

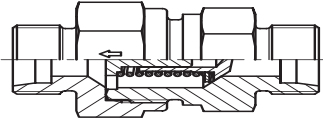


# **EO<sup>®</sup> Ermeto Original Valves**



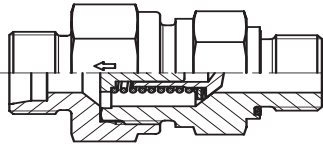
Visual index Non return valves

**RHD** / p. O13



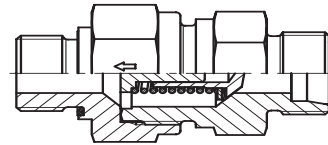
EO 24° cone end / EO 24° cone end

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



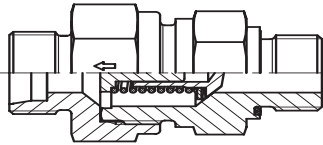
EO 24° cone end /  
Male BSPP thread – ED-seal (ISO 1179)

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



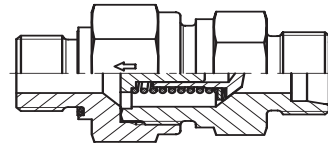
Male BSPP thread – ED-seal (ISO 1179) /  
EO 24° cone end

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



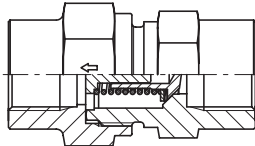
EO 24° cone end /  
Male metric thread – ED-seal (ISO 9974)

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



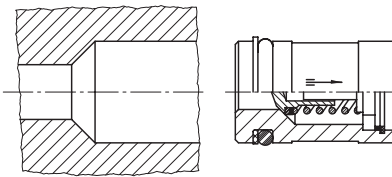
Male metric thread – ED-seal (ISO 9974) /  
EO 24° cone end

**RHDI** / p. O18



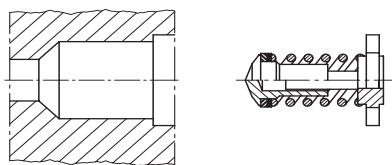
Female BSPP thread (ISO 1179-1) /  
Female BSPP thread (ISO 1179-1)

**RVP** / p. O19



Non return valve cartridge

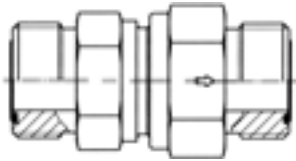
**I-TL** / p. O20



Internal parts of non return valve

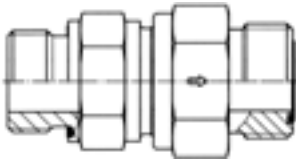
Visual index Non return valves with O-Lok® connections

**RHDMLOS** / p. O22



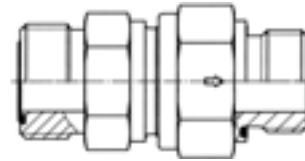
O-Lok® ORFS end / O-Lok® ORFS end

**RHV42EDMLOS** / p. O23



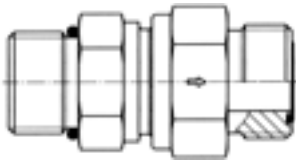
Male BSPP thread – ED-seal (ISO 1179) /  
O-Lok® ORFS end

**RHZ42EDMLOS** / p. O24



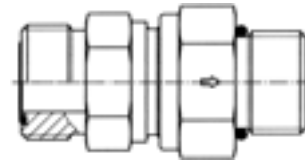
O-Lok® ORFS end /  
Male BSPP thread – ED-seal (ISO 1179)

**RHV50MLOS** / p. O25



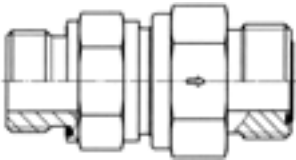
Male UN/UNF thread– O-ring (ISO 11926) /  
O-Lok® ORFS end

**RHZ50MLOS** / p. O26



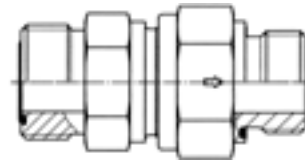
O-Lok® ORFS end /  
Male UN/UNF thread– O-ring (ISO 11926)

**RHV82EDMLOS** / p. O27



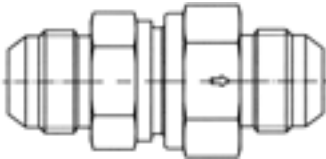
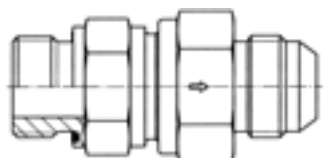
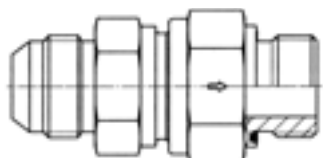
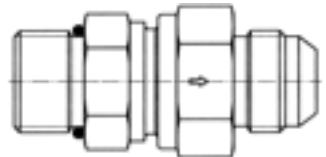
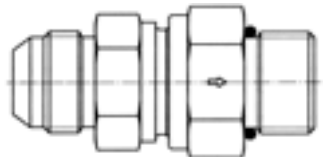
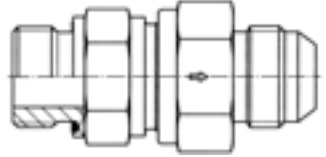
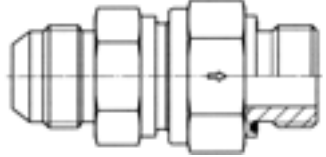
Male metric thread – ED-seal (ISO 9974) /  
O-Lok® ORFS end

**RHZ82EDMLOS** / p. O28

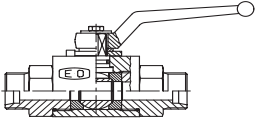
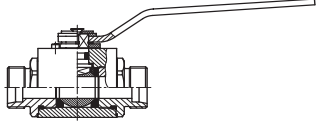
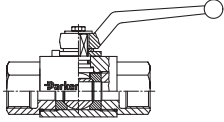
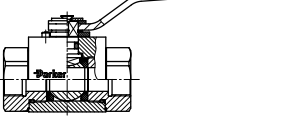
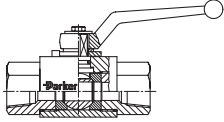
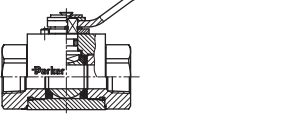


O-Lok® ORFS end /  
Male metric thread – ED-seal (ISO 9974)

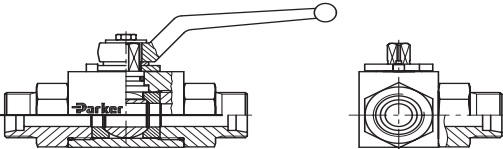
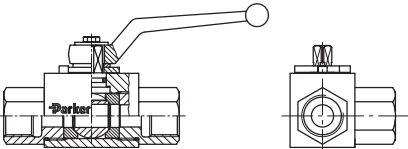
Visual index Non return valves with Triple-Lok® connections

<p><b>RHDMTXS</b> / p. O29</p>  <p>Triple-Lok® 37° flare end / Triple-Lok® 37° flare end</p>	
<p><b>RHV42EDMXS</b> / p. O30</p>  <p>Male BSPP thread – ED-seal (ISO 1179) / Triple-Lok® 37° flare end</p>	<p><b>RHZ42EDMXS</b> / p. O31</p>  <p>Triple-Lok® 37° flare end / Male BSPP thread – ED-seal (ISO 1179)</p>
<p><b>RHV50MXS</b> / p. O32</p>  <p>Male UN/UNF thread – O-ring (ISO 11926) / Triple-Lok® 37° flare end</p>	<p><b>RHZ50MXS</b> / p. O33</p>  <p>Triple-Lok® 37° flare end / Male UN/UNF thread – O-ring (ISO 11926)</p>
<p><b>RHV82EDMXS</b> / p. O34</p>  <p>Male metric thread – ED-seal (ISO 9974) / Triple-Lok® 37° flare end</p>	<p><b>RHZ82EDMXS</b> / p. O35</p>  <p>Triple-Lok® 37° flare end / Male metric thread – ED-seal (ISO 9974)</p>

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

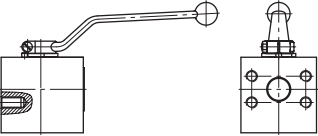
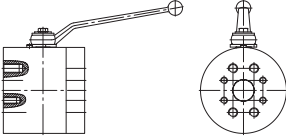
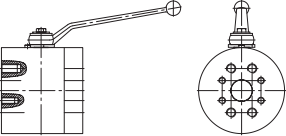
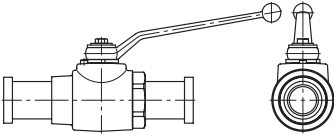
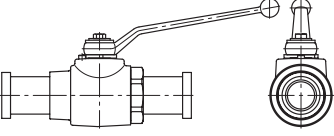
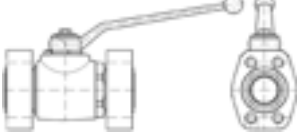
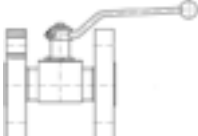
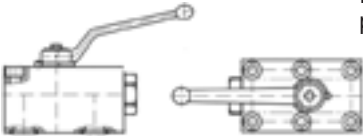
 <p><b>KH (S)</b> p. O36</p> <p>EO 24° cone end / EO 24° cone end</p>	 <p><b>KH (71)</b> p. O37</p> <p>EO 24° cone end / EO 24° cone end</p>
 <p><b>KH-BSPP (S)</b> p. O38</p> <p>Female BSPP thread (ISO 1179-1) / Female BSPP thread (ISO 1179-1)</p>	 <p><b>KH-BSPP (71)</b> p. O39</p> <p>Female BSPP thread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

