5  | 19.0                  | 1076                | <b>16RHDMTXS</b> | 280                       |
| 28, 30, 32     | 1 1/4 | 28, 30, 32     | 1 1/4 | 1 5/8-12 UN                | 1 5/8-12 UN                | 60 | 60 | 105.5 | 24.0                  | 1630                | <b>20RHDMTXS</b> | 250                       |
| 35, 38         | 1 1/2 | 35, 38         | 1 1/2 | 1 7/8-12 UN                | 1 7/8-12 UN                | 65 | 70 | 118.5 | 29.0                  | 2362                | <b>24RHDMTXS</b> | 210                       |

<sup>1)</sup> Pressure shown = item deliverable

$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$

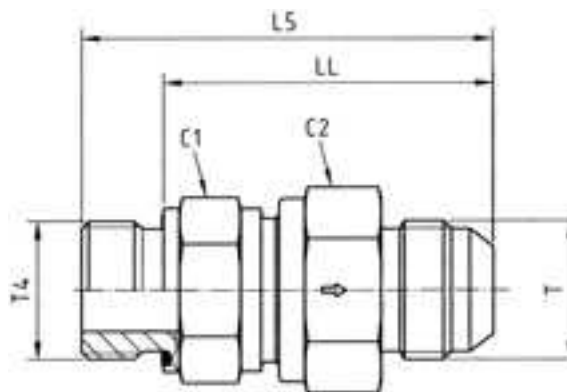
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page I7.

\*Please add the **suffixes** below according to the material/ surface required.

| Order code suffixes             |                                   |            |                                                                  |
|---------------------------------|-----------------------------------|------------|------------------------------------------------------------------|
| Material                        | Suffix<br>surface<br>and material | Example    | Standard<br>sealing material<br>(no additional<br>suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                                | 4RHDMTXSCF | NBR                                                              |

## RHV42EDMXS Non return valve

Male BSPP thread – ED-seal (ISO 1179) / Triple-Lok® 37° flare end



| Tube<br>O.D. |       | BSPP<br>thread | Thread<br>JIC<br>SAE<br>T |    |    |       |      | DN<br>(Nom.<br>diam.) | Weight<br>g/1 piece | Order code*          | PN<br>(bar) <sup>1)</sup> |
|--------------|-------|----------------|---------------------------|----|----|-------|------|-----------------------|---------------------|----------------------|---------------------------|
| mm           | Inch  | T4             | T                         | C1 | C2 | L5    | LL   |                       |                     |                      | CF                        |
| 6            | 1/4   | G 1/8          | 7/16-20 UNF               | 19 | 19 | 48.0  | 40.0 | 3.5                   | 92                  | <b>4RHV42EDMXS</b>   | 420                       |
| 8            | 5/16  | G 1/4          | 1/2-20 UNF                | 22 | 24 | 59.5  | 47.5 | 5.5                   | 165                 | <b>5-4RHV42EDMXS</b> | 420                       |
| 10           | 3/8   | G 1/4          | 9/16-18 UNF               | 24 | 27 | 62.0  | 50.0 | 7.5                   | 191                 | <b>6RHV42EDMXS</b>   | 420                       |
| 12           | 1/2   | G 3/8          | 3/4-16 UNF                | 27 | 32 | 67.0  | 55.0 | 9.5                   | 277                 | <b>8RHV42EDMXS</b>   | 420                       |
| 14, 15, 16   | 5/8   | G 1/2          | 7/8-14 UNF                | 32 | 36 | 76.0  | 62.0 | 11.5                  | 366                 | <b>10RHV42EDMXS</b>  | 350                       |
| 18, 20       | 3/4   | G 3/4          | 1 1/16-12 UN              | 41 | 46 | 84.5  | 68.5 | 15.0                  | 631                 | <b>12RHV42EDMXS</b>  | 350                       |
| 25           | 1     | G 1            | 1 5/16-12 UN              | 46 | 50 | 89.5  | 71.5 | 19.0                  | 863                 | <b>16RHV42EDMXS</b>  | 280                       |
| 28, 30, 32   | 1 1/4 | G 1 1/4        | 1 5/8-12 UN               | 60 | 60 | 102.0 | 82.0 | 24.0                  | 1403                | <b>20RHV42EDMXS</b>  | 250                       |
| 35, 38       | 1 1/2 | G 1 1/2        | 1 7/8-12 UN               | 65 | 70 | 113.0 | 91.0 | 29.0                  | 1969                | <b>24RHV42EDMXS</b>  | 210                       |

<sup>1)</sup> Pressure shown = item deliverable

$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

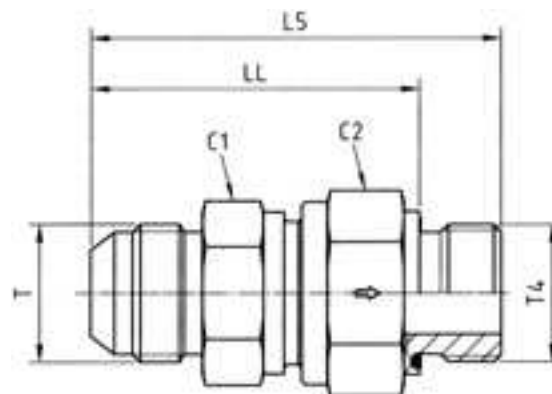
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

\*Please add the **suffixes** below according to the material/surface required.

| Order code suffixes             |                                   |               |                                                                  |
|---------------------------------|-----------------------------------|---------------|------------------------------------------------------------------|
| Material                        | Suffix<br>surface<br>and material | Example       | Standard<br>sealing material<br>(no additional<br>suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                                | 4RHV42EDMXSCF | NBR                                                              |

## RHZ42EDMXS Non return valve

Triple-Lok® 37° flare end / Male BSPP thread – ED-seal (ISO 1179)



| Tube<br>O.D. |       | BSPP<br>thread | Thread<br>JIC<br>SAE<br>T |    |    |       |      | DN<br>(Nom.<br>diam.) | Weight<br>g/1 piece | Order code*          | PN<br>(bar) <sup>1)</sup> |
|--------------|-------|----------------|---------------------------|----|----|-------|------|-----------------------|---------------------|----------------------|---------------------------|
| mm           | Inch  | T4             | T                         | C1 | C2 | L5    | LL   |                       |                     |                      | CF                        |
| 6            | 1/4   | G 1/8          | 7/16-20 UNF               | 19 | 19 | 48.0  | 40.0 | 3.5                   | 89                  | <b>4RHZ42EDMXS</b>   | 420                       |
| 8            | 5/16  | G 1/4          | 1/2-20 UNF                | 22 | 24 | 59.0  | 47.0 | 5.5                   | 156                 | <b>5-4RHZ42EDMXS</b> | 420                       |
| 10           | 3/8   | G 1/4          | 9/16-18 UNF               | 24 | 27 | 62.0  | 50.0 | 7.5                   | 190                 | <b>6RHZ42EDMXS</b>   | 420                       |
| 12           | 1/2   | G 3/8          | 3/4-16 UNF                | 27 | 32 | 66.0  | 54.0 | 9.5                   | 278                 | <b>8RHZ42EDMXS</b>   | 420                       |
| 14, 15, 16   | 5/8   | G 1/2          | 7/8-14 UNF                | 32 | 36 | 74.0  | 60.0 | 11.5                  | 348                 | <b>10RHZ42EDMXS</b>  | 350                       |
| 18, 20       | 3/4   | G 3/4          | 1 1/16-12 UN              | 41 | 46 | 82.5  | 66.5 | 15.0                  | 634                 | <b>12RHZ42EDMXS</b>  | 350                       |
| 25           | 1     | G 1            | 1 5/16-12 UN              | 46 | 50 | 89.5  | 71.5 | 19.0                  | 863                 | <b>16RHZ42EDMXS</b>  | 280                       |
| 28, 30, 32   | 1 1/4 | G 1 1/4        | 1 5/8-12 UN               | 60 | 60 | 102.0 | 82.0 | 24.0                  | 1397                | <b>20RHZ42EDMXS</b>  | 250                       |
| 35, 38       | 1 1/2 | G 1 1/2        | 1 7/8-12 UN               | 65 | 70 | 115.0 | 93.0 | 29.0                  | 2001                | <b>24RHZ42EDMXS</b>  | 210                       |

<sup>1)</sup> Pressure shown = item deliverable

$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$

Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

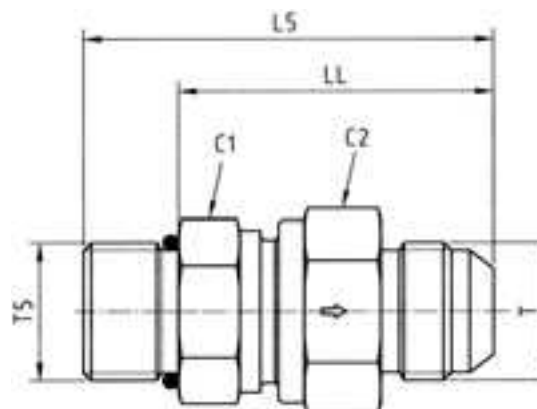
\*Please add the **suffixes** below according to the material/ surface required.

| Order code suffixes             |                                   |               |                                                                  |
|---------------------------------|-----------------------------------|---------------|------------------------------------------------------------------|
| Material                        | Suffix<br>surface<br>and material | Example       | Standard<br>sealing material<br>(no additional<br>suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                                | 4RHZ42EDMXSCF | NBR                                                              |



## RHV5OMXS Non return valve

Male UN/UNF thread – O-ring (ISO 11926) / Triple-Lok® 37° flare end



| Tube<br>O.D. |       | Thread<br>UNF<br>T5 | Thread<br>JIC<br>SAE<br>T | C1 | C2 | L5    | LL   | DN<br>(Nom.<br>diam.) | Weight<br>g/1 piece | Order code*       | PN<br>(bar) <sup>1)</sup> |
|--------------|-------|---------------------|---------------------------|----|----|-------|------|-----------------------|---------------------|-------------------|---------------------------|
| mm           | Inch  |                     |                           |    |    |       |      |                       |                     |                   | CF                        |
| 6            | 1/4   | 7/16-20 UNF         | 7/16-20 UNF               | 19 | 19 | 49.5  | 38.5 | 3.5                   | 92                  | <b>4RHV5OMXS</b>  | 420                       |
| 8            | 5/16  | 1/2-20 UNF          | 1/2-20 UNF                | 22 | 24 | 56.5  | 45.5 | 5.5                   | 165                 | <b>5RHV5OMXS</b>  | 420                       |
| 10           | 3/8   | 9/16-18 UNF         | 9/16-18 UNF               | 24 | 27 | 59.5  | 47.5 | 7.5                   | 191                 | <b>6RHV5OMXS</b>  | 420                       |
| 12           | 1/2   | 3/4-16 UNF          | 3/4-16 UNF                | 27 | 32 | 66.5  | 52.5 | 9.5                   | 277                 | <b>8RHV5OMXS</b>  | 420                       |
| 14, 15, 16   | 5/8   | 7/8-14 UNF          | 7/8-14 UNF                | 32 | 36 | 75.0  | 59.0 | 11.5                  | 366                 | <b>10RHV5OMXS</b> | 350                       |
| 18, 20       | 3/4   | 1 1/16-12 UN        | 1 1/16-12 UN              | 41 | 46 | 84.0  | 65.5 | 15.0                  | 631                 | <b>12RHV5OMXS</b> | 350                       |
| 25           | 1     | 1 5/16-12 UN        | 1 5/16-12 UN              | 46 | 50 | 88.0  | 69.5 | 19.0                  | 863                 | <b>16RHV5OMXS</b> | 280                       |
| 28, 30, 32   | 1 1/4 | 1 5/8-12 UN         | 1 5/8-12 UN               | 60 | 60 | 99.5  | 81.0 | 24.0                  | 1403                | <b>20RHV5OMXS</b> | 250                       |
| 35, 38       | 1 1/2 | 1 7/8-12 UN         | 1 7/8-12 UN               | 65 | 70 | 109.5 | 91.0 | 29.0                  | 1969                | <b>24RHV5OMXS</b> | 210                       |

<sup>1)</sup> Pressure shown = item deliverable

$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

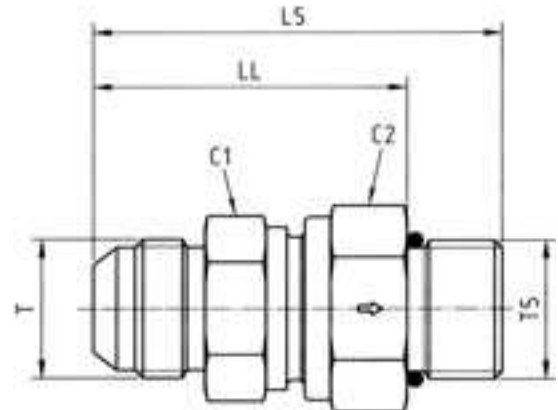
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

\*Please add the **suffixes** below according to the material/surface required.

| Order code suffixes             |                                   |             |                                                                  |
|---------------------------------|-----------------------------------|-------------|------------------------------------------------------------------|
| Material                        | Suffix<br>surface<br>and material | Example     | Standard<br>sealing material<br>(no additional<br>suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                                | RHV5OMXS CF | NBR                                                              |

## RHZ5OMXS Non return valve

Triple-Lok® 37° flare end / Male UN/UNF thread – O-ring (ISO 11926)



| Tube<br>O.D. |       | Thread<br>UNF<br>T5 | Thread<br>JIC<br>SAE<br>T | C1 | C2 | L5    | LL   | DN<br>(Nom.<br>diam.) | Weight<br>g/1 piece | Order code*       | PN<br>(bar) <sup>1)</sup> |
|--------------|-------|---------------------|---------------------------|----|----|-------|------|-----------------------|---------------------|-------------------|---------------------------|
| mm           | Inch  |                     |                           |    |    |       |      |                       |                     |                   | CF                        |
| 6            | 1/4   | 7/16-20 UNF         | 7/16-18 UNF               | 19 | 19 | 49.5  | 38.5 | 3.5                   | 91                  | <b>4RHZ5OMXS</b>  | 420                       |
| 8            | 5/16  | 1/2-20 UNF          | 1/2-20 UNF                | 22 | 24 | 56.5  | 45.5 | 5.5                   | 161                 | <b>5RHZ5OMXS</b>  | 420                       |
| 10           | 3/8   | 9/16-18 UNF         | 9/16-18 UNF               | 24 | 27 | 59.5  | 47.5 | 7.5                   | 190                 | <b>6RHZ5OMXS</b>  | 420                       |
| 12           | 1/2   | 3/4-16 UNF          | 3/4-16 UNF                | 27 | 32 | 66.5  | 52.5 | 9.5                   | 278                 | <b>8RHZ5OMXS</b>  | 420                       |
| 14, 15, 16   | 5/8   | 7/8-14 UNF          | 7/8-14 UNF                | 32 | 36 | 75.0  | 59.0 | 11.5                  | 348                 | <b>10RHZ5OMXS</b> | 350                       |
| 18, 20       | 3/4   | 1 1/16-12 UN        | 1 1/16-12 UN              | 41 | 46 | 84.0  | 65.5 | 15.0                  | 634                 | <b>12RHZ5OMXS</b> | 350                       |
| 25           | 1     | 1 5/16-12 UN        | 1 5/16-12 UN              | 46 | 50 | 88.0  | 69.5 | 19.0                  | 863                 | <b>16RHZ5OMXS</b> | 280                       |
| 28, 30, 32   | 1 1/4 | 1 5/8-12 UN         | 1 5/8-12 UN               | 60 | 60 | 107.0 | 81.0 | 24.0                  | 1397                | <b>20RHZ5OMXS</b> | 250                       |
| 35, 38       | 1 1/2 | 1 7/8-12 UN         | 1 7/8-12 UN               | 65 | 70 | 109.5 | 91.0 | 29.0                  | 2001                | <b>24RHZ5OMXS</b> | 210                       |

<sup>1)</sup> Pressure shown = item deliverable

$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$

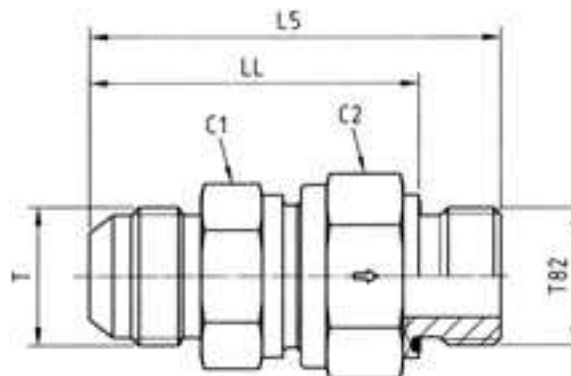
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

\*Please add the **suffixes** below according to the material/surface required.

| Order code suffixes             |                                   |                         |                                                                  |
|---------------------------------|-----------------------------------|-------------------------|------------------------------------------------------------------|
| Material                        | Suffix<br>surface<br>and material | Example                 | Standard<br>sealing material<br>(no additional<br>suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                                | 4RHZ5OMXS <sup>CF</sup> | NBR                                                              |

## RHV82EDMXS Non return valve

Male metric thread – ED-seal (ISO 9974) / Triple-Lok® 37° flare end



| Tube<br>O.D. |       | Metric<br>thread<br>T82 | Thread<br>JIC<br>SAE<br>T | C1 | C2 | L5    | LL   | DN<br>(Nom.<br>diam.) | Weight<br>g/1 piece | Order code*            | PN<br>(bar) <sup>1)</sup> |
|--------------|-------|-------------------------|---------------------------|----|----|-------|------|-----------------------|---------------------|------------------------|---------------------------|
| mm           | Inch  |                         |                           |    |    |       |      |                       |                     |                        | CF                        |
| 6            | 1/4   | M 10×1.0                | 7/16-20 UNF               | 19 | 19 | 48.0  | 40.0 | 3.5                   | 89                  | <b>4M10RHV82EDMXS</b>  | 420                       |
| 8            | 5/16  | M 12×1.5                | 1/2-20 UNF                | 22 | 24 | 59.5  | 47.5 | 5.5                   | 157                 | <b>5M12RHV82EDMXS</b>  | 420                       |
| 10           | 3/8   | M 14×1.5                | 9/16-18 UNF               | 24 | 27 | 62.0  | 50.0 | 7.5                   | 195                 | <b>6M14RHV82EDMXS</b>  | 420                       |
| 12           | 1/2   | M 16×1.5                | 3/4-16 UNF                | 27 | 32 | 67.0  | 55.0 | 9.5                   | 274                 | <b>8M16RHV82EDMXS</b>  | 420                       |
| 14, 15, 16   | 5/8   | M 18×1.5                | 7/8-14 UNF                | 32 | 36 | 73.5  | 61.5 | 11.5                  | 369                 | <b>10M18RHV82EDMXS</b> | 350                       |
| 18, 20       | 3/4   | M 27×2.0                | 1 1/16-12 UN              | 41 | 46 | 84.5  | 68.5 | 15.0                  | 628                 | <b>12M27RHV82EDMXS</b> | 350                       |
| 25           | 1     | M 33×2.0                | 1 5/16-12 UN              | 46 | 50 | 89.5  | 71.5 | 19.0                  | 867                 | <b>16M33RHV82EDMXS</b> | 280                       |
| 28, 30, 32   | 1 1/4 | M 42×2.0                | 1 5/8-12 UN               | 60 | 60 | 102.0 | 82.0 | 24.0                  | 1409                | <b>20M42RHV82EDMXS</b> | 250                       |
| 35, 38       | 1 1/2 | M 48×2.0                | 1 7/8-12 UN               | 65 | 70 | 113.0 | 91.0 | 29.0                  | 1970                | <b>24M48RHV82EDMXS</b> | 210                       |

<sup>1)</sup> Pressure shown = item deliverable

$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

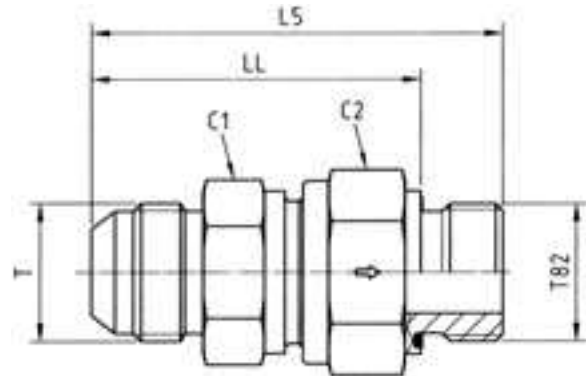
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page I7.