### Visual index 3/2-way ball valves

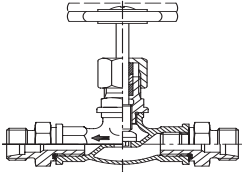
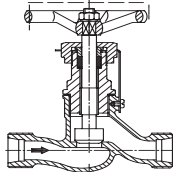
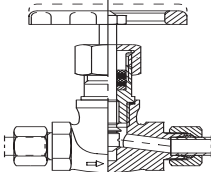
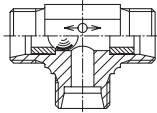
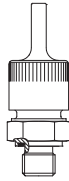
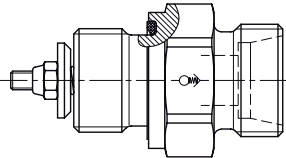
 <p><b>KH 3/2 (S)</b> p. O42</p> <p>EO 24° cone end / EO 24° cone end / EO 24° cone end</p>
 <p><b>KH 3/2-BSPP(S)</b> p. O43</p> <p>Female BSPP thread (ISO 1179-1) / Female BSPP thread (ISO 1179-1) / Female BSPP thread (ISO 1179-1)</p>



Visual index SAE ball valves/Ball valves for block structure

 <p><b>KH-B1V-S</b> p. O44</p> <p>Ball valve with SAE Flange connection</p>	 <p><b>KH-B2V-S</b> p. O45</p> <p>Ball valve with SAE Flange connection</p>
 <p><b>KH-B3V-S</b> p. O46</p> <p>Ball valve with SAE Flange connection</p>	 <p><b>KH-A-S</b> p. O47</p> <p>Ball valve with SAE Flange connection</p>
 <p><b>KH-A-S-71</b> p. O48</p> <p>Ball valve with SAE Flange adapter connection</p>	 <p><b>KH-B4V-S</b> p. O49</p> <p>Ball valve with SAE Flange connection ISO 6162 (1/2)</p>
 <p><b>KHB5V-S</b> p. O50</p> <p>Ball valve with Flange connection DIN EN 1092-1</p>	 <p><b>KHBLOCK</b> p. O51</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> p. 052</p> <p>EO 24° cone end / EO 24° cone end</p>	 <p><b>LD</b> p. 053</p> <p>EO 24° cone end / EO 24° cone end</p>
 <p><b>VDHA</b> p. 054</p> <p>EO tube end / EO tube end</p>	
 <p><b>WV</b> p. 055</p> <p>EO 24° cone end / EO 24° cone end / EO 24° cone end</p>	 <p><b>ELA/ELAE</b> p. 057</p> <p>Air-bleed valves</p>
 <p><b>LRV 08 ... 22L</b> p. 058</p> <p>EO 24° cone end</p>	



## Range of non return valves and alternating 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: RHDI
- 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

### Hand-operated Shut-off valves:

- for low pressure ratings up to PN 10 DV
- for medium pressure ratings up to PN 40 LD

### 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. The valve bodies must be held rigidly during assembly of the tube connection ends.
3. Test pressures for non return valves: PN in conformance with O.D. information see chapter C.
4. Pressure drop values please see p. C12 and diagrams.

### Caution!

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

## Range of hand-operated shut off valves and 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, 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.

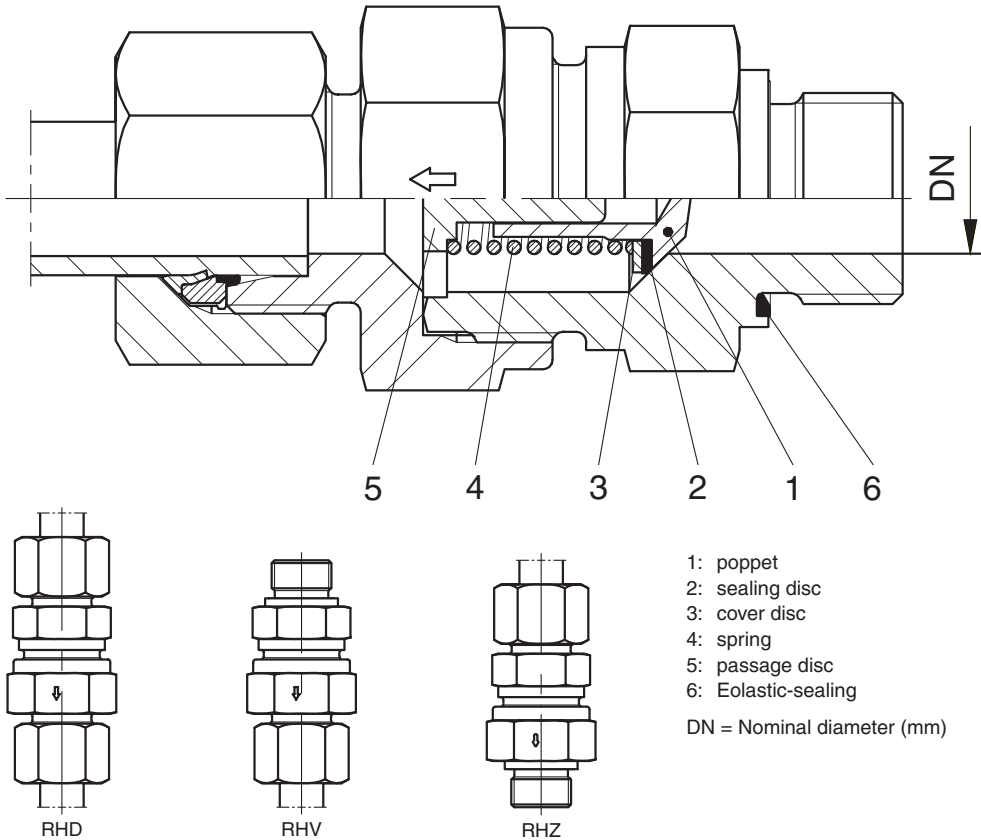
Perbunan = registered trademark of Bayer

### 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**



- 1: poppet
  - 2: sealing disc
  - 3: cover disc
  - 4: spring
  - 5: passage disc
  - 6: Eolastic-sealing
- DN = Nominal diameter (mm)

**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: ± 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:**

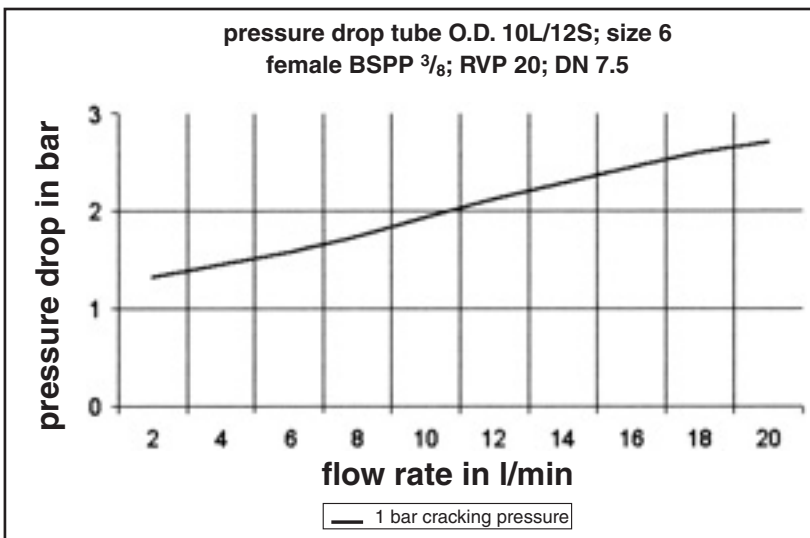
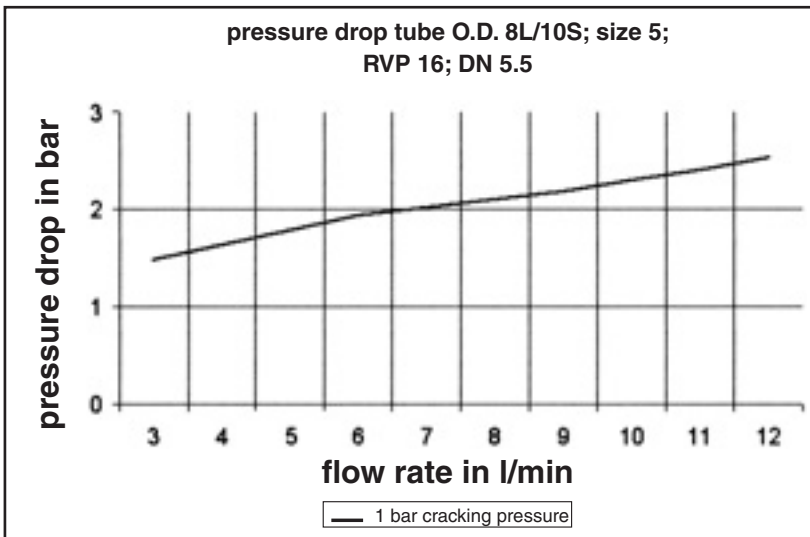
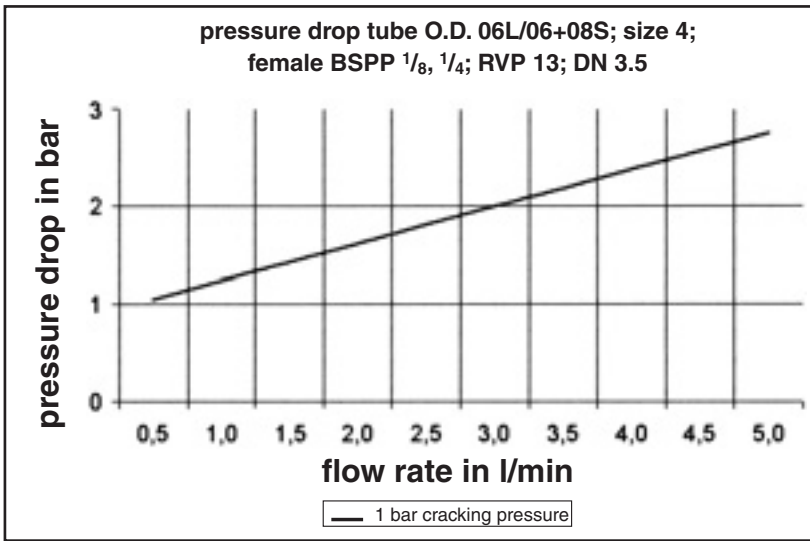
See assembly instructions for EO/EO 2 connections. Non-return valves are all packaged against contamination.