\*Please add the **suffixes**  
below according to the material/  
surface required.

| Order code suffixes             |                                   |                  |                                                                  |
|---------------------------------|-----------------------------------|------------------|------------------------------------------------------------------|
| Material                        | Suffix<br>surface<br>and material | Example          | Standard<br>sealing material<br>(no additional<br>suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                                | 4M10RHV82EDMXSCF | NBR                                                              |

## RHZ82EDMXS Non return valve

Triple-Lok® 37° flare end / Male metric thread – ED-seal (ISO 9974)



| Tube<br>O.D. |       | Metric<br>thread<br>T82 | Thread<br>JIC<br>SAE<br>T | C1 | C2 | L5    | LL   | DN<br>(Nom.<br>diam.) | Weight<br>g/1 piece | Order code*            | PN<br>(bar) <sup>1)</sup><br><br>CF |
|--------------|-------|-------------------------|---------------------------|----|----|-------|------|-----------------------|---------------------|------------------------|-------------------------------------|
| mm           | Inch  |                         |                           |    |    |       |      |                       |                     |                        |                                     |
| 6            | 1/4   | M 10×1.0                | 7/16-20 UNF               | 19 | 19 | 48.0  | 40.0 | 3.5                   | 89                  | <b>4M10RHZ82EDMXS</b>  | 420                                 |
| 8            | 5/16  | M 12×1.5                | 1/2-20 UNF                | 22 | 24 | 59.5  | 47.5 | 5.5                   | 156                 | <b>5M12RHZ82EDMXS</b>  | 420                                 |
| 10           | 3/8   | M 14×1.5                | 9/16-18 UNF               | 24 | 27 | 62.0  | 50.0 | 7.5                   | 195                 | <b>6M14RHZ82EDMXS</b>  | 420                                 |
| 12           | 1/2   | M 16×1.5                | 3/4-16 UNF                | 27 | 32 | 66.0  | 54.0 | 9.5                   | 272                 | <b>8M16RHZ82EDMXS</b>  | 420                                 |
| 14, 15, 16   | 5/8   | M 18×1.5                | 7/8-14 UNF                | 32 | 36 | 71.5  | 59.5 | 11.5                  | 352                 | <b>10M18RHZ82EDMXS</b> | 350                                 |
| 18, 20       | 3/4   | M 27×2.0                | 1 1/16-12 UN              | 41 | 46 | 82.5  | 66.5 | 15.0                  | 608                 | <b>12M27RHZ82EDMXS</b> | 350                                 |
| 25           | 1     | M 33×2.0                | 1 5/16-12 UN              | 46 | 50 | 89.5  | 71.5 | 19.0                  | 965                 | <b>16M33RHZ82EDMXS</b> | 280                                 |
| 28, 30, 32   | 1 1/4 | M 42×2.0                | 1 5/8-12 UN               | 60 | 60 | 102.0 | 82.0 | 24.0                  | 1396                | <b>20M42RHZ82EDMXS</b> | 250                                 |
| 35, 38       | 1 1/2 | M 48×2.0                | 1 7/8-12 UN               | 65 | 70 | 115.0 | 93.0 | 29.0                  | 1807                | <b>24M48RHZ82EDMXS</b> | 210                                 |

<sup>1)</sup> Pressure shown = item deliverable

$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$

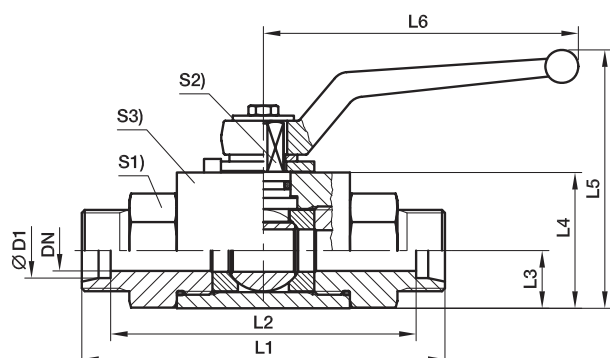
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page I7.

\*Please add the **suffixes**  
below according to the material/  
surface required.

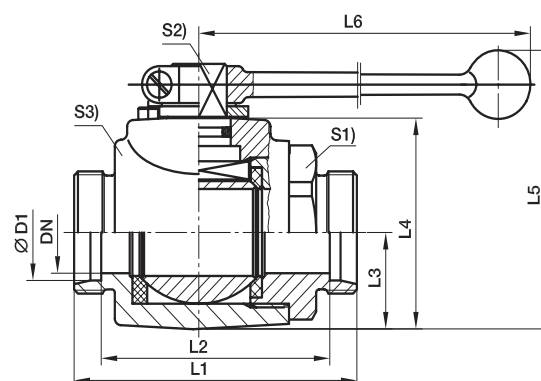
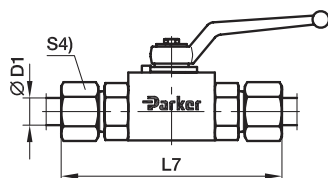
| Order code suffixes             |                                   |                  |                                                                  |
|---------------------------------|-----------------------------------|------------------|------------------------------------------------------------------|
| Material                        | Suffix<br>surface<br>and material | Example          | Standard<br>sealing material<br>(no additional<br>suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                                | 4M10RHZ82EDMXSCF | NBR                                                              |

## KH 2-way ball valve steel

EO 24° cone end / EO 24° cone end



DN 4-25



DN 32-40

| Series          | D1<br>Ø | DN | L1  | L2  | L3   | L4 | L5    | L6  | L7  | S1 | S2 | S3 | S4 | Weight<br>g/1 piece | Order code*       | PN<br>(bar) <sup>1)</sup> |
|-----------------|---------|----|-----|-----|------|----|-------|-----|-----|----|----|----|----|---------------------|-------------------|---------------------------|
| L <sup>3)</sup> | 06      | 4  | 67  | 53  | 10.0 | 25 | 55.0  | 76  | 82  | 19 | 7  | 20 | 14 | 195                 | <b>KH06LX</b>     | 500                       |
|                 | 08      | 6  | 67  | 53  | 10.0 | 25 | 55.0  | 76  | 82  | 19 | 7  | 20 | 17 | 190                 | <b>KH08LX</b>     | 500                       |
|                 | 10      | 8  | 75  | 61  | 14.5 | 35 | 68.0  | 100 | 90  | 24 | 8  | 30 | 19 | 420                 | <b>KH10LX</b>     | 500                       |
|                 | 12      | 10 | 75  | 61  | 14.5 | 35 | 68.0  | 100 | 90  | 24 | 8  | 30 | 22 | 410                 | <b>KH12LX</b>     | 500                       |
|                 | 15      | 12 | 83  | 69  | 17.0 | 40 | 92.0  | 112 | 99  | 30 | 10 | 35 | 27 | 631                 | <b>KH15LX</b>     | 500                       |
|                 | 18      | 16 | 82  | 67  | 20.0 | 45 | 105.0 | 166 | 99  | 36 | 11 | 45 | 32 | 850                 | <b>KH18LX</b>     | 400                       |
|                 | 22      | 20 | 99  | 84  | 24.0 | 55 | 113.0 | 187 | 116 | 41 | 14 | 45 | 36 | 1210                | <b>KH22LX</b>     | 400                       |
|                 | 28      | 25 | 108 | 93  | 26.0 | 60 | 118.0 | 187 | 126 | 50 | 14 | 55 | 41 | 1750                | <b>KH28LX</b>     | 400                       |
|                 | 35      | 25 | 116 | 95  | 26.0 | 60 | 118.0 | 187 | 138 | 50 | 14 | 55 | 50 | 1820                | <b>KH35LXDN25</b> | 400                       |
|                 | 35      | 32 | 121 | 100 | 36.5 | 80 | 180.5 | 320 | 143 | 60 | 17 | 73 | 50 | 3158                | <b>KH35LX</b>     | 315                       |
|                 | 42      | 25 | 121 | 99  | 26.0 | 60 | 118.0 | 187 | 144 | 55 | 14 | 55 | 60 | 1940                | <b>KH42LXDN25</b> | 400                       |
|                 | 42      | 40 | 118 | 96  | 42.5 | 90 | 190.5 | 320 | 141 | 70 | 17 | 85 | 60 | 3788                | <b>KH42LX</b>     | 315                       |
|                 | 08      | 4  | 73  | 59  | 10.0 | 25 | 55.0  | 76  | 88  | 19 | 7  | 20 | 19 | 214                 | <b>KH08SX</b>     | 500                       |
|                 | 10      | 6  | 73  | 58  | 10.0 | 25 | 55.0  | 76  | 90  | 19 | 7  | 20 | 22 | 220                 | <b>KH10SX</b>     | 500                       |
|                 | 12      | 8  | 77  | 62  | 14.5 | 35 | 68.0  | 100 | 94  | 24 | 8  | 30 | 24 | 430                 | <b>KH12SX</b>     | 500                       |
| S <sup>4)</sup> | 14      | 10 | 81  | 65  | 14.5 | 35 | 68.0  | 100 | 100 | 24 | 8  | 30 | 27 | 440                 | <b>KH14SX</b>     | 500                       |
|                 | 16      | 12 | 87  | 70  | 17.0 | 40 | 92.0  | 112 | 106 | 30 | 10 | 35 | 30 | 649                 | <b>KH16SX</b>     | 500                       |
|                 | 20      | 16 | 90  | 69  | 20.0 | 45 | 105.0 | 166 | 112 | 36 | 11 | 45 | 36 | 900                 | <b>KH20SX</b>     | 400                       |
|                 | 25      | 20 | 107 | 83  | 24.0 | 55 | 113.0 | 187 | 131 | 41 | 14 | 45 | 46 | 1290                | <b>KH25SX</b>     | 400                       |
|                 | 30      | 25 | 120 | 93  | 26.0 | 60 | 118.0 | 187 | 146 | 50 | 14 | 55 | 50 | 1880                | <b>KH30SX</b>     | 400                       |
|                 | 38      | 25 | 134 | 102 | 26.0 | 60 | 118.0 | 187 | 163 | 55 | 14 | 55 | 60 | 1950                | <b>KH38SXDN25</b> | 400                       |
|                 | 38      | 32 | 127 | 95  | 36.5 | 80 | 180.5 | 320 | 156 | 60 | 17 | 73 | 60 | 3266                | <b>KH38SX</b>     | 315                       |

<sup>1)</sup> Pressure shown = item deliverable

<sup>3)</sup> L = light series; <sup>4)</sup> S = heavy series

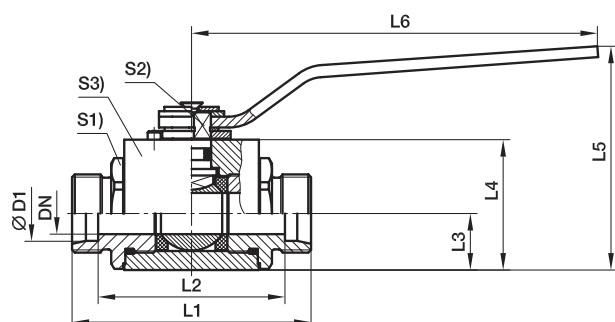
$\frac{PN \text{ (bar)}}{10} = PN \text{ (MPa)}$

Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

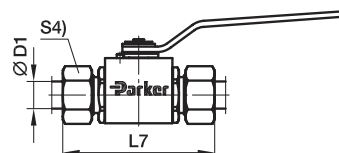
| Order code suffixes             |                             |          |                                                         |
|---------------------------------|-----------------------------|----------|---------------------------------------------------------|
| Material                        | Suffix surface and material | Example  | Standard sealing material (no additional suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                          | KH06LCFX | POM / NBR                                               |
| Steel                           | DIN 50938-FE//A/T4          | KH06LX   | POM / NBR                                               |

## KH 2-way ball valve stainless steel

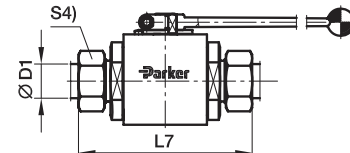
EO 24° cone end / EO 24° cone end



DN 4-25



DN 32-40



| Series          | D1 | DN    | L1  | L2  | L3   | L4    | L5    | L6  | L7  | S1 | S2 | S3  | S4 | Weight<br>g/1 piece | Order code*     | PN<br>(bar) <sup>1)</sup><br>71 |
|-----------------|----|-------|-----|-----|------|-------|-------|-----|-----|----|----|-----|----|---------------------|-----------------|---------------------------------|
| L <sup>3)</sup> | 06 | 4     | 73  | 59  | 13.7 | 30.0  | 56.5  | 76  | 88  | 22 | 7  | 30  | 14 | 383                 | <b>KH06L71X</b> | 500                             |
|                 | 08 | 6     | 73  | 59  | 13.7 | 30.0  | 56.5  | 76  | 88  | 22 | 7  | 30  | 17 | 381                 | <b>KH08L71X</b> | 500                             |
|                 | 10 | 8     | 87  | 73  | 18.0 | 40.0  | 84.5  | 130 | 102 | 30 | 8  | 40  | 19 | 809                 | <b>KH10L71X</b> | 500                             |
|                 | 12 | 10    | 87  | 73  | 18.0 | 40.0  | 84.5  | 130 | 102 | 30 | 8  | 40  | 22 | 821                 | <b>KH12L71X</b> | 500                             |
|                 | 15 | 12    | 91  | 77  | 21.0 | 45.0  | 90.0  | 130 | 107 | 32 | 10 | 45  | 27 | 1020                | <b>KH15L71X</b> | 500                             |
|                 | 18 | 16/12 | 91  | 76  | 21.0 | 45.0  | 90.0  | 130 | 108 | 32 | 10 | 45  | 32 | 1037                | <b>KH18L71X</b> | 500                             |
|                 | 22 | 20    | 105 | 87  | 31.0 | 65.0  | 115.0 | 185 | 119 | 46 | 14 | 65  | 36 | 1610                | <b>KH22L71X</b> | 420                             |
|                 | 28 | 25    | 112 | 92  | 38.0 | 75.0  | 125.0 | 185 | 125 | 50 | 14 | 75  | 41 | 2032                | <b>KH28L71X</b> | 420                             |
|                 | 35 | 32    | 145 | 105 | 45.0 | 93.2  | 175.0 | 320 | 148 | 70 | 19 | 100 | 50 | 4780                | <b>KH35L71X</b> | 420                             |
|                 | 42 | 40    | 150 | 114 | 52.5 | 104.4 | 186.0 | 320 | 159 | 80 | 19 | 110 | 60 | 7754                | <b>KH42L71X</b> | 420                             |
| S <sup>4)</sup> | 08 | 4     | 76  | 62  | 13.7 | 30.0  | 56.5  | 76  | 91  | 22 | 7  | 30  | 19 | 392                 | <b>KH08S71X</b> | 500                             |
|                 | 10 | 6     | 76  | 61  | 13.7 | 30.0  | 56.5  | 76  | 93  | 22 | 7  | 30  | 22 | 460                 | <b>KH10S71X</b> | 500                             |
|                 | 12 | 8     | 89  | 74  | 18.0 | 40.0  | 84.5  | 130 | 106 | 30 | 8  | 40  | 24 | 840                 | <b>KH12S71X</b> | 500                             |
|                 | 14 | 10    | 93  | 77  | 18.0 | 40.0  | 84.5  | 130 | 112 | 30 | 8  | 40  | 27 | 847                 | <b>KH14S71X</b> | 500                             |
|                 | 16 | 12    | 96  | 79  | 21.0 | 45.0  | 90.0  | 130 | 115 | 32 | 10 | 45  | 30 | 1055                | <b>KH16S71X</b> | 500                             |
|                 | 20 | 16/12 | 99  | 78  | 21.0 | 45.0  | 90.0  | 130 | 121 | 32 | 10 | 45  | 36 | 1079                | <b>KH20S71X</b> | 500                             |
|                 | 25 | 20    | 113 | 86  | 31.0 | 65.0  | 115.0 | 185 | 134 | 46 | 14 | 65  | 46 | 1720                | <b>KH25S71X</b> | 420                             |
|                 | 30 | 25    | 124 | 93  | 38.0 | 75.0  | 125.0 | 185 | 146 | 50 | 14 | 75  | 50 | 2150                | <b>KH30S71X</b> | 420                             |
|                 | 38 | 32    | 145 | 100 | 45.0 | 93.2  | 175.0 | 320 | 161 | 70 | 19 | 100 | 60 | 6066                | <b>KH38S71X</b> | 420                             |

<sup>1)</sup> Pressure shown = item deliverable

<sup>3)</sup> L = light series; <sup>4)</sup> S = heavy series

$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$

Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

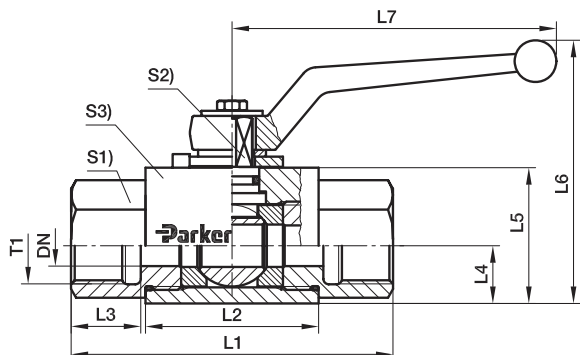
\*Please add the **suffixes** below according to the material/ surface required.

| Order code suffixes |                             |          |                                                         |
|---------------------|-----------------------------|----------|---------------------------------------------------------|
| Material            | Suffix surface and material | Example  | Standard sealing material (no additional suffix needed) |
| Stainless Steel     | without                     | KH06L71X | POM / NBR                                               |

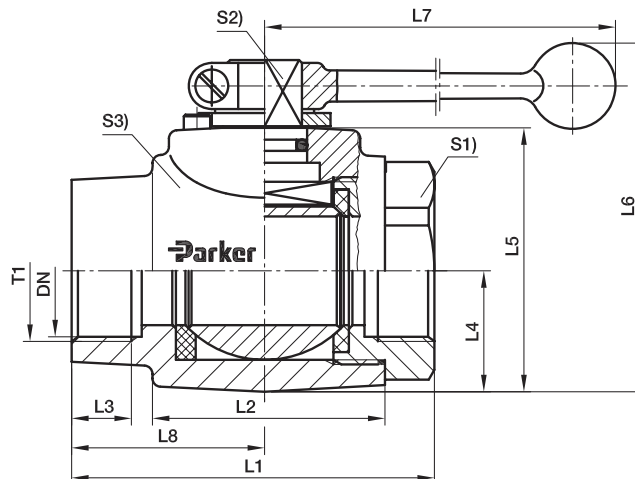
## KH 2-way BSPP ball valve steel

Female BSPP thread (ISO 1179-1) / Female BSPP thread (ISO 1179-1)

DN 4-25



DN 32-40



| T1      | DN | L1  | L2   | L3   | L4   | L5  | L6    | L7  | L8   | S1 | S2 | S3 | Weight<br>g/1 piece | Order code*        | PN<br>(bar) <sup>1)</sup> |
|---------|----|-----|------|------|------|-----|-------|-----|------|----|----|----|---------------------|--------------------|---------------------------|
| G 1/8   | 4  | 69  | 36.0 | 12.0 | 10.0 | 25  | 55.0  | 76  | —    | 19 | 7  | 20 | 220                 | <b>KH1/8X</b>      | 500                       |
| G 1/4   | 6  | 69  | 36.0 | 12.0 | 10.0 | 25  | 55.0  | 76  | —    | 19 | 7  | 20 | 210                 | <b>KH1/4X</b>      | 500                       |
| G 3/8   | 10 | 73  | 45.0 | 14.0 | 14.5 | 35  | 68.0  | 100 | —    | 24 | 8  | 30 | 430                 | <b>KH3/8X</b>      | 500                       |
| G 1/2   | 12 | 82  | 51.0 | 15.0 | 17.0 | 40  | 92.0  | 112 | —    | 30 | 10 | 35 | 670                 | <b>KH1/2X</b>      | 500                       |
| G 5/8   | 16 | 88  | 50.0 | 18.0 | 20.0 | 45  | 105.0 | 166 | —    | 36 | 11 | 45 | 973                 | <b>KH5/8X</b>      | 400                       |
| G 3/4   | 20 | 93  | 60.0 | 18.0 | 24.0 | 55  | 113.0 | 187 | —    | 41 | 14 | 45 | 1280                | <b>KH3/4X</b>      | 400                       |
| G 1     | 25 | 113 | 70.0 | 20.0 | 26.0 | 60  | 118.0 | 187 | —    | 50 | 14 | 55 | 1982                | <b>KH1X</b>        | 400                       |
| G 1 1/4 | 32 | 110 | 70.0 | 20.0 | 36.5 | 80  | 180.5 | 320 | 58.5 | 60 | 17 | 73 | 2620                | <b>KH11/4X</b>     | 315                       |
| G 1 1/4 | 25 | 134 | 70.0 | 20.0 | 26.0 | 60  | 118.0 | 187 | —    | 50 | 14 | 55 | 2066                | <b>KH11/4DN25X</b> | 400                       |
| G 1 1/2 | 40 | 114 | 75.0 | 22.0 | 42.5 | 90  | 190.5 | 320 | 57.0 | 70 | 17 | 85 | 3989                | <b>KH11/2X</b>     | 315                       |
| G 1 1/2 | 25 | 139 | 70.0 | 22.0 | 26.0 | 60  | 118.0 | 187 | —    | 55 | 14 | 55 | 2200                | <b>KH11/2DN25X</b> | 400                       |
| G 2     | 50 | 129 | 91.5 | 27.5 | 49.5 | 104 | 180.0 | 320 | 65.0 | 85 | 17 | 99 | 5020                | <b>KH2X</b>        | 400                       |

<sup>1)</sup> Pressure shown = item deliverable

$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$

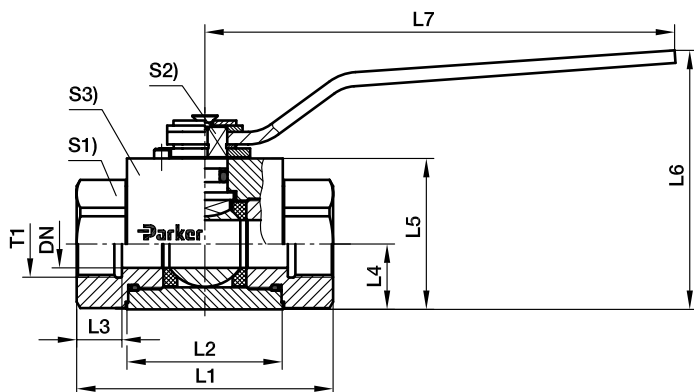
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

| Order code suffixes             |                                   |          |                                                                  |
|---------------------------------|-----------------------------------|----------|------------------------------------------------------------------|
| Material                        | Suffix<br>surface<br>and material | Example  | Standard<br>sealing material<br>(no additional<br>suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                                | KH1/8CFX | POM / NBR                                                        |
| Steel                           | DIN 50938-FE//A/T4                | KH1/8X   | POM / NBR                                                        |

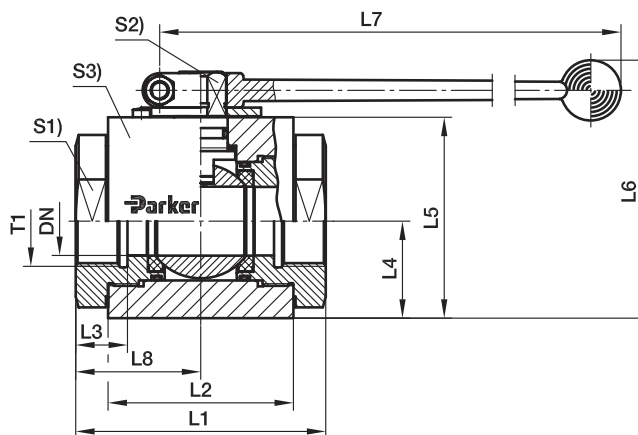
## KH 2-way BSPP ball valve stainless steel

Female BSPP thread (ISO 1179-1) / Female BSPP thread (ISO 1179-1)

DN 4-25



DN 32-40



| T1      | DN | L1  | L2 | L3 | L4   | L5    | L6    | L7  | L8 | S1 | S2 | S3  | Weight<br>g/1 piece | Order code*      | PN(bar) <sup>1)</sup><br>71 |
|---------|----|-----|----|----|------|-------|-------|-----|----|----|----|-----|---------------------|------------------|-----------------------------|
| G 1/8   | 4  | 69  | 41 | 11 | 13.7 | 30.0  | 56.5  | 76  | —  | 22 | 7  | 30  | 421                 | <b>KH1/871X</b>  | 500                         |
| G 1/4   | 6  | 75  | 41 | 14 | 13.7 | 30.0  | 56.5  | 76  | —  | 22 | 7  | 30  | 422                 | <b>KH1/471X</b>  | 500                         |
| G 3/8   | 10 | 86  | 53 | 14 | 18.0 | 40.0  | 84.5  | 130 | —  | 30 | 8  | 40  | 891                 | <b>KH3/871X</b>  | 500                         |
| G 1/2   | 12 | 92  | 55 | 16 | 21.0 | 45.0  | 90.0  | 130 | —  | 32 | 10 | 45  | 1093                | <b>KH1/271X</b>  | 500                         |
| G 3/4   | 20 | 111 | 65 | 18 | 31.0 | 65.0  | 115.0 | 185 | —  | 46 | 14 | 65  | 1944                | <b>KH3/471X</b>  | 420                         |
| G 1     | 25 | 122 | 71 | 20 | 38.0 | 75.0  | 125.0 | 185 | —  | 50 | 14 | 75  | 2200                | <b>KH171X</b>    | 420                         |
| G 1 1/4 | 32 | 110 | 86 | 24 | 45.0 | 93.2  | 175.0 | 320 | 55 | 70 | 19 | 100 | 5300                | <b>KH11/471X</b> | 420                         |
| G 1 1/2 | 40 | 120 | 92 | 26 | 52.2 | 104.4 | 186.0 | 320 | 60 | 80 | 19 | 110 | 7230                | <b>KH11/271X</b> | 420                         |

<sup>1)</sup> Pressure shown = item deliverable

$\frac{PN \text{ (bar)}}{10} = PN \text{ (MPa)}$

Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page I7.

\*Please add the **suffixes** below according to the material/surface required.

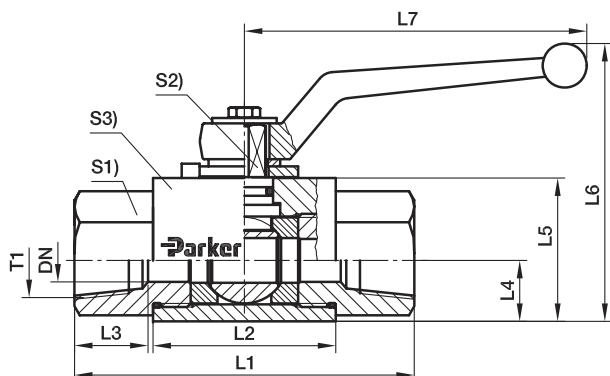
| Order code suffixes |                             |          |                                                         |
|---------------------|-----------------------------|----------|---------------------------------------------------------|
| Material            | Suffix surface and material | Example  | Standard sealing material (no additional suffix needed) |
| Stainless Steel     | without                     | KH1/871X | POM / NBR                                               |



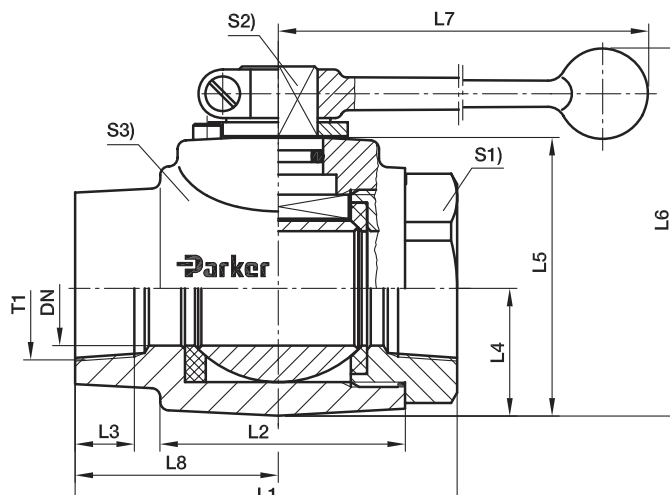
## KH 2-way NPT ball valve steel

Female NPT thread (SAE 476) / Female NPT thread (SAE 476)

DN 4-25



DN 32-40



| T1             | DN | L1  | L2 | L3   | L4   | L5 | L6    | L7  | L8   | S1 | S2 | S3 | Weight<br>g/1 piece | Order code*       | PN<br>(bar) <sup>1)</sup> |
|----------------|----|-----|----|------|------|----|-------|-----|------|----|----|----|---------------------|-------------------|---------------------------|
| 1/8-27 NPT     | 4  | 69  | 36 | 7.0  | 10.0 | 25 | 55.0  | 76  | —    | 19 | 7  | 20 | 225                 | <b>KH1/8NPTX</b>  | 500                       |
| 1/4-18 NPT     | 6  | 69  | 36 | 10.0 | 10.0 | 25 | 55.0  | 76  | —    | 19 | 7  | 20 | 210                 | <b>KH1/4NPTX</b>  | 500                       |
| 3/8-18 NPT     | 10 | 73  | 45 | 10.4 | 14.5 | 35 | 68.0  | 100 | —    | 24 | 8  | 30 | 430                 | <b>KH3/8NPTX</b>  | 500                       |
| 1/2-14 NPT     | 12 | 82  | 51 | 13.6 | 17.0 | 40 | 92.0  | 112 | —    | 30 | 10 | 35 | 670                 | <b>KH1/2NPTX</b>  | 500                       |
| 3/4-14 NPT     | 20 | 93  | 60 | 14.0 | 24.0 | 55 | 113.0 | 187 | —    | 41 | 14 | 45 | 1280                | <b>KH3/4NPTX</b>  | 400                       |
| 1-11.5 NPT     | 25 | 113 | 70 | 16.8 | 26.0 | 60 | 118.0 | 187 | —    | 50 | 14 | 55 | 1970                | <b>KH1NPTX</b>    | 400                       |
| 1 1/4-11.5 NPT | 32 | 110 | 70 | 17.3 | 36.5 | 80 | 180.5 | 320 | 58.5 | 60 | 17 | 73 | 3074                | <b>KH11/4NPTX</b> | 315                       |
| 1 1/2-11.5 NPT | 40 | 114 | 75 | 17.3 | 42.5 | 90 | 190.5 | 320 | 57.0 | 70 | 17 | 85 | 3976                | <b>KH11/2NPTX</b> | 315                       |

<sup>1)</sup> Pressure shown = item deliverable

$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$

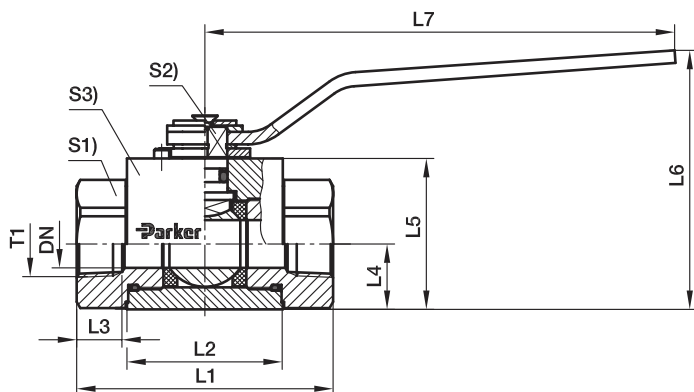
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page I7.

| Order code suffixes             |                                   |             |                                                                  |
|---------------------------------|-----------------------------------|-------------|------------------------------------------------------------------|
| Material                        | Suffix<br>surface<br>and material | Example     | Standard<br>sealing material<br>(no additional<br>suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                                | KH1/8NPTCFX | POM / NBR                                                        |
| Steel                           | DIN 50938-FE//A/T4                | KH1/8NPTX   | POM / NBR                                                        |

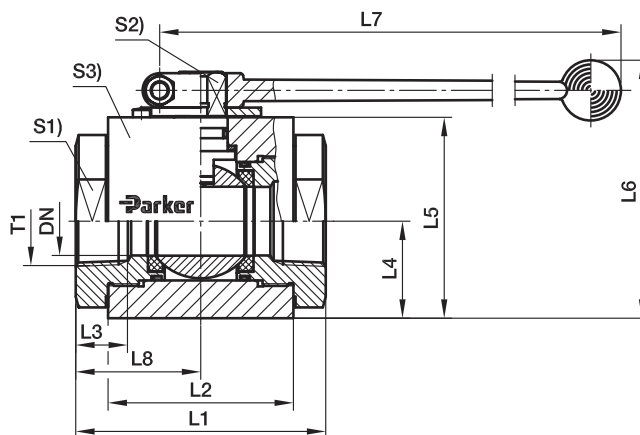
## KH 2-way NPT ball valve stainless steel

Female NPT thread (SAE 476) / Female NPT thread (SAE 476)

DN 4-25



DN 32-40



| T1             | DN | L1  | L2 | L3   | L4   | L5    | L6    | L7  | L8 | S1 | S2 | S3  | Weight<br>g/1 piece | Order code*          | PN (bar) <sup>1)</sup><br>71 |
|----------------|----|-----|----|------|------|-------|-------|-----|----|----|----|-----|---------------------|----------------------|------------------------------|
| 1/8-27 NPT     | 4  | 82  | 41 | 6.9  | 13.7 | 30.0  | 56.5  | 76  |    | 22 | 7  | 30  | 461                 | <b>KH1/8NPT71X</b>   | 500                          |
| 1/4-18 NPT     | 6  | 82  | 41 | 10.0 | 13.7 | 30.0  | 56.5  | 76  |    | 22 | 7  | 30  | 441                 | <b>KH1/4NPT71X</b>   | 500                          |
| 3/8-18 NPT     | 10 | 95  | 53 | 10.3 | 18.0 | 40.0  | 84.5  | 130 |    | 30 | 8  | 40  | 943                 | <b>KH3/8NPT71X</b>   | 500                          |
| 1/2-14 NPT     | 12 | 108 | 55 | 13.6 | 21.0 | 45.0  | 90.0  | 130 |    | 32 | 10 | 45  | 1177                | <b>KH1/2NPT71X</b>   | 500                          |
| 3/4-14 NPT     | 20 | 111 | 65 | 14.1 | 31.0 | 65.0  | 115.0 | 185 |    | 46 | 14 | 65  | 2054                | <b>KH3/4NPT71X</b>   | 420                          |
| 1-11.5 NPT     | 25 | 122 | 71 | 16.8 | 38.0 | 75.0  | 125.0 | 185 |    | 50 | 14 | 75  | 2451                | <b>KH1NPT71X</b>     | 420                          |
| 1 1/4-11.5 NPT | 32 | 110 | 86 | 17.3 | 45.0 | 93.2  | 175.0 | 320 | 55 | 70 | 19 | 100 | 5300                | <b>KH1 1/4NPT71X</b> | 420                          |
| 1 1/2-11.5 NPT | 40 | 120 | 92 | 17.7 | 52.2 | 104.4 | 186.0 | 320 | 60 | 80 | 19 | 110 | 7230                | <b>KH1 1/2NPT71X</b> | 420                          |

<sup>1)</sup> Pressure shown = item deliverable

$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$

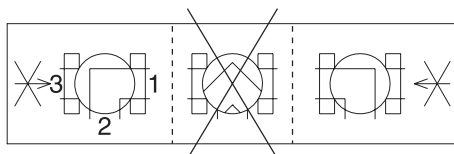
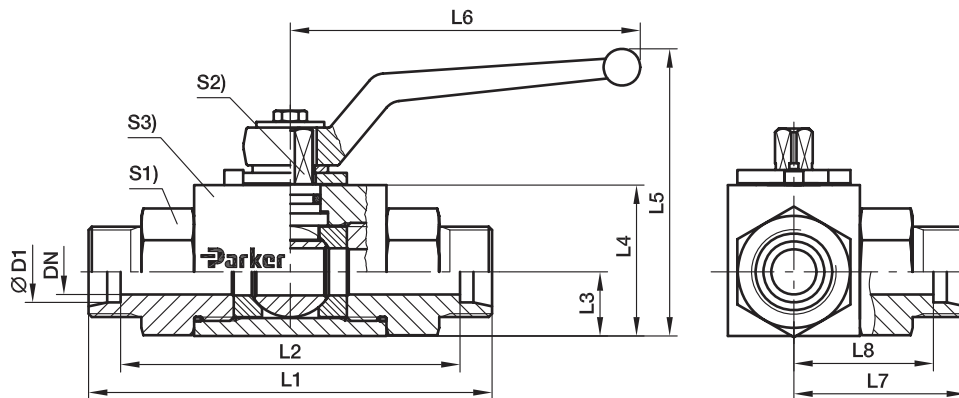
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page I7.

\*Please add the **suffixes** below according to the material/surface required.