**Media:**

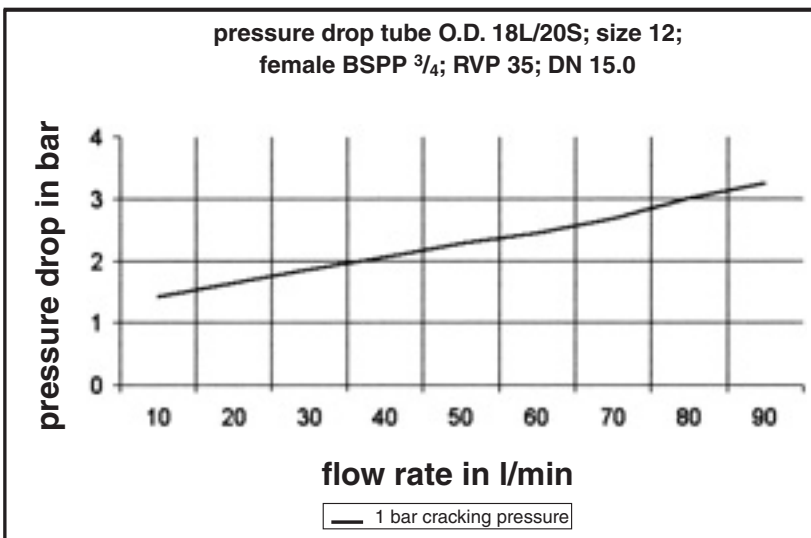
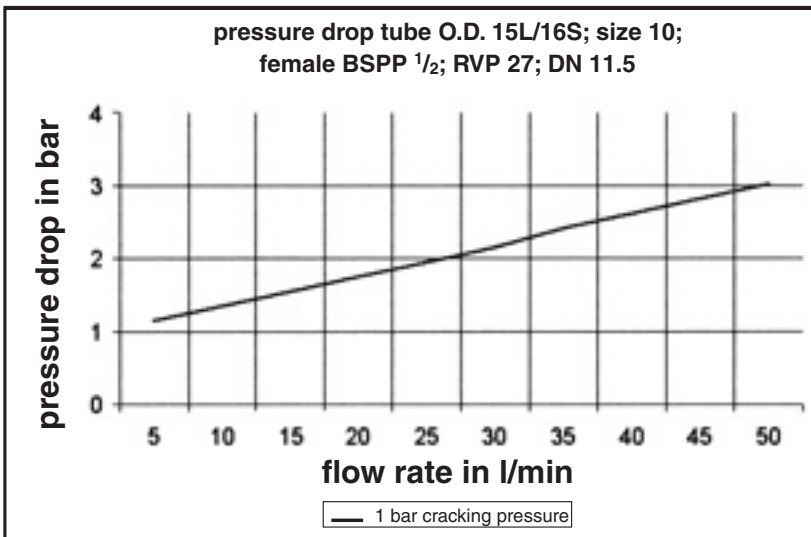
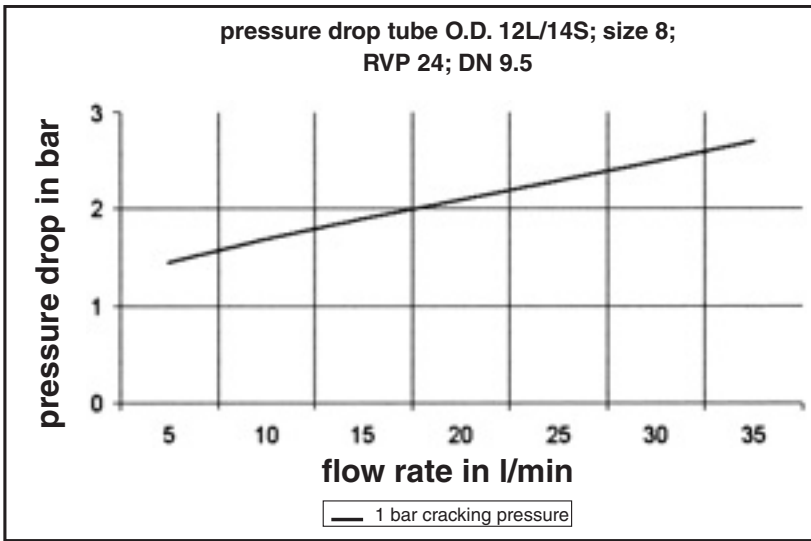
Hydraulic oil, low flammability hydraulic fluids (except for types HFC: for HFD types; FKM seals are necessary). Please indicate on order if used with compressed air. Not suitable for steam, combustible/explosive gases, or oxygen. For water applications, please consult Parker with details of water and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



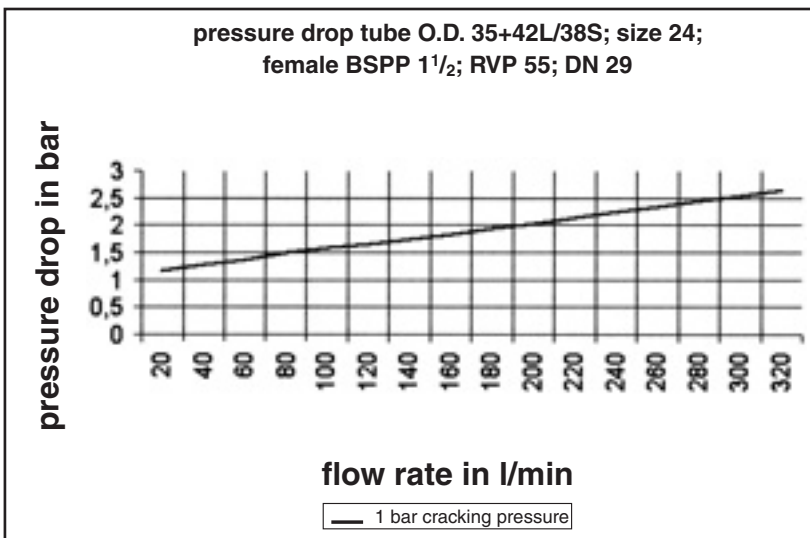
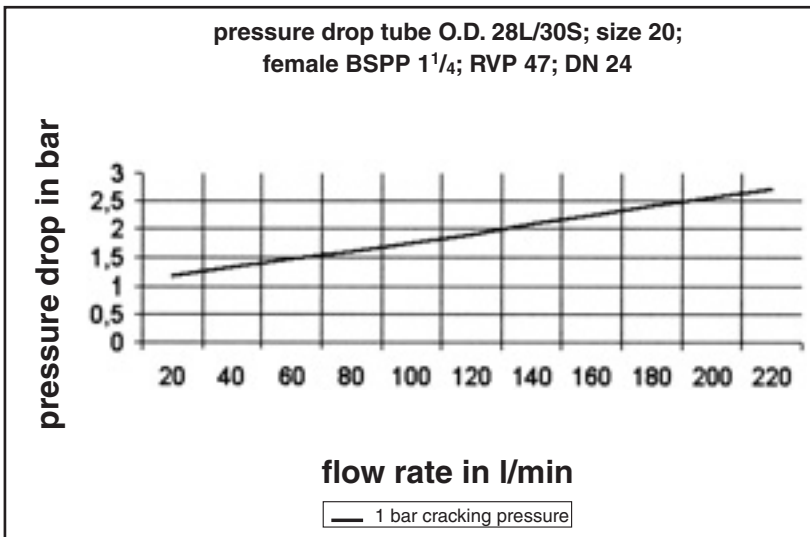
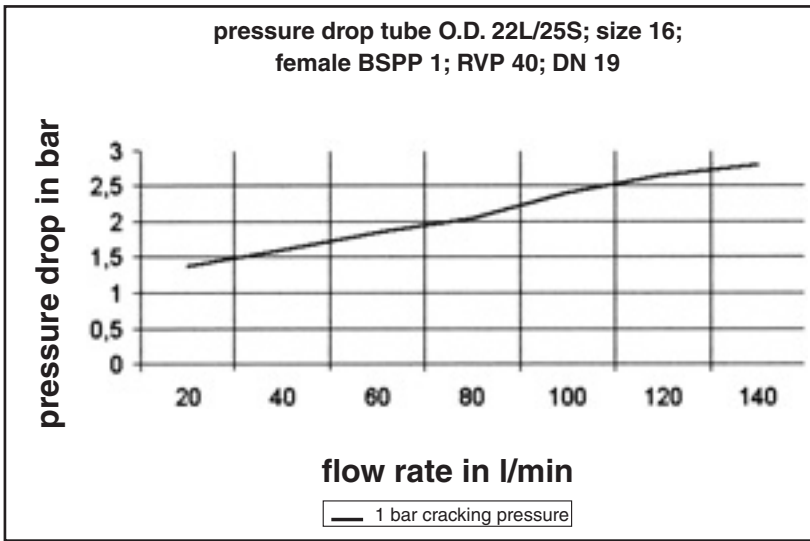
In all diagrams is the peak value of the flow rate in l/min. relating to the maximum permissible flow velocity of 8 m/sec.



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.

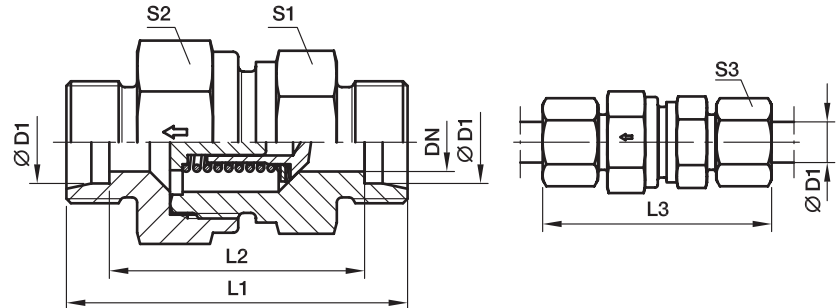


In all diagrams is the peak value of the flow rate in l/min. relating to the maximum permissible flow velocity of 8 m/sec.