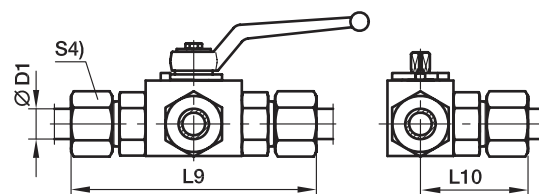
| Order code suffixes |                             |             |                                                         |
|---------------------|-----------------------------|-------------|---------------------------------------------------------|
| Material            | Suffix surface and material | Example     | Standard sealing material (no additional suffix needed) |
| Stainless steel     | without                     | KH1/8NPT71X | POM / NBR                                               |

## KH 3-way compact ball valve steel

EO 24° cone end / EO 24° cone end / EO 24° cone end



### L-Version



| Series          | D1<br> | DN | L1  | L2 | L3   | L4 | L5    | L6  | L7   | L8   | L9  | L10  | S1 | S2 | S3 | S4 | Weight<br>g/1 piece | Order code* | PN<br>(bar) <sup>1)</sup> |
|-----------------|--------|----|-----|----|------|----|-------|-----|------|------|-----|------|----|----|----|----|---------------------|-------------|---------------------------|
| L <sup>3)</sup> | 06     | 4  | 67  | 53 | 15.0 | 30 | 59.5  | 76  | 33.5 | 26.5 | 82  | 41.0 | 19 | 7  | 30 | 14 | 317                 | KH3/2-06LX  | 500                       |
|                 | 08     | 6  | 67  | 53 | 15.0 | 30 | 59.5  | 76  | 33.5 | 26.5 | 82  | 41.0 | 19 | 7  | 30 | 17 | 214                 | KH3/2-08LX  | 500                       |
|                 | 10     | 8  | 75  | 61 | 14.5 | 35 | 67.5  | 100 | 37.5 | 30.5 | 90  | 45.0 | 24 | 8  | 40 | 19 | 445                 | KH3/2-10LX  | 500                       |
|                 | 12     | 10 | 75  | 61 | 14.5 | 35 | 67.5  | 100 | 37.5 | 30.5 | 90  | 45.0 | 24 | 8  | 40 | 22 | 537                 | KH3/2-12LX  | 500                       |
|                 | 15     | 12 | 83  | 69 | 22.0 | 45 | 96.5  | 112 | 41.5 | 34.5 | 99  | 49.5 | 30 | 10 | 45 | 27 | 678                 | KH3/2-15LX  | 500                       |
|                 | 18     | 16 | 82  | 67 | 25.0 | 50 | 110.0 | 166 | 41.0 | 33.5 | 99  | 49.5 | 36 | 11 | 50 | 32 | 850                 | KH3/2-18LX  | 400                       |
|                 | 22     | 20 | 99  | 84 | 29.0 | 60 | 126.0 | 187 | 49.5 | 42.0 | 116 | 58.0 | 41 | 14 | 55 | 36 | 1340                | KH3/2-22LX  | 400                       |
|                 | 28     | 25 | 108 | 93 | 31.0 | 65 | 131.0 | 187 | 54.0 | 46.5 | 126 | 63.0 | 50 | 14 | 65 | 41 | 2274                | KH3/2-28LX  | 400                       |
|                 | 08     | 4  | 73  | 59 | 15.0 | 30 | 59.5  | 76  | 36.5 | 29.5 | 88  | 44.0 | 19 | 7  | 30 | 19 | 350                 | KH3/2-08SX  | 500                       |
|                 | 10     | 6  | 73  | 58 | 15.0 | 30 | 59.5  | 76  | 36.5 | 29.0 | 90  | 45.0 | 19 | 7  | 30 | 22 | 300                 | KH3/2-10SX  | 500                       |
| S <sup>4)</sup> | 12     | 8  | 77  | 62 | 14.5 | 35 | 67.5  | 100 | 38.5 | 31.0 | 94  | 47.0 | 24 | 8  | 40 | 24 | 469                 | KH3/2-12SX  | 500                       |
|                 | 14     | 10 | 81  | 65 | 14.5 | 35 | 67.5  | 100 | 40.5 | 32.5 | 100 | 50.0 | 24 | 8  | 40 | 27 | 500                 | KH3/2-14SX  | 500                       |
|                 | 16     | 12 | 87  | 70 | 22.0 | 45 | 96.5  | 112 | 43.5 | 35.0 | 106 | 53.0 | 30 | 10 | 45 | 30 | 909                 | KH3/2-16SX  | 500                       |
|                 | 20     | 16 | 90  | 69 | 25.0 | 50 | 110.0 | 166 | 45.0 | 34.5 | 112 | 56.0 | 36 | 11 | 50 | 36 | 949                 | KH3/2-20SX  | 400                       |
|                 | 25     | 20 | 107 | 83 | 29.0 | 60 | 126.0 | 187 | 53.5 | 41.5 | 131 | 65.5 | 41 | 14 | 55 | 46 | 1714                | KH3/2-25SX  | 400                       |
|                 | 30     | 25 | 120 | 93 | 31.0 | 65 | 131.0 | 187 | 60.0 | 46.5 | 146 | 73.0 | 50 | 14 | 65 | 50 | 2462                | KH3/2-30SX  | 400                       |

<sup>1)</sup> Pressure shown = item deliverable

<sup>3)</sup> L = light series; <sup>4)</sup> S = heavy series

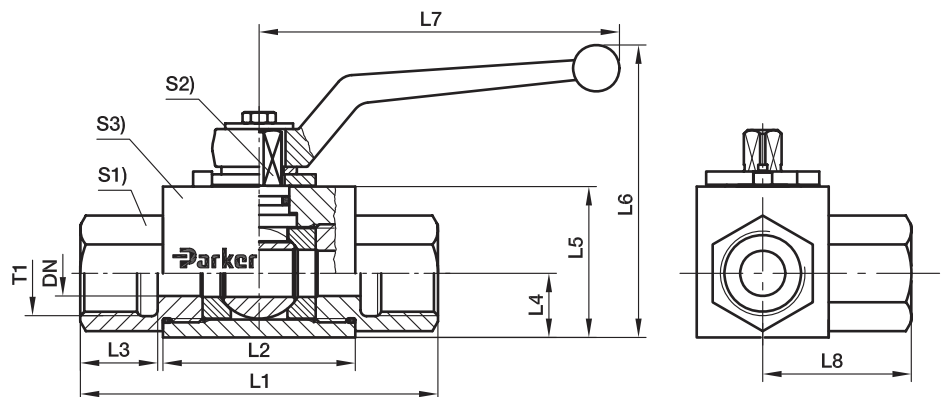
PN (bar) = PN (MPa)  
10

Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

| Order code suffixes             |                                   |              |                                                                  |
|---------------------------------|-----------------------------------|--------------|------------------------------------------------------------------|
| Material                        | Suffix<br>surface<br>and material | Example      | Standard<br>sealing material<br>(no additional<br>suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                                | KH3/2-06LCFX | POM / NBR                                                        |
| Steel                           | DIN 50938-FE//A/T4                | KH3/2-06LX   | POM / NBR                                                        |

## KH 3-way compact BSPP ball valve steel

Female BSPP thread (ISO 1179-1) / Female BSPP thread (ISO 1179-1) /  
Female BSPP thread (ISO 1179-1)

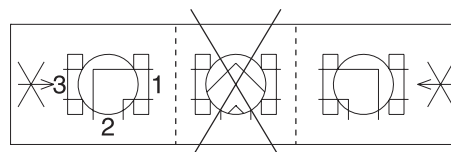


| T1    | DN | L1  | L2 | L3 | L4   | L5 | L6  | L7  | L8   | S1 | S2 | S3 | Weight<br>g/1 piece | Order code*       | PN<br>(bar) <sup>1)</sup> |
|-------|----|-----|----|----|------|----|-----|-----|------|----|----|----|---------------------|-------------------|---------------------------|
| G 1/8 | 4  | 69  | 36 | 12 | 15.0 | 30 | 55  | 76  | 34.5 | 19 | 7  | 30 | 270                 | <b>KH3/2-1/8X</b> | 500                       |
| G 1/4 | 6  | 69  | 36 | 12 | 15.0 | 30 | 55  | 76  | 34.5 | 19 | 7  | 30 | 342                 | <b>KH3/2-1/4X</b> | 500                       |
| G 3/8 | 10 | 73  | 45 | 14 | 14.5 | 35 | 68  | 100 | 36.5 | 24 | 8  | 40 | 563                 | <b>KH3/2-3/8X</b> | 500                       |
| G 1/2 | 12 | 82  | 51 | 15 | 22.0 | 45 | 92  | 112 | 41.0 | 30 | 10 | 45 | 932                 | <b>KH3/2-1/2X</b> | 500                       |
| G 3/4 | 20 | 93  | 60 | 18 | 29.0 | 60 | 113 | 187 | 48.0 | 41 | 14 | 55 | 1724                | <b>KH3/2-3/4X</b> | 400                       |
| G 1   | 25 | 118 | 70 | 20 | 31.0 | 65 | 118 | 187 | 56.5 | 50 | 14 | 65 | 2643                | <b>KH3/2-1X</b>   | 400                       |

<sup>1)</sup> Pressure shown = item deliverable

$\frac{PN \text{ (bar)}}{10} = PN \text{ (MPa)}$

Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

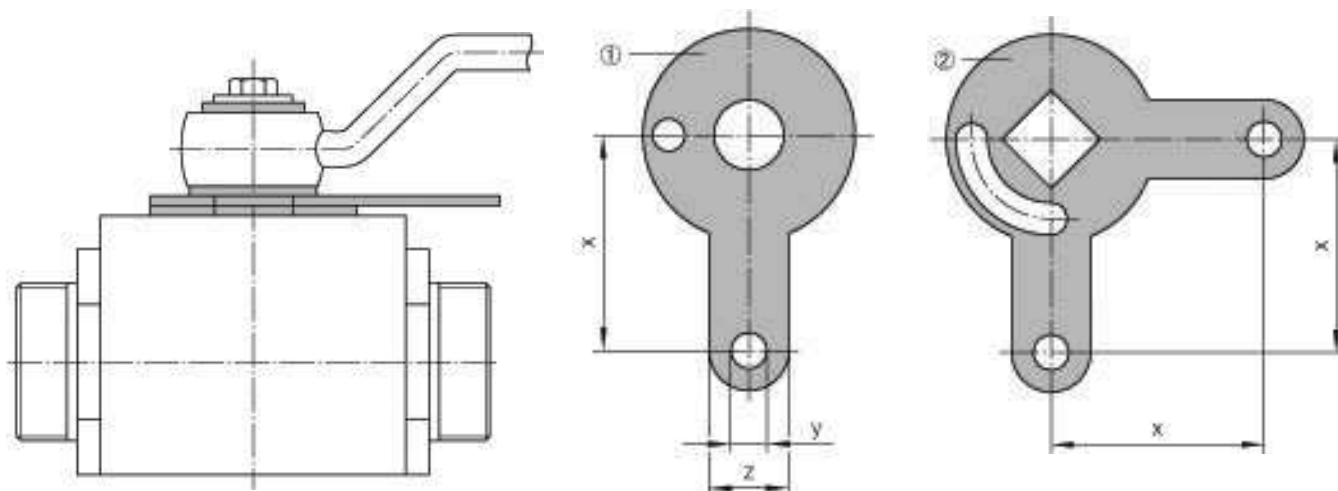


L-Version

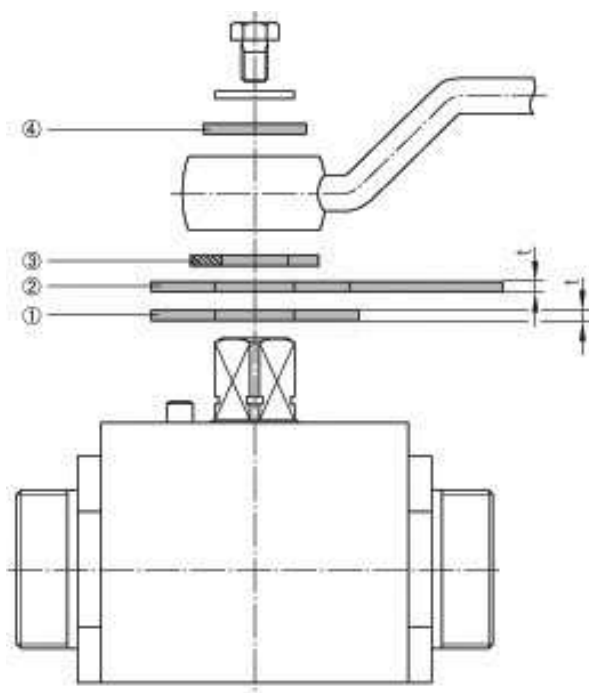
| Order code suffixes             |                                   |              |                                                                  |
|---------------------------------|-----------------------------------|--------------|------------------------------------------------------------------|
| Material                        | Suffix<br>surface<br>and material | Example      | Standard<br>sealing material<br>(no additional<br>suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                                | KH3/2-1/8CFX | POM / NBR                                                        |
| Steel                           | DIN 50938-FE//A/T4                | KH3/2-1/8X   | POM / NBR                                                        |

## KH – Locking Devices for 2/2 Way and Multiway ball valves

with floating ball – steel and stainless steel



| DN       | t    | x  | y | z  | X    | Order code<br>Steel | Order code<br>Stainless steel |
|----------|------|----|---|----|------|---------------------|-------------------------------|
| 4/6      | 0.80 | 18 | 9 | 20 | 21.5 | KHLOCKINGD.SIZE1X   | KHLOCKINGD.SIZE171X           |
| 8/10     | 1.20 | 21 | 9 | 20 | 26.5 | KHLOCKINGD.SIZE2X   | KHLOCKINGD.SIZE271X           |
| 12       | 1.20 | 24 | 9 | 20 | 29.0 | KHLOCKINGD.SIZE3X   | KHLOCKINGD.SIZE371X           |
| 16       | 1.50 | 29 | 9 | 20 | –    | KHLOCKINGD.SIZE4X   | –                             |
| 20/25    | 1.50 | 34 | 9 | 20 | 44.0 | KHLOCKINGD.SIZE5X   | KHLOCKINGD.SIZE571X           |
| 32/40/50 | 1.75 | 54 | 9 | 20 | 54.0 | KHLOCKINGD.SIZE6X   | KHLOCKINGD.SIZE671X           |

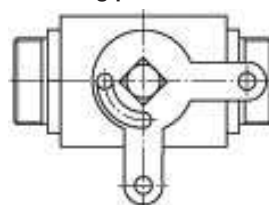


### mounting kit:

- ① = mounting plate
- ② = limit stop plate
- ③ = safety ring
- ④ = disk

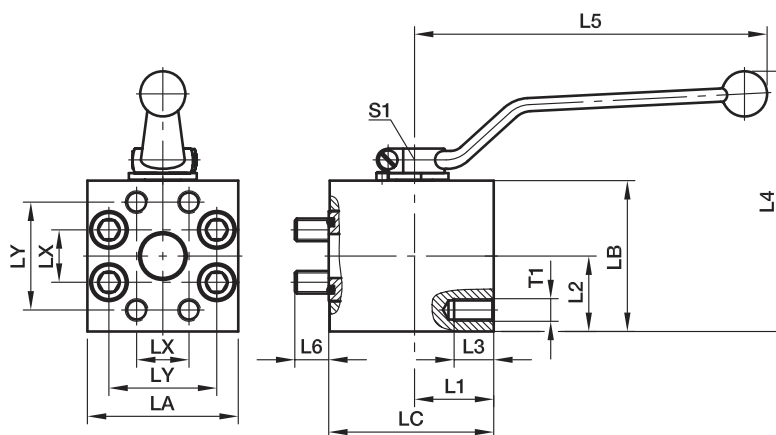
Pos. ④ only for DN32/40/50

### Switching positions



## KH-B1V-S Ball valve with SAE Flange connection (6000 PSI)

SAE Flange (ISO 6162-1/-2) / Ball valve 2/2 way steel



### 6000 PSI Series

| Nom. flange size |             | L1   | L2   | L3 | L4  | L5  | L6   | LX   | LY   | LA  | LB  | LC    | S1 | T1   | Screws<br>(metr.) | O-ring     | Weight<br>(steel)<br>kg/piece | Order code* | PN<br>(bar) <sup>1)</sup><br>S |
|------------------|-------------|------|------|----|-----|-----|------|------|------|-----|-----|-------|----|------|-------------------|------------|-------------------------------|-------------|--------------------------------|
| SAE<br>(in)      | ISO<br>(DN) |      |      |    |     |     |      |      |      |     |     |       |    |      |                   |            |                               |             |                                |
| 1/2              | 12          | 32.0 | 28.5 | 19 | 107 | 112 | 13.5 | 18.2 | 40.5 | 60  | 55  | 60.5  | 10 | M 8  | M 08×65           | 18.66×3.53 | 1.29                          | KH12B1V62   | 420                            |
| 3/4              | 20          | 31.0 | 35.0 | 16 | 134 | 187 | 14.0 | 23.8 | 50.8 | 70  | 70  | 62.5  | 14 | M10  | M 10×65           | 25.00×3.53 | 2.15                          | KH20B1V63   | 420                            |
| 1                | 25          | 39.0 | 40.0 | 21 | 144 | 187 | 18.0 | 27.8 | 57.2 | 80  | 80  | 75.5  | 14 | M12  | M 12×80           | 32.92×3.53 | 2.95                          | KH25B1V64   | 420                            |
| 1 1/4            | 32          | 43.5 | 50.0 | 23 | 129 | 320 | 18.0 | 31.8 | 66.7 | 100 | 100 | 82.0  | 17 | M12* | M 12×85           | 37.70×3.53 | 6.21                          | KH32B1V65   | 420                            |
| 1 1/2            | 40          | 53.5 | 60.0 | 26 | 149 | 320 | 18.0 | 36.5 | 79.4 | 120 | 120 | 99.0  | 17 | M16  | M 16×100          | 47.22×3.53 | 9.50                          | KH40B1V66   | 420                            |
| 2                | 50          | 61.0 | 61.5 | 34 | 153 | 320 | 22.0 | 44.5 | 96.8 | 134 | 124 | 109.5 | 17 | M20  | M 20×100          | 56.74×3.53 | 12.80                         | KH50B1V68   | 420                            |

<sup>1)</sup> Pressure shown = Item deliverable

The pressure specification PN for quarter turn ball valves applies to the design factor 1.5 (according DIN 3230 T5 and ISO 5208).

$$\frac{PN \text{ (bar)}}{10} = PN \text{ (MPa)}$$

\*M14 deliverable on request. **KH32B1V65/14**

### Materials:

Body made of steel, coating DIN 50938-FE/A/T4, ball of hard chrome plated carbon steel, stem of zinc plated steel.

### Seals:

Ball seat of POM (e.g. Delrin), stem seal of NBR (e.g. Perbunan).

### Applications:

Suitable for petroleum-based hydraulic fluid, lubricants and fuel oil. For air applications suitable up to 100 bar.

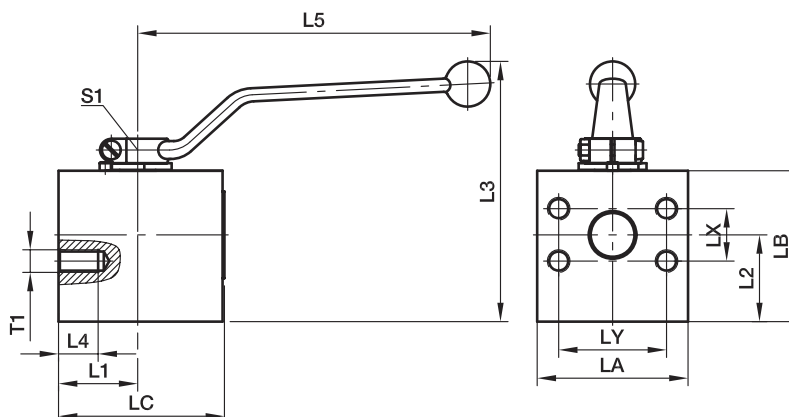
### Temperature range:

-10 up to +100° C

| Order code suffixes             |                             |              |                                                         |
|---------------------------------|-----------------------------|--------------|---------------------------------------------------------|
| Material                        | Suffix surface and material | Example      | Standard sealing material (no additional suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                          | KH12B1V62CFX | POM / NBR                                               |
| Steel                           | DIN 50938-FE//A/T4          | KH12B1V62X   | POM / NBR                                               |

## KH-B2V-S Ball valve with SAE Flange connection (block 3000/6000 PSI)

SAE Flange / Ball valve 2/2 way steel  
(ISO 6162-1/-2)



### 3000 PSI Series

| Nom. flange size |             | T1      |             | L1   | L2 | L3  | L4 | L5  | LX   | LY   | LA | LB | LC | S1 | Weight<br>(steel)<br>kg/piece | Order code* | PN<br>(bar) <sup>1)</sup><br>S |
|------------------|-------------|---------|-------------|------|----|-----|----|-----|------|------|----|----|----|----|-------------------------------|-------------|--------------------------------|
| SAE<br>(in)      | ISO<br>(DN) | (metr.) | (in)        |      |    |     |    |     |      |      |    |    |    |    |                               |             |                                |
| 1/2              | 12          | M 8     | 5/16-18 UNC | 23.5 | 22 | 97  | 17 | 112 | 17.5 | 38.1 | 55 | 45 | 60 | 10 | 1.1                           | KH12B2V32   | 210                            |
| 3/4              | 20          | M10     | 3/8-16 UNC  | 39.5 | 39 | 128 | 21 | 187 | 22.2 | 47.6 | 70 | 70 | 80 | 14 | 2.8                           | KH20B2V33   | 210                            |
| 1                | 25          | M12     | 3/8-16 UNC  | 42.0 | 46 | 138 | 19 | 187 | 26.2 | 52.4 | 80 | 80 | 88 | 14 | 4.0                           | KH25B2V34   | 210                            |

### 6000 PSI Series

|     |    |     |             |      |    |     |    |     |      |      |    |    |    |    |     |           |     |
|-----|----|-----|-------------|------|----|-----|----|-----|------|------|----|----|----|----|-----|-----------|-----|
| 1/2 | 12 | M 8 | 5/16-18 UNC | 23.5 | 22 | 97  | 17 | 112 | 18.2 | 40.5 | 55 | 45 | 60 | 10 | 1.1 | KH12B2V62 | 420 |
| 3/4 | 20 | M10 | 3/8-16 UNC  | 39.5 | 39 | 128 | 21 | 187 | 23.8 | 50.8 | 70 | 70 | 80 | 14 | 2.8 | KH20B2V63 | 420 |
| 1   | 25 | M12 | 7/16-16 UNC | 42.0 | 46 | 138 | 19 | 187 | 27.8 | 57.2 | 80 | 80 | 88 | 14 | 4.0 | KH25B2V64 | 420 |

<sup>1)</sup> Pressure shown = Item deliverable

The pressure specification PN for quarter turn ball valves applies to the design factor 1.5 (according DIN 3230 T5 and ISO 5208).

$$\frac{PN \text{ (bar)}}{10} = PN \text{ (MPa)}$$

#### Materials:

Body made of steel, coating DIN 50938-FE/A/T4,  
ball of hard chrome plated carbon steel, stem of zinc plated steel.

#### Seals:

Ball seat of POM (e.g. Delrin), stem seal of NBR (e.g. Perbunan).

#### Applications:

Suitable for petroleum-based hydraulic fluid, lubricants and fuel oil.  
For air applications suitable up to 100 bar.

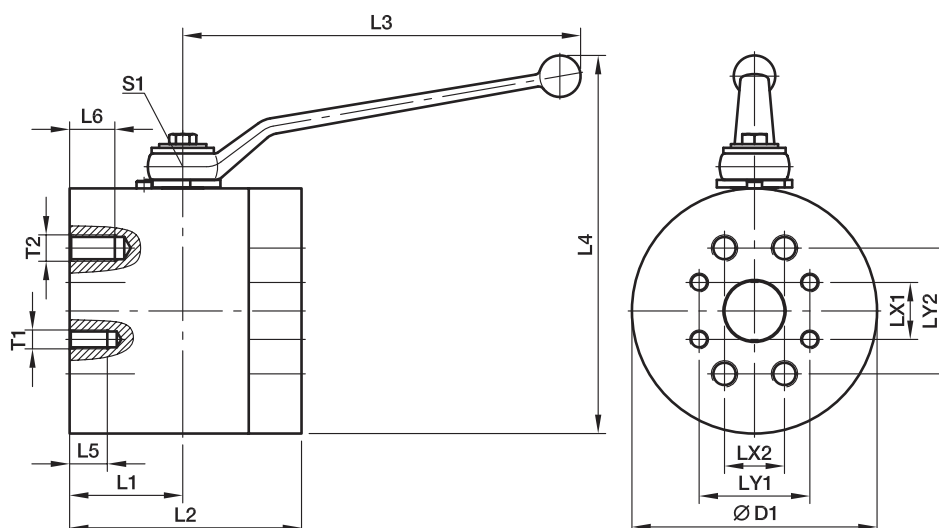
#### Temperature range:

-10 up to +100° C

| Order code suffixes             |                                   |              |                                                                  |
|---------------------------------|-----------------------------------|--------------|------------------------------------------------------------------|
| Material                        | Suffix<br>surface<br>and material | Example      | Standard<br>sealing material<br>(no additional<br>suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                                | KH12B2V32CFX | POM / NBR                                                        |
| Steel                           | DIN 50938-FE//A/T4                | KH12B2V32X   | POM / NBR                                                        |

## KH-B3V-S Ball valve with SAE Flange connection

SAE Flange / Ball valve 2/2 way steel  
(ISO 6162-1/-2)



### 3000 PSI Series / 6000 PSI Series

| Nom. flange size |             | D1  | L1 | L2  | L3  | L4    | S1 | 3000 PSI Connection |         |      |      |    |     | 6000 PSI Connection |        |      |      |    |     | Weight<br>(steel)<br>kg/piece | Order<br>code* | PN<br>(bar) <sup>1)</sup> |
|------------------|-------------|-----|----|-----|-----|-------|----|---------------------|---------|------|------|----|-----|---------------------|--------|------|------|----|-----|-------------------------------|----------------|---------------------------|
| SAE<br>(in)      | ISO<br>(DN) |     |    |     |     |       |    | T1                  |         |      |      |    |     | T2                  |        |      |      |    |     |                               |                |                           |
|                  |             |     |    |     |     |       |    | UNC                 | LX1     | LY1  | L5   | PN | UNC | LX2                 | LY2    | L6   | PN   |    |     |                               |                |                           |
| 1 1/4            | 32          | 130 | 60 | 123 | 320 | 158.5 | 17 | M12                 | 7/16-14 | 30.2 | 58.7 | 27 | 276 | M14                 | 1/2-13 | 31.8 | 66.7 | 24 | 420 | 11.3                          | KH32B3V35      | 420                       |
| 1 1/2            | 40          | 140 | 61 | 126 | 320 | 168.5 | 17 | M12                 | 1/2-13  | 35.7 | 69.9 | 25 | 207 | M16                 | 5/8-11 | 36.5 | 79.4 | 26 | 420 | 13.1                          | KH40B3V36      | 420                       |
| 2                | 50          | 160 | 79 | 158 | 320 | 178.5 | 17 | M12                 | 1/2-13  | 42.8 | 77.8 | 25 | 207 | M20                 | 3/4-10 | 44.4 | 96.8 | 34 | 420 | 21.2                          | KH50B3V38      | 420                       |

<sup>1)</sup> Pressure shown = Item deliverable

The pressure specification PN for quarter turn ball valves applies to the design factor 1.5 (according DIN 3230 T5 and ISO 5208).

$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

### Materials:

Body made of steel, coating DIN 50938-FE/A/T4,  
ball of hard chrome plated carbon steel, stem of zinc plated steel.

### Seals:

Ball seat of POM (e.g. Delrin), stem seal of NBR (e.g. Perbunan).

### Applications:

Suitable for petroleum-based hydraulic fluid, lubricants and fuel oil.  
For air applications suitable up to 100 bar.

### Temperature range:

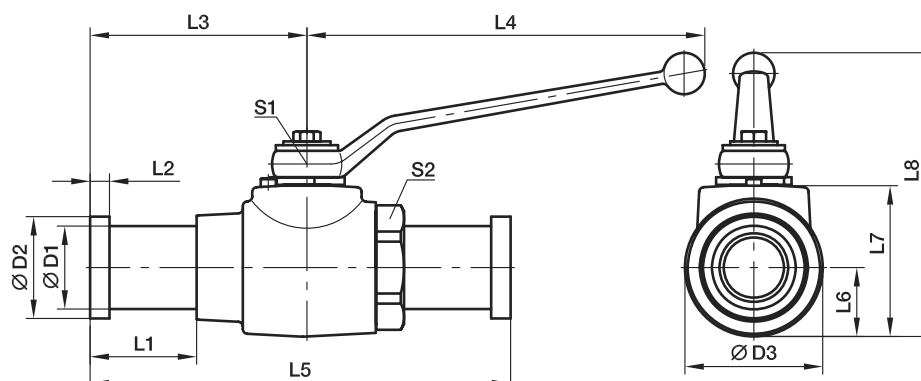
-10 up to +100° C

| Order code suffixes             |                                   |              |                                                                  |
|---------------------------------|-----------------------------------|--------------|------------------------------------------------------------------|
| Material                        | Suffix<br>surface<br>and material | Example      | Standard<br>sealing material<br>(no additional<br>suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                                | KH32B3V35CFX | POM / NBR                                                        |
| Steel                           | DIN 50938-FE//A/T4                | KH32B3V35X   | POM / NBR                                                        |



## KH-A-S Ball valve with SAE Flange adapter connection

SAE Flange / Ball valve 2/2 way steel  
(ISO 6162-1/-2)



### 3000 PSI Series

| Nom. flange size |          |    |      |    |      |     |       |     |       |      |     |     |    |    |            | Weight (steel)<br>kg/piece | Order code*    | PN (bar) <sup>1)</sup><br>S |
|------------------|----------|----|------|----|------|-----|-------|-----|-------|------|-----|-----|----|----|------------|----------------------------|----------------|-----------------------------|
| SAE (in)         | ISO (DN) | D1 | D2   | D3 | L1   | L2  | L3    | L4  | L5    | L6   | L7  | L8  | S1 | S2 | O-ring     |                            |                |                             |
| 1/2              | 12       | 24 | 30.2 | 35 | 42.0 | 6.7 | 75.5  | 112 | 151.0 | 17.0 | 40  | 92  | 10 | 32 | 18.66×3.53 | 0.9                        | <b>KH12A32</b> | 350                         |
| 3/4              | 20       | 32 | 38.1 | 45 | 43.0 | 6.7 | 81.0  | 187 | 162.0 | 24.0 | 55  | 113 | 14 | 41 | 25.00×3.53 | 1.7                        | <b>KH20A33</b> | 315                         |
| 1                | 25       | 38 | 44.4 | 55 | 38.9 | 8.0 | 89.0  | 187 | 178.0 | 26.0 | 60  | 118 | 14 | 50 | 32.92×3.53 | 2.5                        | <b>KH25A34</b> | 315                         |
| 1 1/4            | 32       | 43 | 50.8 | 73 | 40.3 | 8.0 | 99.0  | 227 | 190.5 | 36.5 | 80  | 155 | 17 | 60 | 37.70×3.53 | 3.1                        | <b>KH32A35</b> | 276                         |
| 1 1/2            | 40       | 50 | 60.3 | 85 | 58.3 | 8.0 | 115.5 | 227 | 231.0 | 42.5 | 90  | 165 | 17 | 70 | 47.22×3.53 | 4.3                        | <b>KH40A36</b> | 207                         |
| 2                | 50       | 62 | 71.4 | 99 | 50.9 | 9.5 | 116.0 | 227 | 232.0 | 49.5 | 104 | 179 | 17 | 85 | 56.74×3.53 | 5.8                        | <b>KH50A38</b> | 207                         |

### 6000 PSI Series

|       |    |    |      |    |      |      |       |     |       |      |     |     |    |    |            |     |                |     |
|-------|----|----|------|----|------|------|-------|-----|-------|------|-----|-----|----|----|------------|-----|----------------|-----|
| 1/2   | 12 | 24 | 31.7 | 35 | 42.0 | 7.7  | 75.5  | 112 | 151.0 | 17.0 | 40  | 92  | 10 | 32 | 18.66×3.53 | 1.0 | <b>KH12A62</b> | 420 |
| 3/4   | 20 | 32 | 41.3 | 45 | 49.0 | 8.8  | 87.0  | 187 | 174.0 | 24.0 | 55  | 113 | 14 | 46 | 25.00×3.53 | 1.9 | <b>KH20A63</b> | 315 |
| 1     | 25 | 38 | 47.6 | 55 | 49.0 | 9.5  | 99.0  | 187 | 198.0 | 26.0 | 60  | 118 | 14 | 50 | 32.92×3.53 | 2.8 | <b>KH25A64</b> | 315 |
| 1 1/4 | 32 | 44 | 54.0 | 73 | 56.5 | 10.3 | 115.0 | 227 | 223.0 | 36.5 | 80  | 155 | 17 | 60 | 37.70×3.53 | 3.3 | <b>KH32A65</b> | 315 |
| 1 1/2 | 40 | 51 | 63.5 | 85 | 83.5 | 12.6 | 140.5 | 227 | 281.0 | 42.5 | 90  | 165 | 17 | 70 | 47.22×3.53 | 4.8 | <b>KH40A66</b> | 315 |
| 2     | 50 | 67 | 79.4 | 99 | 93.0 | 12.6 | 158.0 | 227 | 316.0 | 49.5 | 104 | 179 | 17 | 85 | 56.74×3.53 | 7.4 | <b>KH50A68</b> | 315 |

<sup>1)</sup> Pressure shown = Item deliverable

The pressure specification PN for quarter turn ball valves applies to the design factor 1.5 (according DIN 3230 T5 and ISO 5208).

$\frac{PN \text{ (bar)}}{10} = PN \text{ (MPa)}$

#### Materials:

Body made of steel, coating DIN 50938-FE/A/T4, ball of hard chrome plated carbon steel, stem of zinc plated steel.

#### Seals:

Ball seat of POM (e.g. Delrin), stem seal of NBR (e.g. Perbunan).

#### Applications:

Suitable for petroleum-based hydraulic fluid, lubricants and fuel oil. For air applications suitable up to 100 bar.

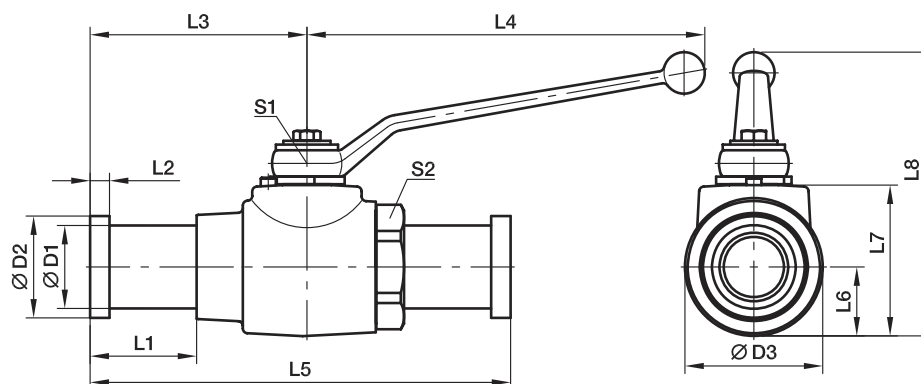
#### Temperature range:

–10 up to +100° C

| Order code suffixes             |                             |            |                                                         |
|---------------------------------|-----------------------------|------------|---------------------------------------------------------|
| Material                        | Suffix surface and material | Example    | Standard sealing material (no additional suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                          | KH12A63CFX | POM / NBR                                               |
| Steel                           | DIN 50938-FE//A/T4          | KH12A63X   | POM / NBR                                               |

## KH-A-S-71 Ball valve with SAE Flange adapter connection

SAE Flange / Ball valve 2/2 way stainless steel (ISO 6162-1/-2)



### 3000 PSI Series

| Nom. flange size |             | D1   | D2    | L    | L1  | L2 | L3  | B     | H    | H1    | H2 | SW | SW1 | O-ring     | Order code*      | PN<br>(bar)<br>S |
|------------------|-------------|------|-------|------|-----|----|-----|-------|------|-------|----|----|-----|------------|------------------|------------------|
| SAE<br>(in)      | ISO<br>(DN) |      |       |      |     |    |     |       |      |       |    |    |     |            |                  |                  |
| 1/2              | 12          | 24.0 | 176.0 | 42.0 | 6.8 | 55 | 45  | 45.0  | 21.0 | 49.5  | 32 | 10 | 28  | 18.64×3.53 | <b>KH12A3271</b> | 350              |
| 3/4              | 20          | 31.5 | 197.0 | 43.0 | 6.8 | 65 | 65  | 65.0  | 31.0 | 70.0  | 46 | 14 | 29  | 24.99×3.53 | <b>KH20A3371</b> | 350              |
| 1                | 25          | 38.0 | 200.0 | 38.9 | 8.0 | 71 | 75  | 75.0  | 38.0 | 80.0  | 50 | 14 | 29  | 32.92×3.53 | <b>KH25A3471</b> | 315              |
| 1 1/4            | 32          | 43.0 | 190.5 | 40.3 | 8.0 | 86 | 100 | 93.2  | 45.0 | 99.0  | 70 | 19 | 23  | 37.69×3.53 | <b>KH32A3571</b> | 250              |
| 1 1/2            | 40          | 50.0 | 236.5 | 58.3 | 8.0 | 92 | 110 | 104.4 | 52.2 | 110.0 | 80 | 19 | 23  | 47.22×3.53 | <b>KH40A3671</b> | 200              |
| 2                | 50          | 62.0 | 242.0 | 50.9 | 9.6 | 97 | 125 | 119.4 | 59.7 | 125.0 | 95 | 19 | 23  | 56.74×3.53 | <b>KH50A3871</b> | 160              |

### 6000 PSI Series

|       |    |      |       |      |      |    |     |       |      |       |    |    |    |            |                  |     |
|-------|----|------|-------|------|------|----|-----|-------|------|-------|----|----|----|------------|------------------|-----|
| 1/2   | 12 | 24.0 | 176.0 | 42.0 | 7.8  | 55 | 45  | 45.0  | 21.0 | 49.5  | 32 | 10 | 28 | 18.64×3.53 | <b>KH12A6271</b> | 400 |
| 3/4   | 20 | 32.0 | 209.0 | 49.0 | 8.8  | 65 | 65  | 65.0  | 31.0 | 70.0  | 46 | 14 | 29 | 24.99×3.53 | <b>KH20A6371</b> | 400 |
| 1     | 25 | 38.0 | 220.0 | 49.0 | 9.5  | 71 | 75  | 75.0  | 38.0 | 80.0  | 50 | 14 | 29 | 32.92×3.53 | <b>KH25A6471</b> | 400 |
| 1 1/4 | 32 | 44.0 | 223.0 | 56.5 | 10.3 | 86 | 100 | 93.2  | 45.0 | 99.0  | 70 | 19 | 23 | 37.69×3.53 | <b>KH32A6571</b> | 400 |
| 1 1/2 | 40 | 51.0 | 287.0 | 83.5 | 12.6 | 92 | 110 | 104.4 | 52.2 | 110.0 | 80 | 19 | 23 | 47.22×3.53 | <b>KH40A6671</b> | 400 |
| 2     | 50 | 67.0 | 327.0 | 93.5 | 12.6 | 97 | 125 | 119.4 | 59.7 | 125.0 | 95 | 19 | 23 | 56.74×3.53 | <b>KH50A6871</b> | 400 |