## RHD Non return valve

EO 24° cone end / EO 24° cone end



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

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

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

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

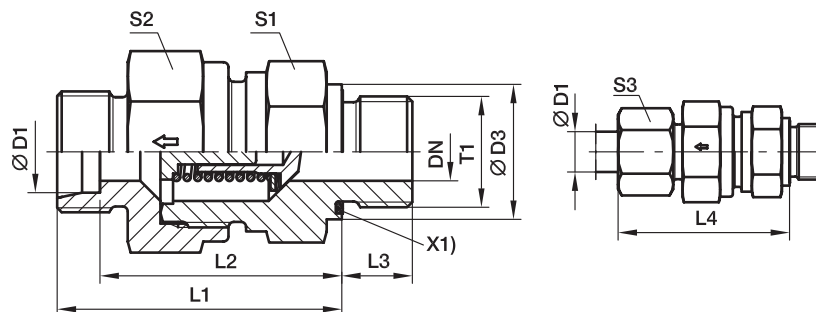
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

\*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) Eolastic sealing

Series	D1	T1	CF DN	71 DN	D3	CF L1	71 L1	L2	L3	L4	S1	CF S2	71 S2	S3	Weight 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	RHV06LREDO	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	RHV08LREDO	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	RHV10LREDO	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	RHV12LREDO	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	RHV15LREDO	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	RHV18LREDO	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	RHV22LREDO	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	RHV28LREDO	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	RHV35LREDO	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	RHV42LREDO	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	RHV06SREDO	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	RHV08SREDO	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	RHV10SREDO	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	RHV12SREDO	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	RHV14SREDO	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	RHV16SREDO	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	RHV20SREDO	420	250
	25	G 1 A	19.0	19.0	40	-	66.5	54.5	18	78.5	46	55	50	46	648	RHV25SREDO	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	RHV30SREDO	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	RHV38SREDO	250	250

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

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

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

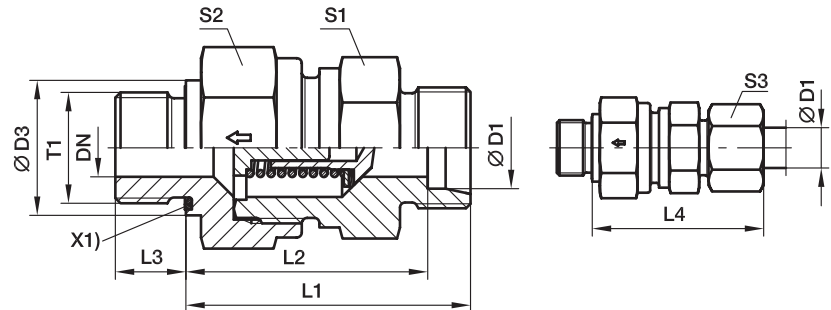
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

\*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	RHV06LREDO <sup>MD</sup> CF	NBR
Stainless steel	71	RHV06LREDO <sup>MD</sup> 71	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 DN	71 DN	D3	CF L1	71 L1	L2	L3	L4	S1	CF S2	71 S2	S3	Weight 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

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

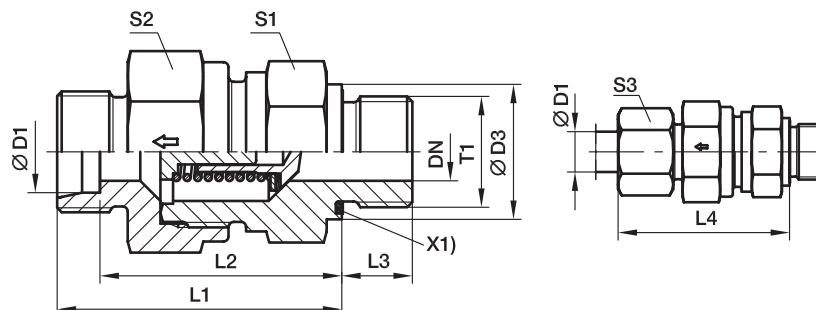
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

\*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	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) Eolastic sealing

Series	D1 	T1	CF DN	71 DN	D3	CF L1	71 L1	L2	L3	L4	S1	CF S2	71 S2	S3	Weight g/1 piece	Order code*	PN (bar) <sup>1)</sup>	
																	CF	71
L <sup>3)</sup>	06	M 10×1	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	23.0	23.0	40	72.0	–	63.0	18	79.5	50	55	55	41	722	RHV28LMEDOMD	250	100
	35	M 42×2	29.0	29.0	50	81.0	–	69.0	20	90.5	60	65	60	50	1053	RHV35LMEDOMD	250	100
	42	M 48×2	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	15.0	15.0	32	61.0	–	52.0	16	73.5	41	50	46	36	521	RHV20SMEDOMD	420	250
	25	M 33×2	19.0	19.0	40	67.0	–	54.5	18	78.5	46	55	50	46	648	RHV25SMEDOMD	420	250
	30	M 42×2	24.0	24.0	50	78.0	–	64.0	20	90.5	60	60	60	50	1178	RHV30SMEDOMD	250	250
	38	M 48×2	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 17.

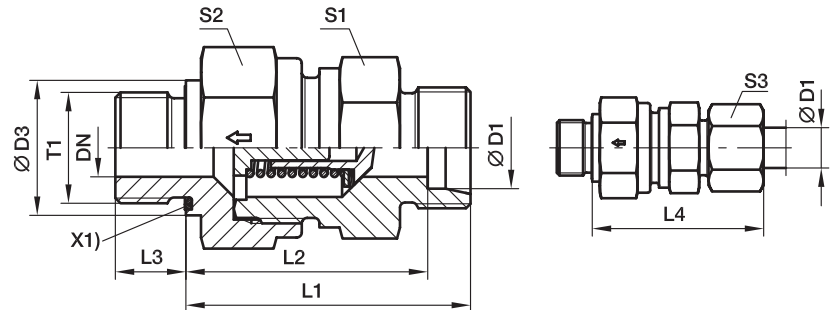
\*Please add the **suffixes** below according to the material/surface required.

Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional suffix needed)
Steel, zinc plated., Cr(VI)-free	CF	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 g/1 piece	Order code*	PN (bar) <sup>1)</sup>	
														CF	71
L <sup>3)</sup>	06	M 10×1	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	23.0	40	71.5	64.0	18	80.5	50	55	41	721	RHZ28LMEDOMD	250	100
	35	M 42×2	29.0	50	80.5	70.0	20	91.5	60	65	50	1078	RHZ35LMEDOMD	250	100
	42	M 48×2	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	15.0	32	60.5	50.0	16	71.5	41	50	36	487	RHZ20SMEDOMD	420	250
	25	M 33×2	19.0	40	68.0	54.5	18	78.5	46	55	46	647	RHZ25SMEDOMD	420	250
	30	M 42×2	24.0	50	77.5	64.0	20	90.5	60	60	50	1180	RHZ30SMEDOMD	250	250
	38	M 48×2	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

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

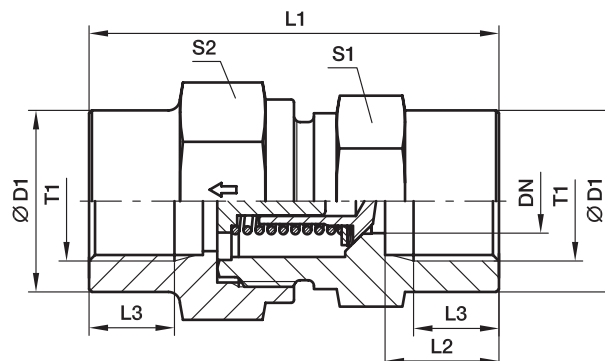
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

\*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	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 g/1 piece	Order code*	PN (bar) <sup>1)</sup>	
											CF	71
L <sup>3)</sup>	G 11/18	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

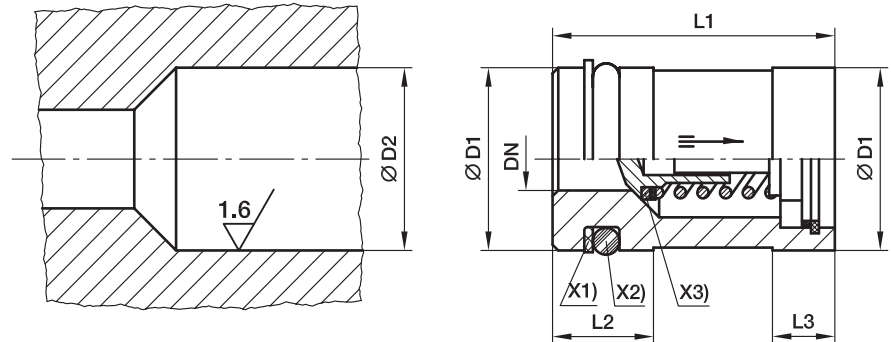
$\frac{PN \text{ (bar)}}{10} = PN \text{ (MPa)}$

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	RHDI1/8CF	NBR
Stainless steel	71	RHDI1/871	VIT

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

## RVP Non return valve cartridge



- X1) Supporting ring PTFE
- X2) O-ring NBR
- X3) Sealing disc NBR

Valve ITL	DN	D1	D2	L1 ± 0.15	L2	L3	O-ring	Supporting ring	Weight 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 +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 +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 +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 +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 +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 +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 +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 +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 +0.1</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

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

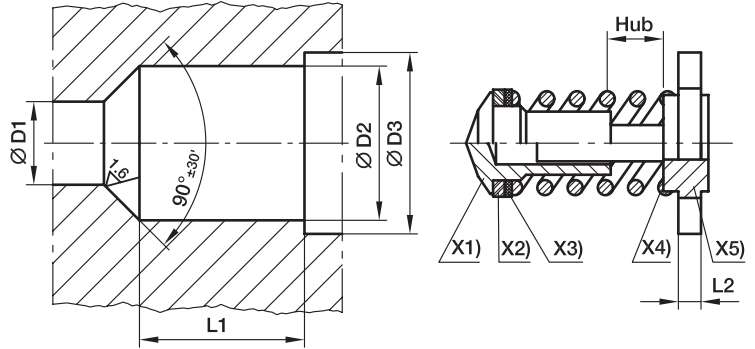
**Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.**

\*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	RHP13CF	NBR
Stainless steel	71	RHP1371	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



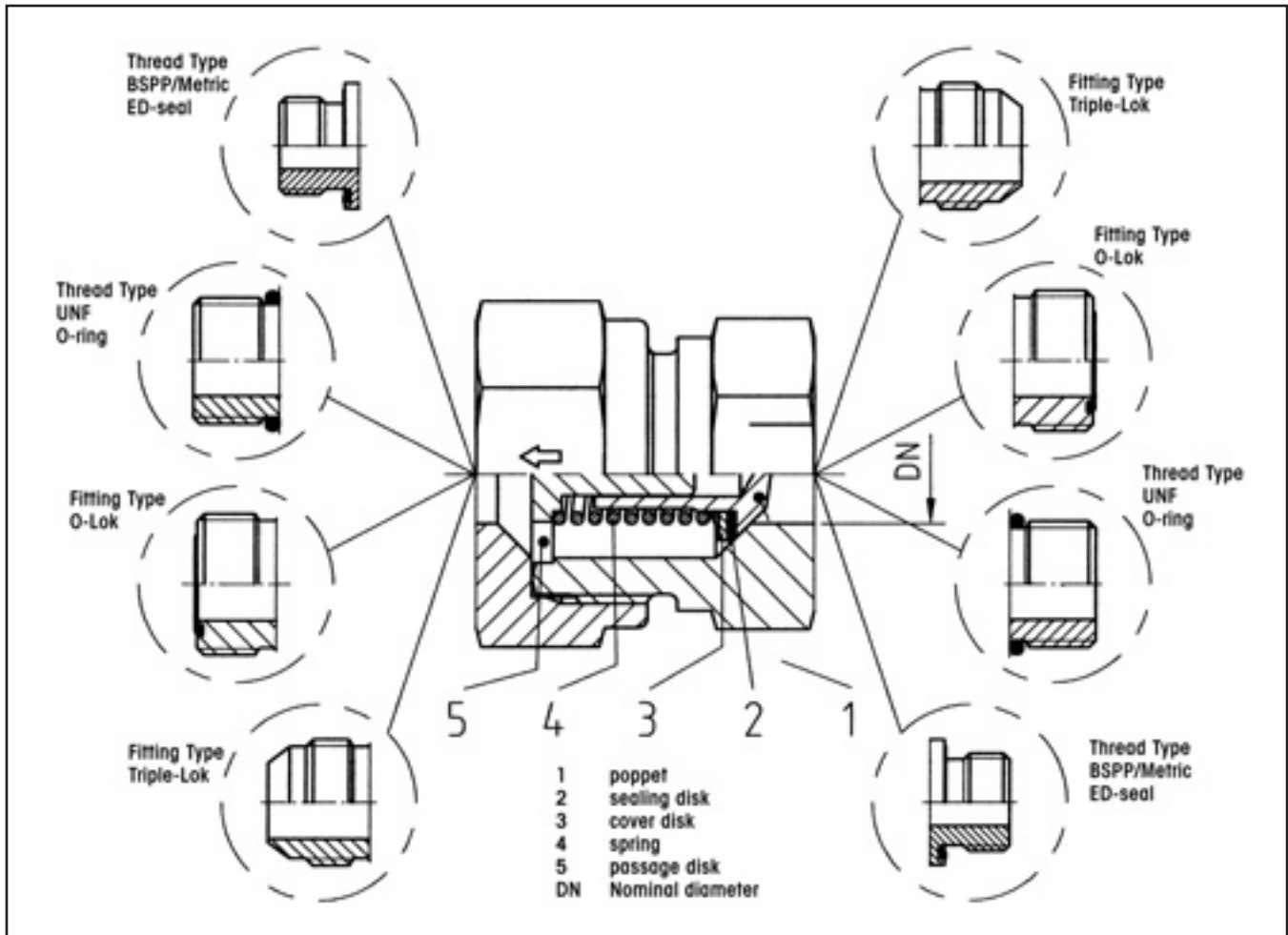
Series	Tube O.D.	D1 <sup>+0.1</sup>	D2 <sup>+0.1</sup>	D3 <sup>+0.1</sup>	L1 <sup>+0.1</sup>	L2	Hub	Weight g/1 piece	Order code*	PN (bar) <sup>1)</sup>	
										CF	71
L/S/S	06/06/08	3.5	7.5	8.6	8.2	2.0	1.0	2	<b>ITL06L/06+08S</b>	*	*
L/S	08/10	5.5	10.2	11.6	11.0	2.0	1.7	4	<b>ITL08L/10S</b>	*	*
L/S	10/12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

\* = item deliverable

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	ITL06L/06+008S	NBR
Stainless steel	71	ITL06L71/06+008S	VIT

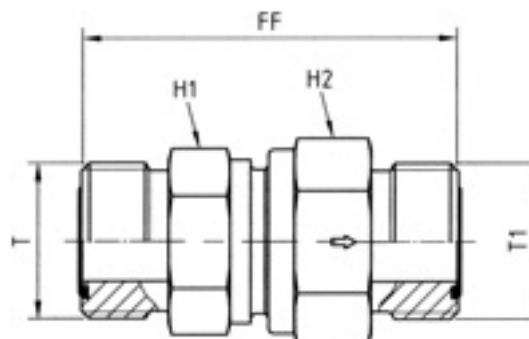
**RHD/V/Z Non return valves with O-Lok® or Triple-Lok® connections**

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

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

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

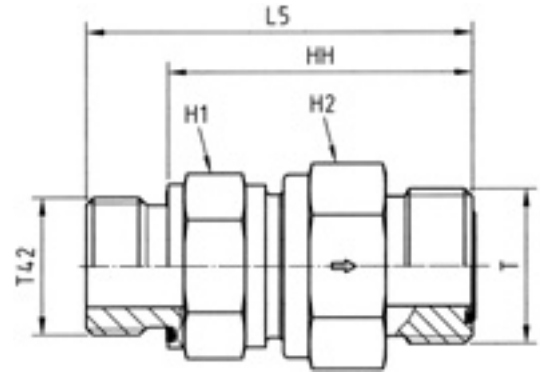
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

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

Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional 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 O.D.		BSPP thread T42	ORFS (UN/UNF) thread T	H1	H2	L5	HH	DN (Nom. diam.)	Weight g/1 piece	Order code*	PN (bar) <sup>1)</sup>
mm	Inch										CF
6	1/4	G 1/8	9/16-18UNF	19	19	44.5	36.5	3.5	92	<b>4RHV42EDMLOS</b>	420
8, 10	5/16, 3/8	G 1/4	11/16-16UNF	22	24	56.5	44.5	6.5	165	<b>6RHV42EDMLOS</b>	420
12	1/2	G 3/8	13/16-16UNF	24	27	61.5	49.5	7.5	191	<b>8RHV42EDMLOS</b>	420
14, 15, 16	5/8	G 1/2	1-14UNF	32	36	70.0	56.0	11.5	366	<b>10RHV42EDMLOS</b>	420
18, 20	3/4	G 3/4	1 3/16-12UNF	41	46	77.5	63.5	15.0	631	<b>12RHV42EDMLOS</b>	420
22, 25	1	G 1	1 7/16-12UNF	46	50	84.0	66.0	19.0	863	<b>16RHV42EDMLOS</b>	420
28, 30, 32	1 1/4	G 1 1/4	1 11/16-12UNF	60	60	95.0	75.0	24.0	1403	<b>20RHV42EDMLOS</b>	250
35, 38	1 1/2	G 1 1/2	2-12UNF	65	70	105.0	83.0	29.0	1969	<b>24RHV42EDMLOS</b>	250

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

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

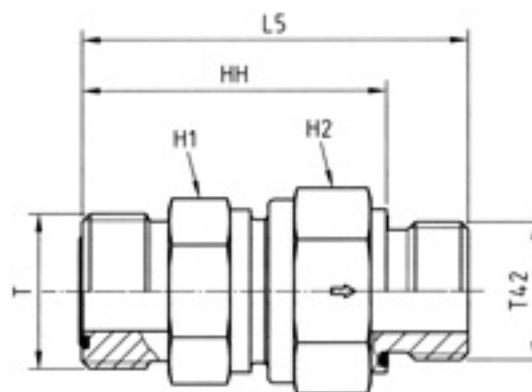
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

\*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	4RHV42EDMLOSCF	NBR

## RHZ42EDMLOS Non return valve

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



Tube O.D.		BSPP thread T42	ORFS (UN/UNF) thread T	H1	H2	L5	HH	DN (Nom. diam.)	Weight g/1 piece	Order code*	PN (bar) <sup>1)</sup>
mm	Inch										CF
6	1/4	G 1/8	9/16-18UNF	19	19	44.5	36.5	3.5	91	<b>4RHZ42EDMLOS</b>	420
8, 10	5/16, 3/8	G 1/4	11/16-16UNF	22	24	56.5	44.5	6.5	161	<b>6RHZ42EDMLOS</b>	420
12	1/2	G 3/8	13/16-16UNF	24	27	61.5	49.5	7.5	190	<b>8RHZ42EDMLOS</b>	420
14, 15, 16	5/8	G 1/2	1-14UNF	32	36	70.0	56.0	11.5	348	<b>10RHZ42EDMLOS</b>	420
18, 20	3/4	G 3/4	1 3/16-12UNF	41	46	77.5	53.5	15.0	634	<b>12RHZ42EDMLOS</b>	420
22, 25	1	G 1	1 7/16-12UNF	46	50	84.0	66.0	19.0	863	<b>16RHZ42EDMLOS</b>	420
28, 30, 32	1 1/4	G 1 1/4	1 11/16-12UNF	60	60	95.0	75.0	24.0	1397	<b>20RHZ42EDMLOS</b>	250
35, 38	1 1/2	G 1 1/2	2-12UNF	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 17.

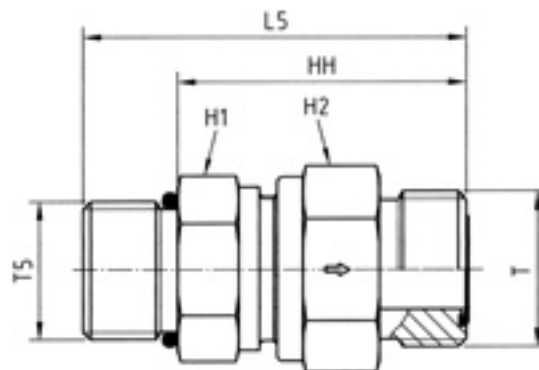
\*Please add the **suffixes** below according to the material/surface required.