The pressure specification PN for quarter turn ball valves applies to the design factor 1.5 (according DIN 3230 T5 and ISO 5208)

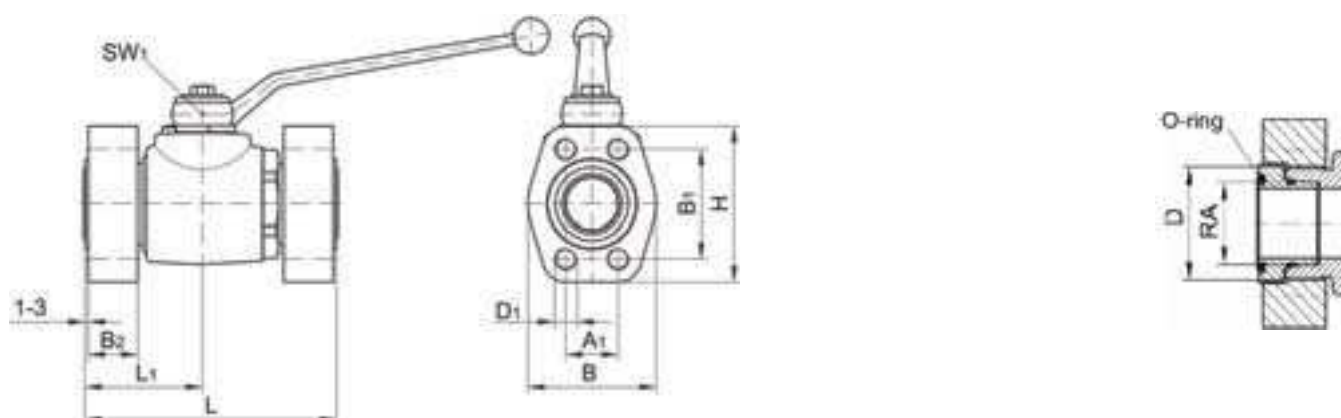
Hand lever belongs to the scope of supply  
Stainless steel (1.4571)

Body: Stainless steel  
Switching ball: Stainless steel  
Control shaft: Stainless steel  
Switching ball sealing: POM  
Control shaft sealing: FKM

| Order code suffixes |                                |           |
|---------------------|--------------------------------|-----------|
| Material            | Suffix<br>surface and material | Example   |
| Stainless steel     | none                           | KH12A6271 |

## KH-B4V-S Ball valve with SAE Flange connection ISO 6162 (1/2)

SAE flanges / ball valve 2/2-ways



| Port connection                                                               | DN    | Thread D | RA | D1          | A1   | B1   | B2 | L   | L1   | B  | H   | O-ring     | Weight kg | Order code          | PN (bar) S |
|-------------------------------------------------------------------------------|-------|----------|----|-------------|------|------|----|-----|------|----|-----|------------|-----------|---------------------|------------|
| SAE flanges<br>ISO 6162-1                                                     | 12*   | M 24×1.5 | 16 | M 8         | 17.5 | 38.1 | 20 | 103 | 51.5 | 46 | 54  | 18.64×3.53 | 1.2       | <b>KH12B4V3M</b>    | 350        |
|                                                                               | 20*   | M 36×2.0 | 25 | M10         | 22.3 | 47.6 | 20 | 125 | 62.5 | 52 | 65  | 24.99×3.53 | 2.0       | <b>KH20B4V3M</b>    | 350        |
|                                                                               | 25*   | M 42×2.0 | 30 | M10         | 26.2 | 52.4 | 21 | 138 | 69.0 | 59 | 70  | 32.92×3.53 | 2.7       | <b>KH25B4V3M</b>    | 315        |
|                                                                               | 32    | M 52×2.0 | 38 | M10         | 30.2 | 58.7 | 24 | 153 | 71.5 | 73 | 79  | 37.69×3.53 | 3.8       | <b>KH32B4V3M</b>    | 250        |
|                                                                               | 40/32 | M 52×2.0 | 38 | M12         | 35.7 | 69.9 | 30 | 153 | 71.5 | 83 | 94  | 47.22×3.53 | 4.9       | <b>KH40/32B4V3M</b> | 200        |
| Studs with solderless<br>tube fittings<br>DIN 2353 heavy series<br>ISO 8434-1 | 12*   | M 24×1.5 | 16 | 5/16-18 UNC | 17.5 | 38.1 | 20 | 103 | 51.5 | 46 | 54  | 18.64×3.53 | 1.2       | <b>KH12B4V3U</b>    | 350        |
|                                                                               | 20*   | M 36×2.0 | 25 | 3/8-16 UNC  | 22.3 | 47.6 | 20 | 125 | 62.5 | 52 | 65  | 24.99×3.53 | 2.0       | <b>KH20B4V3U</b>    | 350        |
|                                                                               | 25*   | M 42×2.0 | 30 | 3/8-16 UNC  | 26.2 | 52.4 | 21 | 138 | 69.0 | 59 | 70  | 32.92×3.53 | 2.7       | <b>KH25B4V3U</b>    | 315        |
|                                                                               | 32    | M 52×2.0 | 38 | 7/16-14 UNC | 30.2 | 58.7 | 24 | 153 | 71.5 | 73 | 79  | 37.69×3.53 | 3.8       | <b>KH32B4V3U</b>    | 250        |
|                                                                               | 40/32 | M 52×2.0 | 38 | 1/2-13 UNC  | 35.7 | 69.9 | 30 | 153 | 71.5 | 83 | 94  | 47.22×3.53 | 4.9       | <b>KH40/32B4V3U</b> | 200        |
| SAE-clearance groove<br>ISO 6162-2                                            | 12*   | M 24×1.5 | 16 | M 8         | 18.2 | 40.5 | 20 | 103 | 51.5 | 48 | 56  | 18.64×3.53 | 1.4       | <b>KH12B4V6M</b>    | 400        |
|                                                                               | 20*   | M 36×2.0 | 25 | M10         | 23.8 | 50.8 | 22 | 125 | 62.5 | 60 | 71  | 24.99×3.53 | 2.8       | <b>KH20B4V6M</b>    | 400        |
|                                                                               | 25*   | M 42×2.0 | 30 | M12         | 27.8 | 57.2 | 24 | 138 | 69.0 | 70 | 81  | 32.92×3.53 | 3.1       | <b>KH25B4V6M</b>    | 400        |
|                                                                               | 32    | M 52×2.0 | 38 | M12         | 31.8 | 66.6 | 30 | 153 | 71.5 | 78 | 95  | 37.69×3.53 | 4.3       | <b>KH32B4V6M</b>    | 400        |
|                                                                               | 40/32 | M 52×2.0 | 38 | M16         | 36.5 | 79.3 | 33 | 153 | 71.5 | 95 | 113 | 47.22×3.53 | 5.5       | <b>KH40/32B4V6M</b> | 400        |
| Studs with solderless<br>tube fittings<br>DIN 2353 heavy series<br>ISO 8434-1 | 12*   | M 24×1.5 | 16 | 5/16-18 UNC | 18.2 | 40.5 | 20 | 103 | 51.5 | 48 | 56  | 18.64×3.53 | 1.4       | <b>KH12B4V6U</b>    | 400        |
|                                                                               | 20*   | M 36×2.0 | 25 | 3/8-16 UNC  | 23.8 | 50.8 | 22 | 125 | 62.5 | 60 | 71  | 24.99×3.53 | 2.8       | <b>KH20B4V6U</b>    | 400        |
|                                                                               | 25*   | M 42×2.0 | 30 | 7/16-14 UNC | 27.8 | 57.2 | 24 | 138 | 69.0 | 70 | 81  | 32.92×3.53 | 3.1       | <b>KH25B4V6U</b>    | 400        |
|                                                                               | 32    | M 52×2.0 | 38 | 1/2-13 UNC  | 31.8 | 66.6 | 30 | 153 | 71.5 | 78 | 95  | 37.69×3.53 | 4.3       | <b>KH32B4V6U</b>    | 400        |
|                                                                               | 40/32 | M 52×2.0 | 38 | 5/8-11 UNC  | 36.5 | 79.3 | 33 | 153 | 71.5 | 95 | 113 | 47.22×3.53 | 5.5       | <b>KH40/32B4V6U</b> | 400        |

\*)Case in block construction

For the flanges see catalogue part M

Special types on request

|                         |                       |                       |
|-------------------------|-----------------------|-----------------------|
| Body:                   | Steel                 | Steel                 |
| Switching ball:         | Steel/chromium plated | Steel/chromium plated |
| Control shaft:          | Steel                 | Steel                 |
| Switching ball sealing: | POM                   | POM                   |
| Control shaft sealing:  | NBR                   | FKM                   |

| Order code suffixes             |                             |              |                                                         |
|---------------------------------|-----------------------------|--------------|---------------------------------------------------------|
| Material                        | Suffix surface and material | Example      | Standard sealing material (no additional suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                          | KH12B4V3MCFX | POM / NBR                                               |
| Steel                           | DIN 50938-FE//A/T4          | KH12B4V3MX   | POM / NBR                                               |

## KH-B5V-S Ball valve with flange connection DIN EN 1092-1

Steel/DIN/rotatable



DN 10-DN25



DN 32-DN50

| Port connection | DN | D   | b  | k   | d4  | f | n | Number d2 | L   | Weight kg | Order code |
|-----------------|----|-----|----|-----|-----|---|---|-----------|-----|-----------|------------|
| PN 25<br>PN 40  | 10 | 90  | 16 | 60  | 40  | 2 | 4 | 14        | 130 | 2.1       | KH10B5V40  |
|                 | 15 | 95  | 16 | 65  | 45  | 2 | 4 | 14        | 130 | 2.7       | KH15B5V40  |
|                 | 20 | 105 | 18 | 75  | 58  | 2 | 4 | 14        | 150 | 3.8       | KH20B5V40  |
|                 | 25 | 115 | 18 | 85  | 68  | 2 | 4 | 14        | 160 | 4.9       | KH25B5V40  |
|                 | 32 | 140 | 18 | 100 | 78  | 2 | 4 | 18        | 180 | 7.0       | KH32B5V40  |
|                 | 40 | 150 | 18 | 110 | 88  | 3 | 4 | 18        | 200 | 8.9       | KH40B5V40  |
| PN 63           | 50 | 165 | 20 | 125 | 102 | 3 | 4 | 18        | 230 | 12.2      | KH50B5V40  |
|                 | 10 | 100 | 20 | 70  | 40  | 2 | 4 | 14        | 130 | 2.9       | KH10B5V63  |
|                 | 15 | 105 | 20 | 75  | 45  | 2 | 4 | 14        | 130 | 3.5       | KH15B5V63  |
|                 | 25 | 140 | 24 | 100 | 68  | 2 | 4 | 18        | 160 | 7.6       | KH25B5V63  |
|                 | 40 | 170 | 26 | 125 | 88  | 3 | 4 | 22        | 200 | 12.6      | KH40B5V63  |
| PN 100          | 50 | 180 | 26 | 135 | 102 | 3 | 4 | 22        | 230 | 15.3      | KH50B5V63  |
|                 | 10 | 100 | 20 | 70  | 40  | 2 | 4 | 14        | 130 | 2.9       | KH10B5V100 |
|                 | 15 | 105 | 20 | 75  | 45  | 2 | 4 | 14        | 130 | 3.5       | KH15B5V100 |
|                 | 25 | 140 | 24 | 100 | 68  | 2 | 4 | 18        | 160 | 7.6       | KH25B5V100 |
|                 | 40 | 170 | 26 | 125 | 88  | 3 | 4 | 22        | 200 | 12.6      | KH40B5V100 |
| PN 160          | 50 | 195 | 28 | 145 | 102 | 3 | 4 | 26        | 230 | 17.9      | KH50B5V100 |
|                 | 10 | 100 | 20 | 70  | 40  | 2 | 4 | 14        | 130 | 2.9       | KH10B5V160 |
|                 | 15 | 105 | 20 | 75  | 45  | 2 | 4 | 14        | 130 | 3.5       | KH15B5V160 |
|                 | 25 | 140 | 24 | 100 | 68  | 2 | 4 | 18        | 160 | 7.6       | KH25B5V160 |
|                 | 40 | 170 | 28 | 125 | 88  | 3 | 4 | 22        | 200 | 13.2      | KH40B5V160 |
| PN 250          | 50 | 195 | 30 | 145 | 102 | 3 | 4 | 26        | 230 | 18.7      | KH50B5V160 |
|                 | 10 | 125 | 24 | 85  | 40  | 2 | 4 | 18        | 130 | 5.0       | KH10B5V250 |
|                 | 15 | 130 | 26 | 90  | 45  | 2 | 4 | 18        | 130 | 6.2       | KH15B5V250 |
|                 | 25 | 150 | 28 | 105 | 68  | 2 | 4 | 22        | 160 | 9.5       | KH25B5V250 |
|                 | 40 | 185 | 34 | 135 | 88  | 3 | 4 | 26        | 200 | 17.2      | KH40B5V250 |
| PN 320          | 50 | 200 | 38 | 150 | 102 | 3 | 8 | 26        | 230 | 22.6      | KH50B5V250 |
|                 | 10 | 125 | 24 | 85  | 40  | 2 | 4 | 18        | 130 | 5.0       | KH10B5V320 |
|                 | 15 | 130 | 26 | 90  | 45  | 2 | 4 | 18        | 130 | 6.2       | KH15B5V320 |
|                 | 25 | 160 | 34 | 115 | 68  | 2 | 4 | 22        | 160 | 12.5      | KH25B5V320 |
|                 | 40 | 195 | 38 | 145 | 88  | 3 | 4 | 26        | 200 | 20.5      | KH40B5V320 |
| PN 400          | 50 | 210 | 42 | 160 | 102 | 3 | 8 | 26        | 230 | 26.4      | KH50B5V320 |
|                 | 10 | 125 | 28 | 85  | 40  | 2 | 4 | 18        | 210 | 6.0       | KH10B5V400 |
|                 | 15 | 145 | 30 | 100 | 45  | 2 | 4 | 22        | 210 | 9.0       | KH15B5V400 |
|                 | 25 | 180 | 38 | 130 | 68  | 2 | 4 | 26        | 230 | 17.4      | KH25B5V400 |
|                 | 40 | 220 | 48 | 165 | 88  | 3 | 4 | 30        | 260 | 31.9      | KH40B5V400 |
| PN 400          | 50 | 235 | 52 | 180 | 102 | 3 | 8 | 30        | 300 | 38.9      | KH50B5V400 |

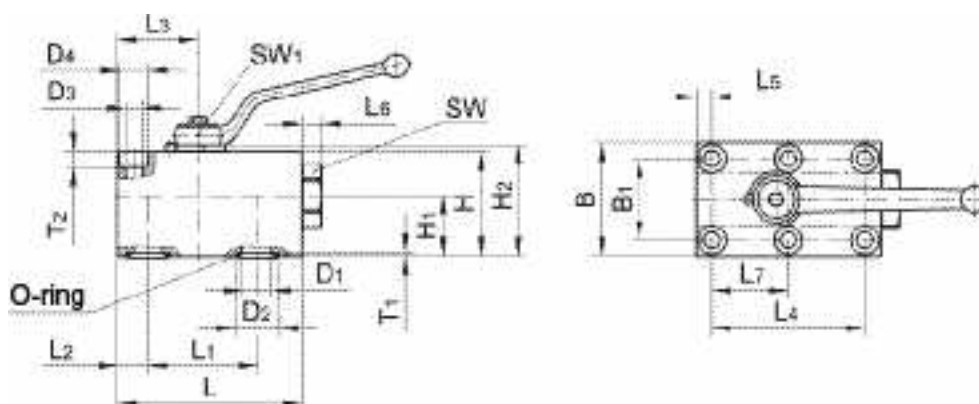
flange connection dimensions: DIN EN 1092-1 (DIN 2501-1)  
 sizes PN 25 – PN 320: DIN EN 558-1 series 1 (DIN 3202-1-F1)  
 sizes PN 400: DIN EN 558-1 series 2 (DIN 3202-1-F2)  
 special types on request

|                         |                       |                       |                       |
|-------------------------|-----------------------|-----------------------|-----------------------|
| Body:                   | Steel                 | Steel                 | Steel                 |
| Switching ball:         | Steel/chromium plated | steel/chromium plated | Steel/chromium plated |
| Control shaft:          | Steel                 | Steel                 | Steel                 |
| Switching ball sealing: | POM                   | POM                   | PTFE-Comp. 3          |
| Control shaft sealing:  | NBR                   | FKM                   | FKM                   |

| Order code suffixes             |                             |              |                                                         |
|---------------------------------|-----------------------------|--------------|---------------------------------------------------------|
| Material                        | Suffix surface and material | Example      | Standard sealing material (no additional suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                          | KH10B5V40CFX | POM / NBR                                               |
| Steel                           | DIN 50938-FE//A/T4          | KH10B5V40X   | POM / NBR                                               |

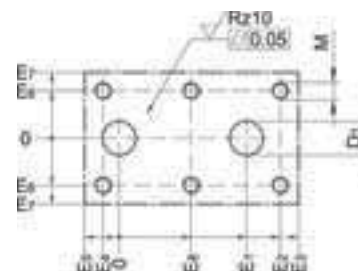
## KHBLOCK 2/2-way ball valves for block structure