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



## RHV5OMLOS Non return valve

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



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

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

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

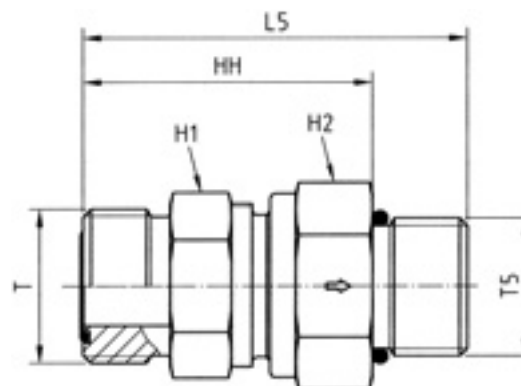
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

\*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	RHV5OMLOSCF	NBR

## RHZ5OMLOS Non return valve

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



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

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

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

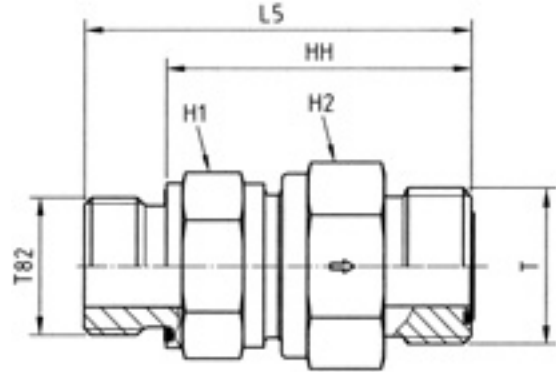
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

\*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	4RHZ5OMLOSCF	NBR

## RHV82EDMLOS Non return valve

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



Tube O.D.		metric thread T82	ORFS (UN/UNF) thread T	H1	H2	L5	HH	DN (Nom. diam.)	Weight g/1 piece	Order code*	PN (bar) <sup>1)</sup>
mm	Inch										CF
6	1/4	M12×1.5	9/16-18UNF	19	19	48.5	36.5	3.5	89	<b>4M12RHV82EDMLOS</b>	420
8, 10	5/16, 3/8	M16×1.5	11/16-16UNF	22	24	56.5	44.5	5.5	157	<b>6M16RHV82EDMLOS</b>	420
12	1/2	M18×1.5	13/16-16UNF	24	27	61.5	49.5	7.5	195	<b>8M18RHV82EDMLOS</b>	420
14, 15, 16	5/8	M22×1.5	1-14UNF	32	36	72.0	58.0	11.5	369	<b>10M22RHV82EDMLOS</b>	420
18, 20	3/4	M27×2.0	1 3/16-12UNF	41	46	79.5	63.5	15.0	628	<b>12M27RHV82EDMLOS</b>	420
22, 25	1	M33×2.0	1 7/16-12UNF	46	50	84.0	66.0	19.0	867	<b>16M33RHV82EDMLOS</b>	420
28, 30, 32	1 1/4	M42×2.0	1 11/16-12UNF	60	60	95.0	75.0	24.0	1409	<b>20M42RHV82EDMLOS</b>	250
35, 38	1 1/2	M48×2.0	2-12UNF	65	70	103.0	81.0	29.0	1970	<b>24M48RHV82EDMLOS</b>	250

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

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

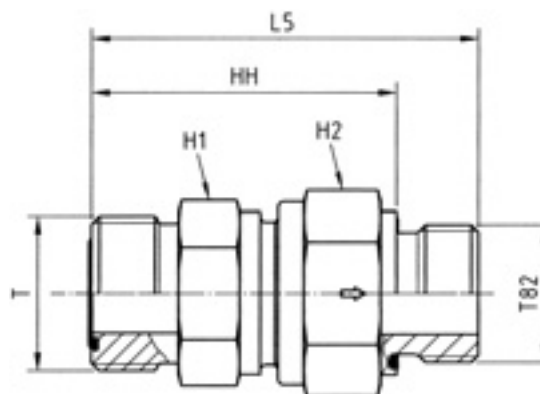
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

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

Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional suffix needed)
Steel, zinc plated., Cr(VI)-free	CF	4M12RHV82EDMLOSCF	NBR

## RHZ82EDMLOS Non return valve

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



Tube O.D.		metric thread T82	ORFS (UN/UNF) thread T	H1	H2	L5	HH	DN (Nom. diam.)	Weight g/1 piece	Order code*	PN (bar) <sup>1)</sup>
mm	Inch										CF
6	1/4	M12×1.5	9/16-18UNF	19	19	48.5	36.5	3.5	89	<b>4M12RHZ82EDMLOS</b>	420
8, 10	5/16, 3/8	M16×1.5	11/16-16UNF	24	27	59.1	47.1	7.5	156	<b>6M16RHZ82EDMLOS</b>	420
12	1/2	M18×1.5	13/16-16UNF	24	27	61.5	49.5	7.5	195	<b>8M18RHZ82EDMLOS</b>	420
14, 15, 16	5/8	M22×1.5	1-14UNF	32	36	70.0	56.0	11.5	352	<b>10M22RHZ82EDMLOS</b>	420
18, 20	3/4	M27×2.0	1 3/16-12UNF	41	46	77.5	61.5	15.0	608	<b>12M27RHZ82EDMLOS</b>	420
22, 25	1	M33×2.0	1 7/16-12UNF	46	50	84.0	66.0	19.0	965	<b>16M33RHZ82EDMLOS</b>	420
28, 30, 32	1 1/4	M42×2.0	1 11/16-12UNF	60	60	95.0	75.0	24.0	1396	<b>20M42RHZ82EDMLOS</b>	250
35, 38	1 1/2	M48×2.0	2-12UNF	65	70	115.0	93.0	29.0	1978	<b>24M48RHZ82EDMLOS</b>	250

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

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

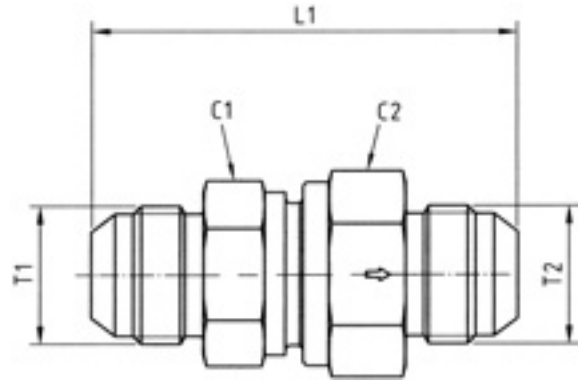
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

\*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	4M12RHZ82EDMLOSCF	NBR

## RHDMTXS Non return valve

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



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

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

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

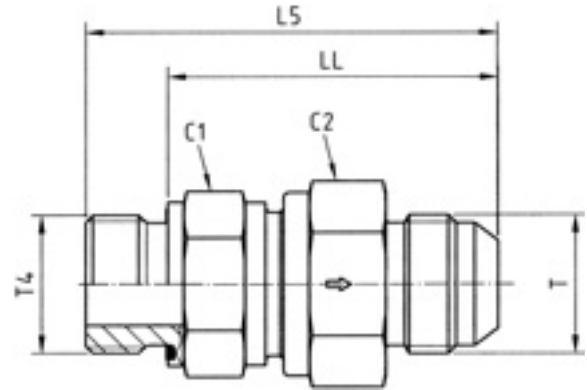
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

\*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	4RHDMTXSCF	NBR

## RHV42EDMXS Non return valve

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



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

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

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

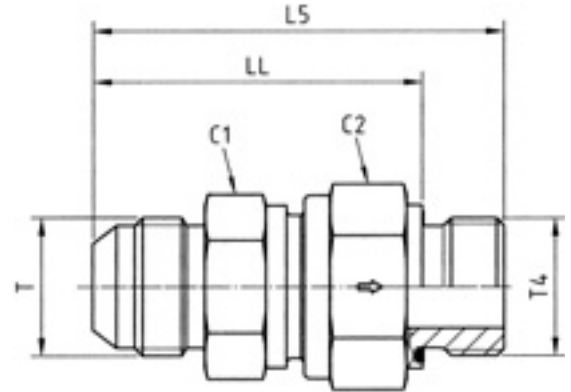
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

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

Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional 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 O.D.		BSPP thread	Thread JIC SAE T	C1	C2	L5	LL	DN (Nom. diam.)	Weight g/1 piece	Order code*	PN (bar) <sup>1)</sup>
mm	Inch	T4	T							CF	
6	1/4	G 1/8	7/16-20UNF	19	19	48.0	40.0	3.5	89	<b>4RHZ42EDMXS</b>	420
8	5/16	G 1/4	1/2-20UNF	22	24	59.0	47.0	5.5	156	<b>5-4RHZ42EDMXS</b>	420
10	3/8	G 1/4	9/16-18UNF	24	27	62.0	50.0	7.5	190	<b>6RHZ42EDMXS</b>	420
12	1/2	G 3/8	3/4-16UNF	27	32	66.0	54.0	9.5	278	<b>8RHZ42EDMXS</b>	420
14, 15, 16	5/8	G 1/2	7/8-14UNS	32	36	74.0	60.0	11.5	348	<b>10RHZ42EDMXS</b>	350
18, 20	3/4	G 3/4	1 1/16-12UN	41	46	82.5	66.5	15.0	634	<b>12RHZ42EDMXS</b>	350
25	1	G 1	1 5/16-12UN	46	50	89.5	71.5	19.0	863	<b>16RHZ42EDMXS</b>	280
28, 30, 32	1 1/4	G 1 1/4	1 5/8-12UN	60	60	102.0	82.0	24.0	1397	<b>20RHZ42EDMXS</b>	250
35, 38	1 1/2	G 1 1/2	1 7/8-12UN	65	70	115.0	93.0	29.0	2001	<b>24RHZ42EDMXS</b>	210

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

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

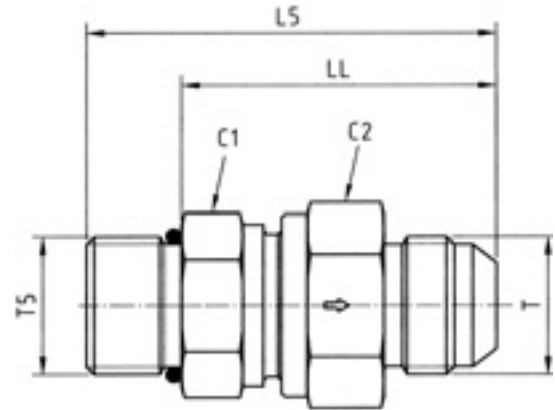
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

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

Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional 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 O.D.		Thread UNF T5	Thread JIC SAE T	C1	C2	L5	LL	DN (Nom. diam.)	Weight g/1 piece	Order code*	PN (bar) <sup>1)</sup>
mm	Inch										CF
6	1/4	7/16-20UNF	7/16-18UNF	19	19	49.5	38.5	3.5	92	<b>4RHV5OMXS</b>	420
8	5/16	1/2-20UNF	1/2-20UNF	22	24	56.5	45.5	5.5	165	<b>5RHV5OMXS</b>	420
10	3/8	9/16-18UNF	9/16-18UNF	24	27	59.5	47.5	7.5	191	<b>6RHV5OMXS</b>	420
12	1/2	3/4-16UNF	3/4-16UNF	27	32	66.5	52.5	9.5	277	<b>8RHV5OMXS</b>	420
14, 15, 16	5/8	7/8-14UNS	7/8-14UNS	32	36	75.0	59.0	11.5	366	<b>10RHV5OMXS</b>	350
18, 20	3/4	1 1/16-12UN	1 1/16-12UN	41	46	84.0	65.5	15.0	631	<b>12RHV5OMXS</b>	350
25	1	1 5/16-12UN	1 5/16-12UN	46	50	88.0	69.5	19.0	863	<b>16RHV5OMXS</b>	280
28, 30, 32	1 1/4	1 5/8-12UN	1 5/8-12UN	60	60	99.5	81.0	24.0	1403	<b>20RHV5OMXS</b>	250
35, 38	1 1/2	1 7/8-12UN	1 7/8-12UN	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.