Steel – DN6 – DN50



| Port connection                 | DN | L   | L1  | L2   | L3    | L4  | L5   | L6   | L7   | B   | B1  | H   | H1   | H2    | T1  | T2   | D1   | D2   | D3   | D4 | SW | SW1 | Weight kg | Order code  |
|---------------------------------|----|-----|-----|------|-------|-----|------|------|------|-----|-----|-----|------|-------|-----|------|------|------|------|----|----|-----|-----------|-------------|
| Body flange with O-ring sealing | 6  | 59  | 35  | 8.5  | 23.5  | 35  | 8.5  | 4.5  | 17.5 | 40  | 27  | 35  | 20.0 | 37.5  | 1.8 | 6.8  | 6.0  | 12.0 | 6.4  | 11 | 24 | 7   | 0.58      | KHBLOCKDN6  |
|                                 | 10 | 73  | 44  | 10.0 | 29.0  | 55  | 7.5  | 7.0  | 27.5 | 55  | 40  | 45  | 24.5 | 48.5  | 1.8 | 8.0  | 9.5  | 15.0 | 8.4  | –  | 32 | 8   | 1.17      | KHBLOCKDN10 |
|                                 | 12 | 98  | 58  | 16.0 | 42.5  | 83  | 7.5  | 10.0 | 41.5 | 60  | 45  | 55  | 32.0 | 58.5  | 1.8 | 8.0  | 15.5 | 25.0 | 8.4  | –  | 36 | 10  | 2.25      | KHBLOCKDN12 |
|                                 | 20 | 117 | 69  | 20.0 | 52.0  | 97  | 10.0 | 12.0 | 48.5 | 70  | 51  | 70  | 39.0 | 74.0  | 2.7 | 11.0 | 20.0 | 30.0 | 10.5 | 17 | –  | 14  | 4.00      | KHBLOCKDN20 |
|                                 | 25 | 138 | 81  | 24.0 | 62.0  | 115 | 10.0 | 7.0  | 57.5 | 80  | 60  | 80  | 46.0 | 84.0  | 2.7 | 11.0 | 24.0 | 35.0 | 10.5 | 17 | 50 | 14  | 5.82      | KHBLOCKDN25 |
|                                 | 32 | 165 | 96  | 29.0 | 75.0  | 136 | 12.0 | 11.0 | 68.0 | 100 | 78  | 100 | 56.6 | 104.5 | 2.7 | 12.0 | 32.0 | 40.0 | 13.0 | 19 | 70 | 17  | 10.97     | KHBLOCKDN32 |
|                                 | 40 | 175 | 112 | 28.5 | 84.5  | 112 | 28.5 | 25.0 | 56.0 | 130 | 95  | 100 | 52.6 | 104.5 | 2.7 | 17.5 | 38.0 | 48.5 | 17.0 | 26 | –  | 17  | 15.25     | KHBLOCKDN40 |
|                                 | 50 | 215 | 136 | 38.0 | 106.0 | 136 | 38.0 | 25.0 | 68.0 | 150 | 112 | 110 | 55.1 | 114.5 | 2.7 | 20.0 | 48.0 | 55.5 | 21.0 | 33 | –  | 17  | 23.20     | KHBLOCKDN50 |

|                                                                   | DN | D1   | E1  | E2    | E3    | E4   | E5   | E6   | E7   | E8   | M   | O-ring   |
|-------------------------------------------------------------------|----|------|-----|-------|-------|------|------|------|------|------|-----|----------|
| General tolerances<br>DIN ISO 2768<br>Surfaces<br>DIN EN ISO 4287 | 6  | 6.0  | 35  | 35.0  | 50.5  | –    | 8.5  | 13.5 | 20.0 | 17.5 | M 6 | 7.5x2.5  |
|                                                                   | 10 | 9.5  | 44  | 52.5  | 63.0  | 2.5  | 10.0 | 20.0 | 27.5 | 25.0 | M 8 | 10.5x2.5 |
|                                                                   | 12 | 15.5 | 58  | 74.5  | 82.0  | 8.5  | 16.0 | 22.5 | 30.0 | 33.0 | M 8 | 20.5x2.5 |
|                                                                   | 20 | 20.0 | 69  | 87.0  | 97.0  | 10.0 | 20.0 | 25.5 | 35.0 | 38.5 | M10 | 23.5x3.5 |
|                                                                   | 25 | 24.0 | 81  | 101.0 | 114.0 | 14.0 | 24.0 | 30.0 | 40.0 | 43.5 | M10 | 28.5x3.5 |
|                                                                   | 32 | 32.0 | 96  | 119.0 | 136.0 | 17.0 | 29.0 | 39.0 | 50.0 | 51.0 | M12 | 33.5x3.5 |
|                                                                   | 40 | 38.0 | 112 | 112.0 | 146.5 | –    | 28.5 | 47.5 | 65.0 | 56.0 | M16 | 42.0x3.5 |
|                                                                   | 50 | 48.0 | 136 | 136.0 | 177.0 | –    | 38.0 | 56.0 | 75.0 | 68.0 | M20 | 49.0x3.5 |



Drilling template

|                         |                       |                       |
|-------------------------|-----------------------|-----------------------|
| Body:                   | Steel                 | Steel                 |
| Switching ball:         | Steel/chromium plated | Steel/chromium plated |
| Control shaft:          | Steel                 | Steel                 |
| Body sealing:           | NBR                   | FKM                   |
| Switching ball sealing: | POM                   | POM                   |
| Control shaft sealing:  | NBR                   | FKM                   |

Standard surface: bronzed

For Cr(VI)-free please add CF

Example: **KHBLOCKDN6CFX**

## DV Shut-off valve PN 10 – Casing DIN 3512

### EO 24° cone end / EO 24° cone end

(with internal threaded spindle)

For cold and warm water\* up to 80°C, compressed air, mineral oils and fuel oils types EL and L, 6 bar and up to 80°C.

The pressure specification PN for hand-operated

shut-off valves applies to the design

factor 1,5 (according DIN 3230 T5

and ISO 5208).

#### Caution!

Please note the admissible pressure ratings for the EO-tube ends.

#### DVAE

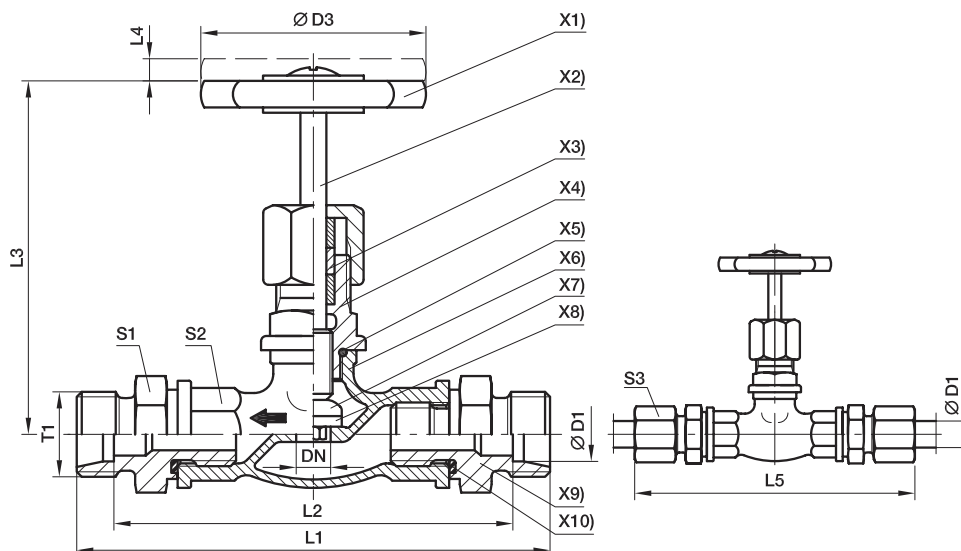
EO tube end ← male BSPP

#### DVAA

male BSPP ← EO tube end

DV-valves with male BSPP thread on request.

\*Indicate type of water or additive if any



- X1) **Hand wheel:** material: Polyamid  
X2) **Spindle:** material: Brass 2.0401  
X3) **Stuffing boxpacking:** PTFE Compound  
X4) **Haed piece:** material: Brass 2.0401  
X5) **Sealing:** O-ring NBR (e.g. Perbunan)  
X6) **Casing:** material: Brass 2.0340.02  
X7) **Valve cone:** material: Brass 2.0401  
X8) **Shut-off sealing:** NBR (e.g. Perbunan)  
X9) **Male stud fitting:** material: Brass 2.0540  
X10) **Sealing:** Elastoc-sealing NBR (e.g. Perbunan)

| Series          | D1 | T1       | DN | D3 | L1  | L2  | L3  | L4 | L5  | S1 | S2 | S3 | Weight<br>g/1 piece | Order code*   | PN (bar) <sup>1)</sup><br>without<br>surface |
|-----------------|----|----------|----|----|-----|-----|-----|----|-----|----|----|----|---------------------|---------------|----------------------------------------------|
| L <sup>3)</sup> | 06 | M 12×1.5 | 5  | 50 | 102 | 88  | 63  | 7  | 117 | 22 | 21 | 14 | 313                 | <b>DV06LX</b> | 10                                           |
|                 | 08 | M 14×1.5 | 6  | 50 | 102 | 88  | 63  | 7  | 117 | 22 | 21 | 17 | 305                 | <b>DV08LX</b> | 10                                           |
|                 | 10 | M 16×1.5 | 8  | 50 | 104 | 90  | 63  | 7  | 119 | 22 | 21 | 19 | 308                 | <b>DV10LX</b> | 10                                           |
|                 | 12 | M 18×1.5 | 10 | 50 | 104 | 90  | 63  | 7  | 119 | 22 | 21 | 22 | 304                 | <b>DV12LX</b> | 10                                           |
|                 | 15 | M 22×1.5 | 12 | 50 | 107 | 93  | 65  | 8  | 123 | 27 | 25 | 27 | 426                 | <b>DV15LX</b> | 10                                           |
|                 | 18 | M 26×1.5 | 16 | 50 | 109 | 94  | 67  | 8  | 126 | 27 | 25 | 32 | 434                 | <b>DV18LX</b> | 10                                           |
|                 | 22 | M 30×2.0 | 20 | 60 | 123 | 108 | 67  | 8  | 140 | 32 | 32 | 36 | 670                 | <b>DV22LX</b> | 10                                           |
|                 | 28 | M 36×2.0 | 25 | 60 | 140 | 125 | 95  | 10 | 158 | 41 | 38 | 41 | 1030                | <b>DV28LX</b> | 10                                           |
|                 | 35 | M 45×2.0 | 32 | 70 | 166 | 145 | 102 | 10 | 188 | 50 | 47 | 50 | 1640                | <b>DV35LX</b> | 10                                           |

<sup>1)</sup> Pressure shown = item deliverable

<sup>3)</sup> L = light series

$\frac{PN \text{ (bar)}}{10} = PN \text{ (MPa)}$

Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

\*Please add the **suffixes** below according to the material/ surface required.

| Order code suffixes |                             |         |                                                         |
|---------------------|-----------------------------|---------|---------------------------------------------------------|
| Material            | Suffix surface and material | Example | Standard sealing material (no additional suffix needed) |
| Brass 2.0340.02     | without                     | DV06LX  | PTFE / NBR                                              |

## LD Shut-off valve PN 40

### EO 24° cone end / EO 24° cone end

(with internal threaded spindle)

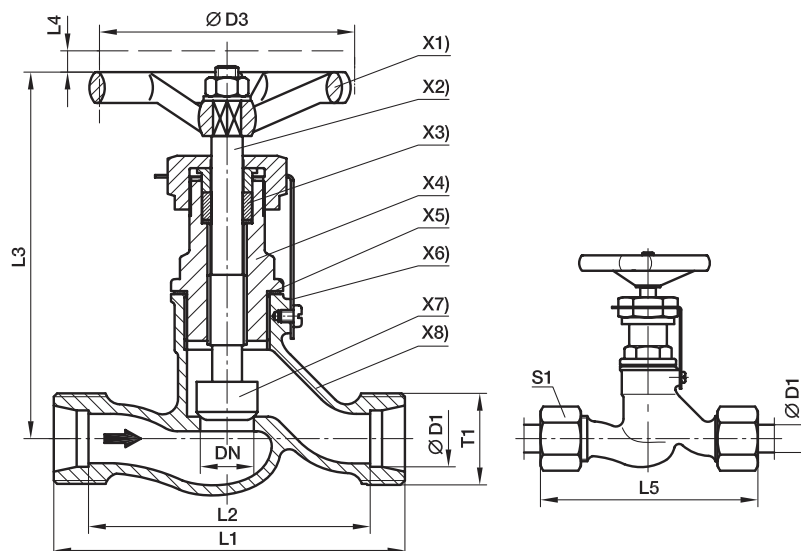
For hydraulic oil, mineral, oil, fuel oil, Diesel, water\* etc. Temperature up to 150°C. For steam up to 10 bar.

For compressed air up to 35 bar on request. CS DIN 86501 Rg.-N.

The pressure specification PN for hand-operated shut-off valves applies to the design factor 1,5 (according DIN 3230 T5 and ISO 5208).

#### Caution!

Please note the admissible pressure ratings for the EO-tube ends.



|                                  |                                                       |
|----------------------------------|-------------------------------------------------------|
| X1) <b>Hand wheel:</b>           | Plastic material typ 74 according to DIN 388 Form C   |
| X2) <b>Spindle:</b>              | with internal thread. Material: Cu Zn 35 Ni 2         |
| X3) <b>Stuffing box packing:</b> | Graphite                                              |
| X4) <b>Head piece:</b>           | material: Cu Zn 39 Pb 3                               |
| X5) <b>Sealing:</b>              | Copper ring                                           |
| X6) <b>Locking plates:</b>       | material: St. 37/zinc plated                          |
| X7) <b>Valve cone:</b>           | loose tip material: Cu Zn 35 Ni 2                     |
| X8) <b>Casing:</b>               | material: G-Cu Sn 5Zn Pb (Rg 5 according to DIN 1705) |

#### EO-tube connection:

for **copper** tubes nuts, cutting and locking rings of brass

#### Attention:

for **steel** tubes: nuts, progressive rings of steel **specify when ordering**

We recommend pre-installation in hardened pre-installation body (see assembly instructions)

| Series          | D1<br> | T1       | DN | D3  | L1  | L2  | L3  | L4 | L5  | S1 | Weight<br>g/1 piece | Order code*   | PN (bar) <sup>1)</sup><br>without<br>surface |
|-----------------|--------|----------|----|-----|-----|-----|-----|----|-----|----|---------------------|---------------|----------------------------------------------|
| S <sup>4)</sup> | 10     | M 18x1.5 | 6  | 63  | 60  | 45  | 98  | 7  | 77  | 22 | 383                 | <b>LD10SX</b> | 40                                           |
|                 | 12     | M 20x1.5 | 8  | 63  | 64  | 49  | 98  | 7  | 81  | 24 | 401                 | <b>LD12SX</b> | 40                                           |
|                 | 14     | M 22x1.5 | 10 | 63  | 70  | 54  | 98  | 7  | 89  | 27 | 417                 | <b>LD14SX</b> | 40                                           |
|                 | 16     | M 24x1.5 | 12 | 80  | 84  | 67  | 110 | 9  | 103 | 30 | 631                 | <b>LD16SX</b> | 40                                           |
|                 | 20     | M 30x2.0 | 16 | 80  | 90  | 69  | 110 | 9  | 112 | 36 | 688                 | <b>LD20SX</b> | 40                                           |
|                 | 25     | M 36x2.0 | 20 | 100 | 110 | 86  | 129 | 12 | 134 | 46 | 1191                | <b>LD25SX</b> | 40                                           |
|                 | 30     | M 42x2.0 | 25 | 100 | 120 | 93  | 129 | 12 | 146 | 50 | 1322                | <b>LD30SX</b> | 40                                           |
|                 | 38     | M 52x2.0 | 32 | 100 | 140 | 108 | 158 | 12 | 169 | 60 | 2268                | <b>LD38SX</b> | 40                                           |

<sup>1)</sup> Pressure shown = item deliverable

<sup>4)</sup> S = heavy series

$\frac{PN \text{ (bar)}}{10} = PN \text{ (MPa)}$

Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page I7.

\*Please add the **suffixes** below according to the material/surface required.

| Order code suffixes    |                                   |         |                                                                  |
|------------------------|-----------------------------------|---------|------------------------------------------------------------------|
| Material               | Suffix<br>surface<br>and material | Example | Standard<br>sealing material<br>(no additional<br>suffix needed) |
| Gunmetal (Rg 5) 2.1096 | without                           | LD10SX  | Graphit / Metal                                                  |



## VDHA High pressure valve

### EO tube end / EO tube end

with internal threaded spindle and body of low grade forged stainless steel  
The pressure specification PN for hand-operated shut-off valves applies to the design factor 1,5 (according DIN 3230 T5 and ISO 5208).

**Caution!**  
Please note the admissible pressure ratings for the EO-tube ends.

Temperatures up to 400°C according to tube material (consider pressure drop with temperatures above 50°C)

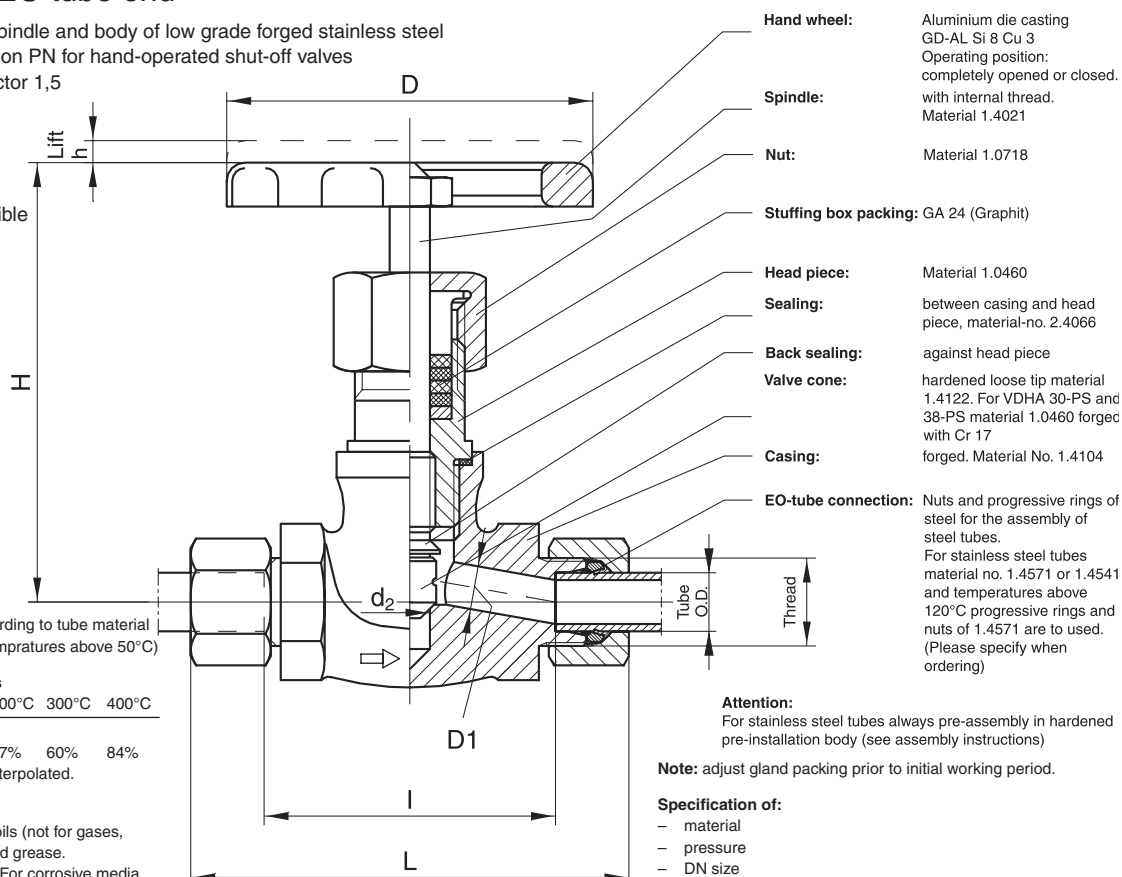
#### Required pressure reductions

| temperature         | 50°C | 100°C | 200°C | 300°C | 400°C |
|---------------------|------|-------|-------|-------|-------|
| pressure reductions | 6%   | 15%   | 37%   | 60%   | 84%   |

Intermediate values are to be interpolated.