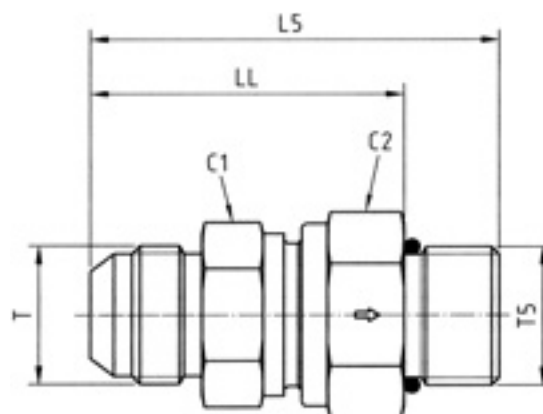
\*Please add the **suffixes** below according to the material/ surface required.

Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional 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 O.D.		Thread UNF T5	Thread JIC SAE T	C1	C2	L5	LL	DN (Nom. diam.)	Weight g/1 piece	Order code*	PN (bar) <sup>1)</sup>
mm	Inch										CF
6	1/4	7/16-20UNF	7/16-18UNF	19	19	49.5	38.5	3.5	91	<b>4RHZ5OMXS</b>	420
8	5/16	1/2-20UNF	1/2-20UNF	22	24	56.5	45.5	5.5	161	<b>5RHZ5OMXS</b>	420
10	3/8	9/16-18UNF	9/16-18UNF	24	27	59.5	47.5	7.5	190	<b>6RHZ5OMXS</b>	420
12	1/2	3/4-16UNF	3/4-16UNF	27	32	66.5	52.5	9.5	278	<b>8RHZ5OMXS</b>	420
14, 15, 16	5/8	7/8-14UNS	7/8-14UNS	32	36	75.0	59.0	11.5	348	<b>10RHZ5OMXS</b>	350
18, 20	3/4	1 1/16-12UN	1 1/16-12UN	41	46	84.0	65.5	15.0	634	<b>12RHZ5OMXS</b>	350
25	1	1 5/16-12UN	1 5/16-12UN	46	50	88.0	69.5	19.0	863	<b>16RHZ5OMXS</b>	280
28, 30, 32	1 1/4	1 5/8-12UN	1 5/8-12UN	60	60	99.5	81.0	24.0	1397	<b>20RHZ5OMXS</b>	250
35, 38	1 1/2	1 7/8-12UN	1 7/8-12UN	65	70	109.5	91.0	29.0	2001	<b>24RHZ5OMXS</b>	210

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

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

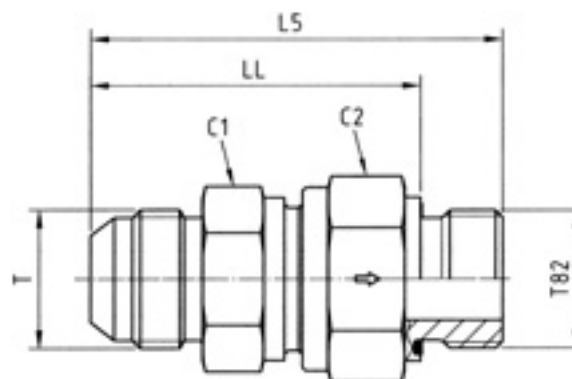
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

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

Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional 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 O.D.		Metric thread T82	Thread JIC SAE T	C1	C2	L5	LL	DN (Nom. diam.)	Weight g/1 piece	Order code*	PN (bar) <sup>1)</sup>
mm	Inch										CF
6	1/4	M10×1.0	7/16-20UNF	19	19	48.0	40.0	3.5	89	<b>4M10RHV82EDMXS</b>	420
8	5/16	M12×1.5	1/2-20UNF	22	24	59.5	47.5	5.5	157	<b>5M12RHV82EDMXS</b>	420
10	3/8	M14×1.5	9/16-18UNF	24	27	62.0	50.0	7.5	195	<b>6M14RHV82EDMXS</b>	420
12	1/2	M16×1.5	3/4-16UNF	27	32	67.0	55.0	9.5	274	<b>8M16RHV82EDMXS</b>	420
14, 15, 16	5/8	M18×1.5	7/8-14UNS	32	36	73.5	61.5	11.5	369	<b>10M18RHV82EDMXS</b>	350
18, 20	3/4	M27×2.0	1 1/16-12UN	41	46	84.5	68.5	15.0	628	<b>12M27RHV82EDMXS</b>	350
25	1	M33×2.0	1 5/16-12UN	46	50	89.5	71.5	19.0	867	<b>16M33RHV82EDMXS</b>	280
28, 30, 32	1 1/4	M42×2.0	1 5/8-12UN	60	60	102.0	82.0	24.0	1409	<b>20M42RHV82EDMXS</b>	250
35, 38	1 1/2	M48×2.0	1 7/8-12UN	65	70	113.0	91.0	29.0	1970	<b>24M48RHV82EDMXS</b>	210

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

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

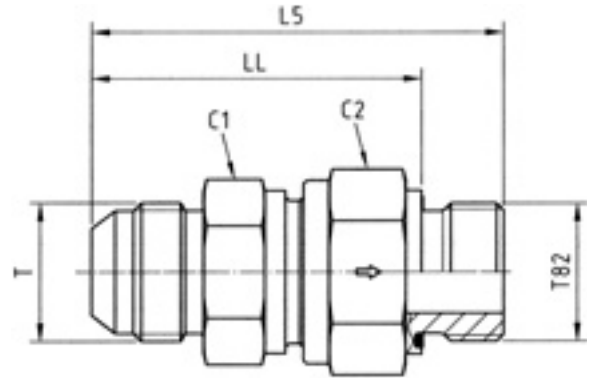
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

\*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	4M10RHV82EDMXSCF	NBR

## RHZ82EDMXS Non return valve

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



Tube O.D.		Metric thread T82	Thread JIC SAE T	C1	C2	L5	LL	DN (Nom. diam.)	Weight g/1 piece	Order code*	PN (bar) <sup>1)</sup>
mm	Inch										CF
6	1/4	M10×1.0	7/16-20UNF	19	19	48.0	40.0	3.5	89	<b>4M10RHZ82EDMXS</b>	420
8	5/16	M12×1.5	1/2-20UNF	22	24	59.5	47.5	5.5	156	<b>5M12RHZ82EDMXS</b>	420
10	3/8	M14×1.5	9/16-18UNF	24	27	62.0	50.0	7.5	195	<b>6M14RHZ82EDMXS</b>	420
12	1/2	M16×1.5	3/4-16UNF	27	32	66.0	54.0	9.5	272	<b>8M16RHZ82EDMXS</b>	420
14, 15, 16	5/8	M18×1.5	7/8-14UNS	32	36	71.5	59.5	11.5	352	<b>10M18RHZ82EDMXS</b>	350
18, 20	3/4	M27×2.0	1 1/16-12UN	41	46	82.5	66.5	15.0	608	<b>12M27RHZ82EDMXS</b>	350
25	1	M33×2.0	1 5/16-12UN	46	50	89.5	71.5	19.0	965	<b>16M33RHZ82EDMXS</b>	280
28, 30, 32	1 1/4	M42×2.0	1 5/8-12UN	60	60	102.0	82.0	24.0	1396	<b>20M42RHZ82EDMXS</b>	250
35, 38	1 1/2	M48×2.0	1 7/8-12UN	65	70	115.0	93.0	29.0	1807	<b>24M48RHZ82EDMXS</b>	210

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

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

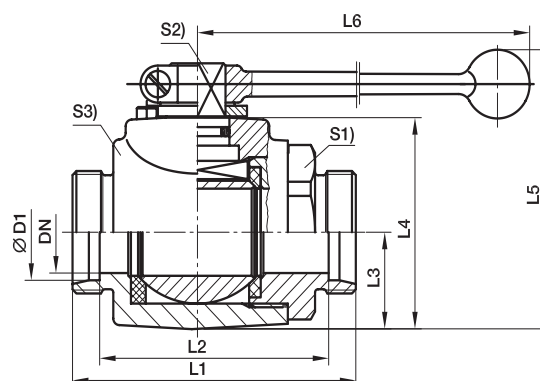
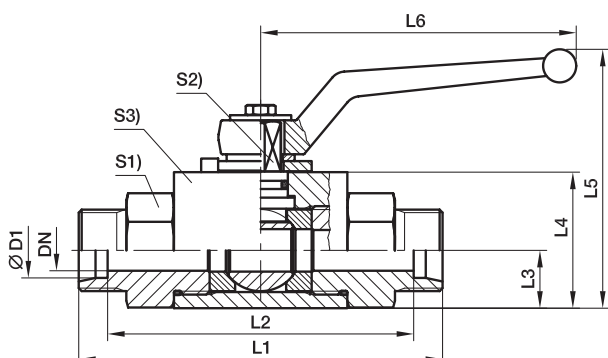
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

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

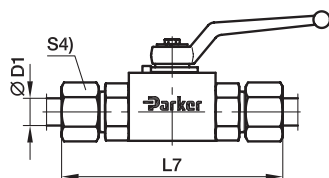
Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional suffix needed)
Steel, zinc plated., Cr(VI)-free	CF	4M10RHZ82EDMXSCF	NBR