#### Applications:

For water, steam, hot and cold oils (not for gases, oxygen etc.) on mineral oil based grease.  
For compressed air up to 50°C. For corrosive media, acids, fire resistant fluid etc.



| Series          | D1 | PN (bar) | DN | Thread   | d2   | H   | L   | I   | h  | D   | Weight g/1 piece | With Nut and Ring   |           |
|-----------------|----|----------|----|----------|------|-----|-----|-----|----|-----|------------------|---------------------|-----------|
|                 |    |          |    |          |      |     |     |     |    |     |                  | Dry Technology EO-2 | PSR steel |
| S <sup>4)</sup> | 06 | 630      | 4  | M 14x1.5 | 9.5  | 120 | 95  | 66  | 6  | 100 | 891              | VDHA06ZS            | VDHA06S   |
|                 | 08 | 630      | 5  | M 16x1.5 | 9.5  | 120 | 95  | 66  | 6  | 100 | 917              | VDHA08ZS            | VDHA08S   |
|                 | 10 | 630      | 7  | M 18x1.5 | 9.5  | 120 | 97  | 65  | 6  | 100 | 937              | VDHA10ZS            | VDHA10S   |
|                 | 12 | 630      | 8  | M 20x1.5 | 9.5  | 120 | 97  | 65  | 6  | 100 | 940              | VDHA12ZS            | VDHA12S   |
|                 | 14 | 630      | 10 | M 22x1.5 | 9.5  | 120 | 119 | 84  | 6  | 100 | 1194             | VDHA14ZS            | VDHA14S   |
|                 | 16 | 400      | 11 | M 24x1.5 | 9.5  | 120 | 119 | 83  | 6  | 100 | 1209             | VDHA16ZS            | VDHA16S   |
|                 | 20 | 400      | 13 | M 30x2.0 | 11.0 | 120 | 122 | 79  | 6  | 100 | 1292             | VDHA20ZS            | VDHA20S   |
|                 | 25 | 400      | 17 | M 36x2.0 | 12.0 | 143 | 154 | 106 | 9  | 125 | 2013             | VDHA25ZS            | VDHA25S   |
|                 | 30 | 250      | 19 | M 42x2.0 | 22.5 | 164 | 156 | 103 | 12 | 125 | 2596             | VDHA30ZS            | VDHA30S   |
|                 | 38 | 250      | 25 | M 52x2.0 | 26.5 | 198 | 179 | 118 | 12 | 180 | 4972             | VDHA38ZS            | VDHA38S   |

<sup>1)</sup> Pressure shown = item deliverable

<sup>4)</sup> S = heavy series

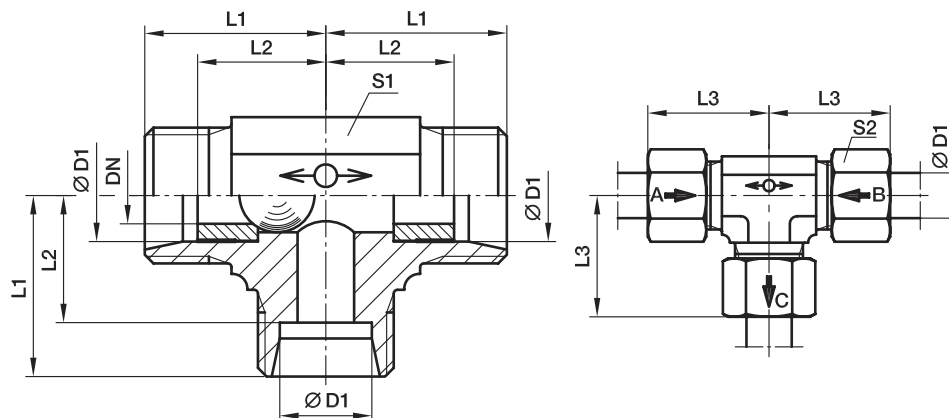
$\frac{PN \text{ (bar)}}{10} = PN \text{ (MPa)}$



## WV Alternating valve

### EO 24° cone end / EO 24° cone end / EQ 24° cone end

These valves permit the passage of flow from either inlet 1 or 2 to the outlet port whilst shutting off the inlet port not in use. The shutting off, of an inlet is achieved by a floating ball bearing which moves by the pressure of the flow.



Material: steel  
Surface finish: Cr(VI)-free.

Valves are not recommended for compressed air and gases.  
WV-valves are not to be used in connection with weld nipples, swivel nuts etc. where there is no contact with a shoulder stop in the inner cone.

Temperature range without pressure reductions: -40°C up to +120°C.

Recommended fitting position as shown in the picture.

Leakage rate for alternating valves hydraulic test  
with test pressure =  $P_{max}$ : approx. 20 drops (test period of 1 minute).

Directions of flow:

$D_1 \rightarrow D_3 = D_2$  closed  
 $D_2 \rightarrow D_3 = D_1$  closed

| Series          | D1<br> | T1       | DN   | L1 | L2 | L3 | S1 | S2 | Weight<br>g/1 piece | Order code*     | PN<br>(bar) <sup>1)</sup><br>CF |
|-----------------|--------|----------|------|----|----|----|----|----|---------------------|-----------------|---------------------------------|
| L <sup>3)</sup> | 8      | M 14×1.5 | 4.5  | 21 | 14 | 29 | 14 | 17 | 53                  | <b>WV08LOMD</b> | 160                             |
|                 | 10     | M 16×1.5 | 6.0  | 22 | 15 | 30 | 17 | 19 | 73                  | <b>WV10LOMD</b> | 160                             |
|                 | 12     | M 18×1.5 | 7.5  | 24 | 17 | 32 | 19 | 22 | 96                  | <b>WV12LOMD</b> | 160                             |
|                 | 15     | M 22×1.5 | 10.0 | 28 | 21 | 36 | 19 | 27 | 134                 | <b>WV15LOMD</b> | 160                             |

<sup>1)</sup> Pressure shown = item deliverable

<sup>3)</sup> L = light series

$\frac{PN \text{ (bar)}}{10} = PN \text{ (MPa)}$

Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page I7.

\*Please add the **suffixes**  
below according to the material/  
surface required.

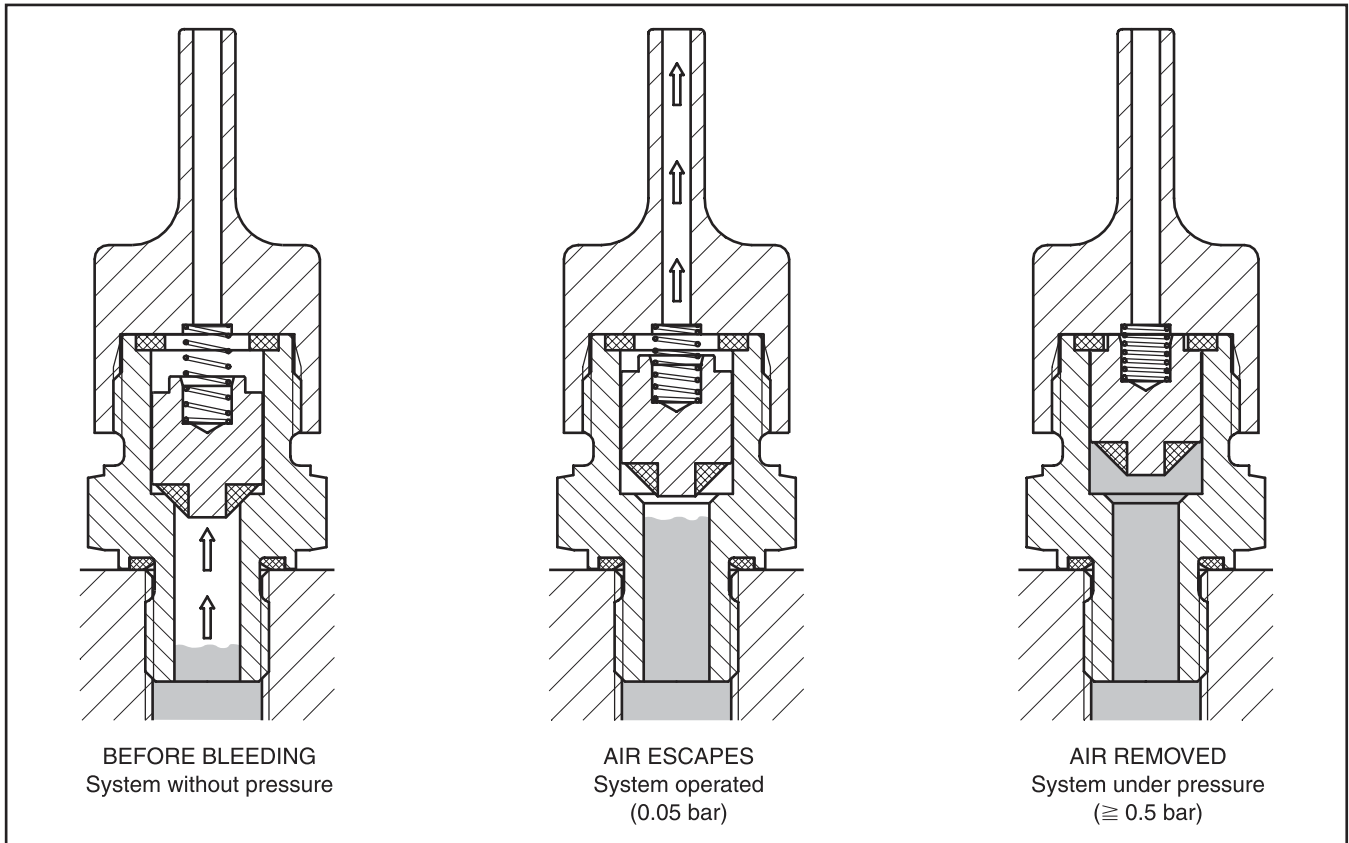
| Order code suffixes             |                                   |            |                                                                  |
|---------------------------------|-----------------------------------|------------|------------------------------------------------------------------|
| Material                        | Suffix<br>surface<br>and material | Example    | Standard<br>sealing material<br>(no additional<br>suffix needed) |
| Steel, zinc plated, Cr(VI)-free | CF                                | WV08LOMDCF | Steel ball                                                       |

## ELA air-bleed valves

Hydraulic systems can effectively be bled with ELA air-bleed valves.

Easily installed – maintenance-free – almost unlimited service life – simple – safe – reliable – efficient.  
The system can be operated immediately. No control irregularities due to air contamination of the pressure medium.  
Cost saving, as non-productive de-aeration time is saved.

Air bleed between: – opening pressure 0.05 bar  
– closing pressure  $\geq 0.5$  bar



The principle of the air-bleed valve is based on the difference in behaviour of gases and liquids under pressure because of their dependence on viscosity. A piston, housed in the bore of the body with defined clearance, effects the opening and closing of the valve on start-up or shut-down of the system. On setting the system in operation, the accumulated air escapes until the liquid column of the pressure medium reaches the piston. The pressure of the liquid lifts the piston against the upper, high pressure seal, securely closing the air-vent (slight oil discharge may occur). When pressure is released the spring releases the piston reopening the air-vent, whereupon the procedure may be repeated. The special piston design prevents any intake of air in case of partial vacuum.

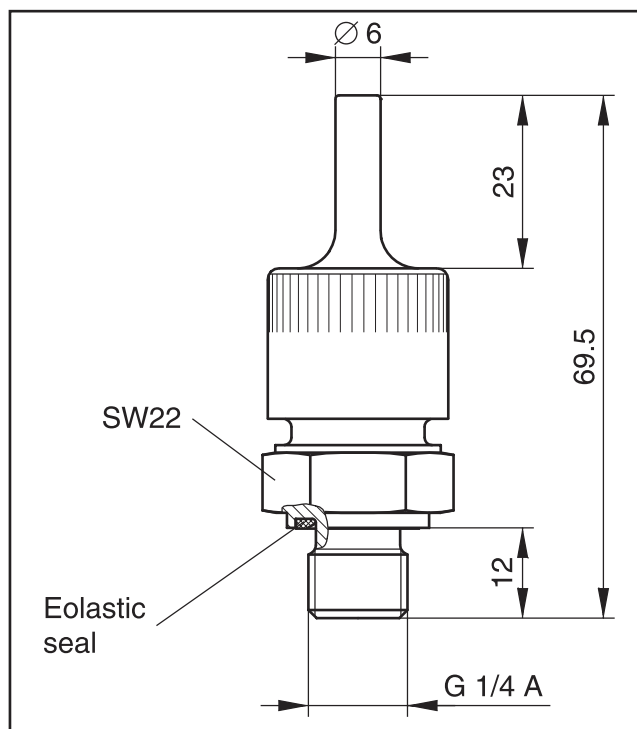
The air bleed valve should be connected vertical, at the highest point of the hydraulic system or in places where air accumulation may occur.

ELA air-bleed valves are available only for mineral oil based fluids, and within the temperature limits of  $-20^{\circ}\text{C}$  to  $+90^{\circ}\text{C}$ .

## ELA Air-bleed valves

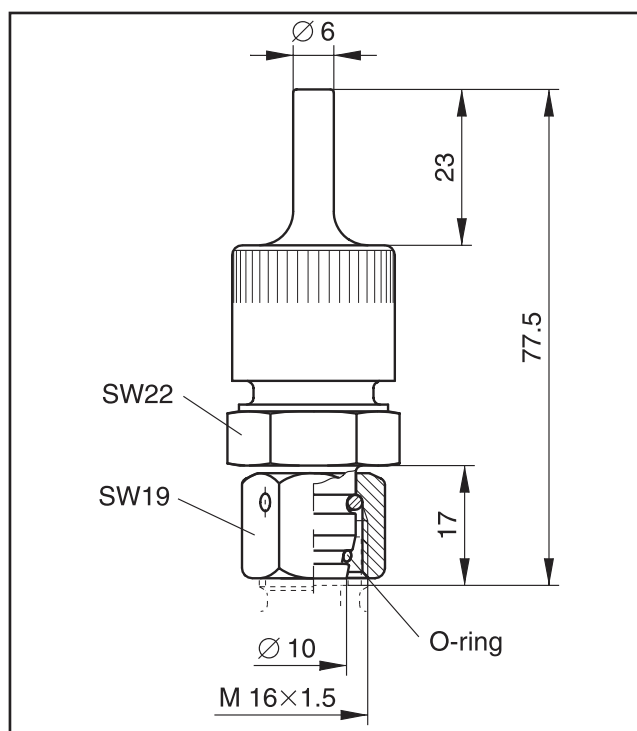
Male BSPP thread with Eolastic seal

| PN<br>(bar) | Dry Technology<br>Steel | Weight<br>g/1 piece |
|-------------|-------------------------|---------------------|
| 400         | <b>ELA1/4EDCF</b>       | 109                 |



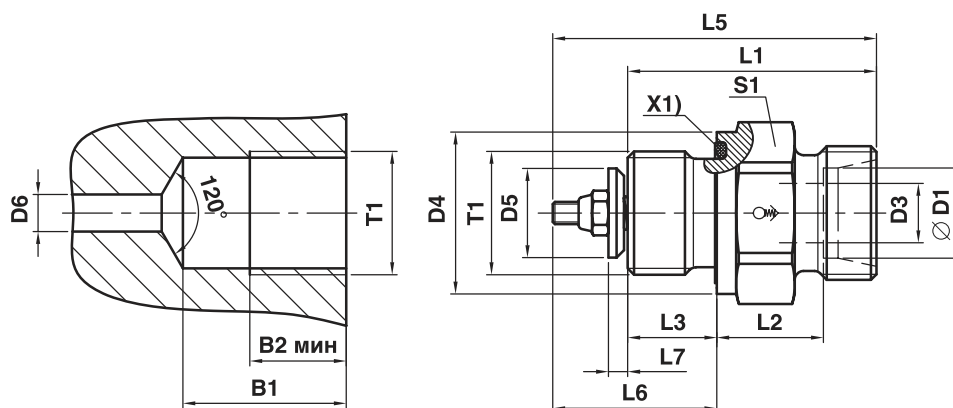
## EO Swivel

| PN<br>(bar) | Dry Technology<br>Steel | Weight<br>g/1 piece |
|-------------|-------------------------|---------------------|
| 315         | <b>ELAE10LCF</b>        | 125                 |



## LRV line rupture valve

Imperial port ends – ED (ISO 1179) / EO 24° cone end



| D1<br>           | T1      | D3   | D4 | D5   | D6 | L1   | L2   | L3 | L5 | S1 | B1 | B2 | Weight<br>g/1 piece | Order code*      | PN<br>(bar) |
|------------------|---------|------|----|------|----|------|------|----|----|----|----|----|---------------------|------------------|-------------|
| 08               | G 1/4 A | 6.0  | 19 | 9.8  | 5  | 32.0 | 13.0 | 12 | 42 | 19 | 24 | 13 | 37                  | LRV08LRED*1/2OCF | 400         |
| 12               | G 3/8 A | 9.0  | 22 | 12.0 | 8  | 33.5 | 14.5 | 12 | 44 | 22 | 24 | 13 | 53                  | LRV12LRED*1/2OCF | 400         |
| 15 <sup>1)</sup> | G 3/8 A | 9.0  | 22 | 12.0 | 8  | 33.5 | 14.5 | 12 | 44 | 22 | 24 | 13 | 53                  | LRV15LRED*1/2OCF | 400         |
| 15 <sup>1)</sup> | G 1/2 A | 14.0 | 27 | 16.0 | 12 | 37.0 | 15.5 | 14 | 51 | 27 | 28 | 15 | 84                  | LRV15LRED*1/2OCF | 400         |
| 18               | G 1/2 A | 14.0 | 27 | 16.0 | 12 | 37.0 | 15.5 | 14 | 51 | 27 | 28 | 15 | 84                  | LRV18LRED*1/2OCF | 400         |
| 22               | G 3/4 A | 17.5 | 32 | 20.0 | 16 | 41.0 | 17.5 | 16 | 56 | 32 | 32 | 17 | 121                 | LRV22LRED*1/2OCF | 250         |

O-ring version and alternative connections on request!

<sup>1)</sup> Size 15L depends on the Q<sub>max</sub>!

| Order code – supplementary designations |                               |                     |                                                                          |
|-----------------------------------------|-------------------------------|---------------------|--------------------------------------------------------------------------|
| Material                                | Identifying letter<br>Version | Example             | Standard sealing material<br>(no additional identifying letter required) |
| Steel, galvanized, Cr(VI)-free          | 10Q                           | LRV08LRED10QOCF     | NBR (set to Q 10 l/min)                                                  |
| Steel, galvanized, Cr(VI)-free          | 17Q 0.5D                      | LRV18LRED17Q0.5DOCF | NBR (set to Q 17 l/min<br>and restriction drilling D = 0.5 mm)           |

Please add the identifying letter for the required version to the order code.

\*1 = cut-off flow Q (l/min): 9 to 17 connection 08L 15 to 75 connection 18L  
10 to 24 connection 12L 45 to 130 connection 22L

\*2 = restriction drilling D (mm): 0.5/0.8/1.0/1.5

Supplied without nut and bite-type ring.

|                    |                                  |
|--------------------|----------------------------------|
| Housing            | Steel, galvanized, Cr(VI)-free   |
| Valve disk         | Steel                            |
| Spring             | Steel                            |
| Insert             | Aluminium                        |
| Slotted head screw | Galvanized steel                 |
| Nut                | Galvanized steel, self-retaining |
| Seat seal          | Sealing edge, steel/steel        |
| Operating pressure | See table                        |
| Temperature        | −40 °C to +120 °C                |
| Medium             | Mineral oils                     |
| Mounting position  | as required                      |