## KH 2-way ball valve steel

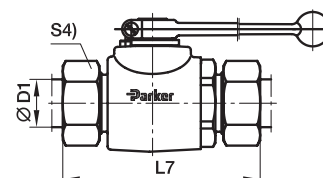
EO 24° cone end / EO 24° cone end



DN 4-25



DN 32-40



Series	D1 	DN	L1	L2	L3	L4	L5	L6	L7	S1	S2	S3	S4	Weight g/1 piece	Order code*	PN (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	
	S <sup>4)</sup>	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	
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

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

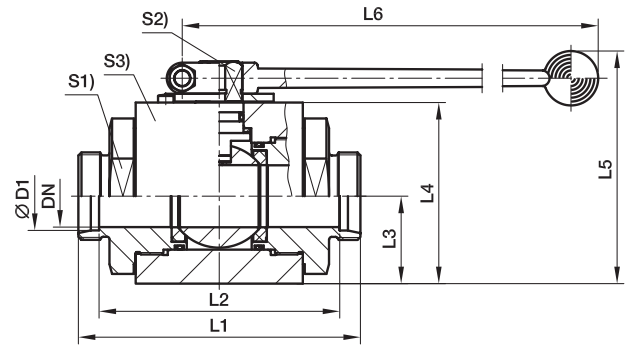
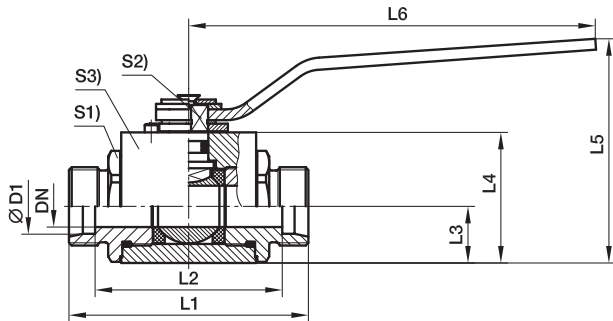
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

\*Standard surface: bronzed  
For Cr(VI)-free please add CF  
Example: **KH06LCFX**

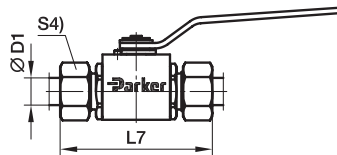
Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional suffix needed)
Steel	DIN 50938-FE//A/T4	KH06LX	POM / NBR

## KH 2-way ball valve stainless steel

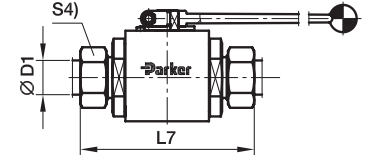
EO 24° cone end / EO 24° cone end



DN 4-25



DN 32-40



Series	D1 	DN	L1	L2	L3	L4	L5	L6	L7	S1	S2	S3	S4	Weight g/1 piece	Order code*	PN (bar) <sup>1)</sup> 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

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

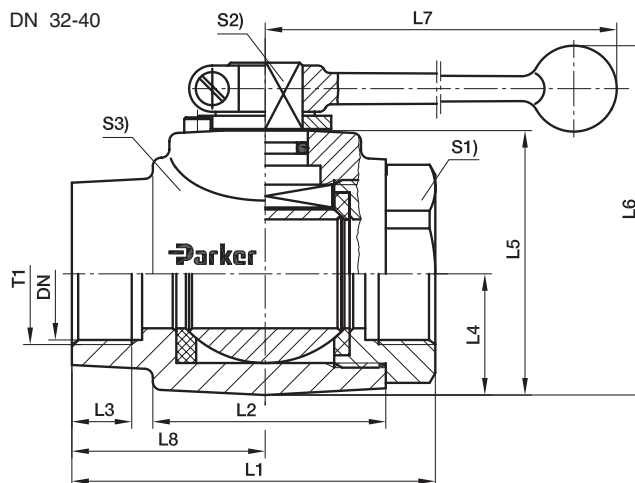
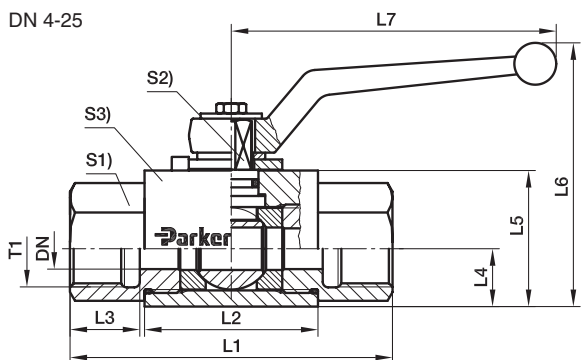
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

\*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)



T1	DN	L1	L2	L3	L4	L5	L6	L7	L8	S1	S2	S3	Weight g/1 piece	Order code*	PN (bar) <sup>1)</sup>
G 1/8	4	69	36	12	10.0	25	55.0	76	–	19	7	20	220	<b>KH1/8X</b>	500
G 1/4	6	69	36	12	10.0	25	55.0	76	–	19	7	20	210	<b>KH1/4X</b>	500
G 3/8	10	73	45	14	14.5	35	68.0	100	–	24	8	30	430	<b>KH3/8X</b>	500
G 1/2	12	82	51	15	17.0	40	92.0	112	–	30	10	35	670	<b>KH1/2X</b>	500
G 5/8	16	88	50	18	20.0	45	105.0	166	–	36	11	45	973	<b>KH5/8X</b>	400
G 3/4	20	93	60	18	24.0	55	113.0	187	–	41	14	45	1280	<b>KH3/4X</b>	400
G 1	25	113	70	20	26.0	60	118.0	187	–	50	14	55	1982	<b>KH1X</b>	400
G 1 1/4	32	110	70	20	36.5	80	180.5	320	58.5	60	17	73	2620	<b>KH11/4X</b>	315
G 1 1/4	25	134	70	20	26.0	60	118.0	187	–	50	14	55	2066	<b>KH11/4DN25X</b>	400
G 1 1/2	40	114	75	22	42.5	90	190.5	320	57.0	70	17	85	3989	<b>KH11/2X</b>	315
G 1 1/2	25	139	70	22	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

1) 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.

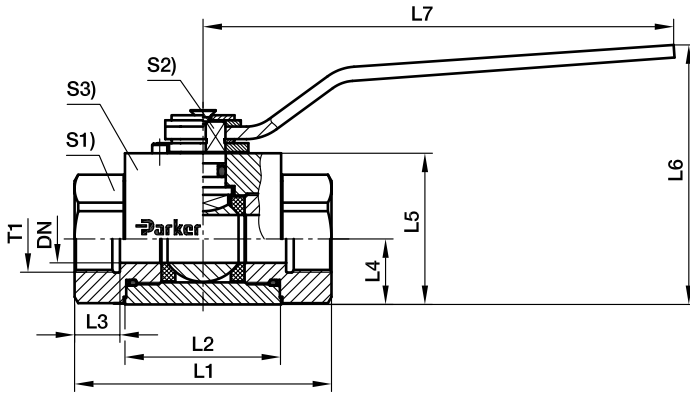
\*Standard surface: bronzed  
For Cr(VI)-free please add CF  
Example: **KH1/8CFX**

Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional suffix needed)
Steel	DIN 50938-FE//A/T4	KH1/8X	POM / NBR

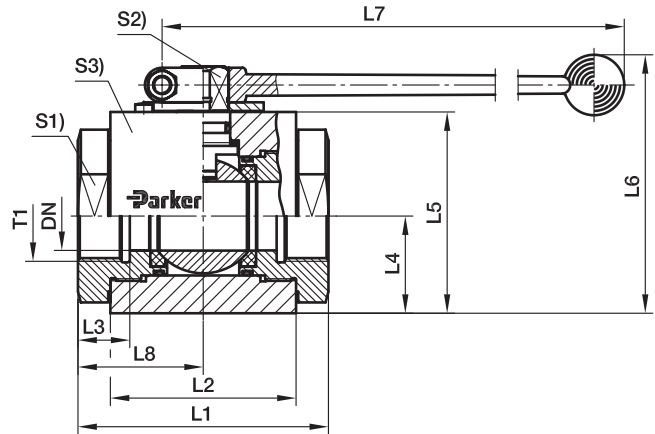
## KH 2-way BSPP ball valve stainless steel

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 g/1 piece	Order code*	PN (bar) <sup>1)</sup> 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

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

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

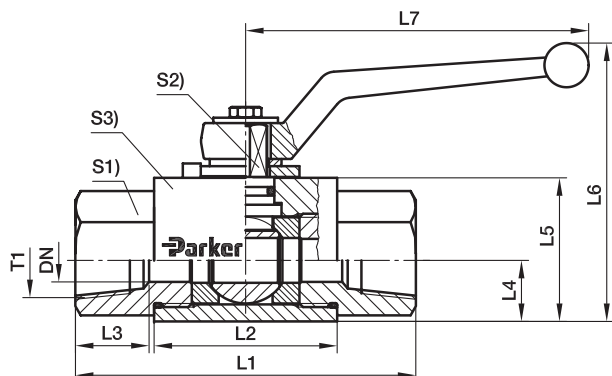
\*Please add the **suffixes** below according to the material/surface required.

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

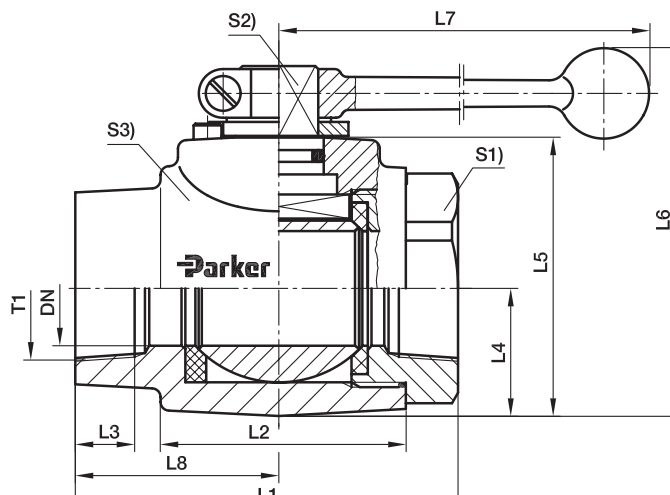
## KH 2-way NPT ball valve steel

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 g/1 piece	Order code*	PN (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 1/2 NPT	25	113	70	16.8	26.0	60	118.0	187		50	14	55	1970	<b>KH1NPTX</b>	400
1 1/4-11 1/2 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 1/2 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

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

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

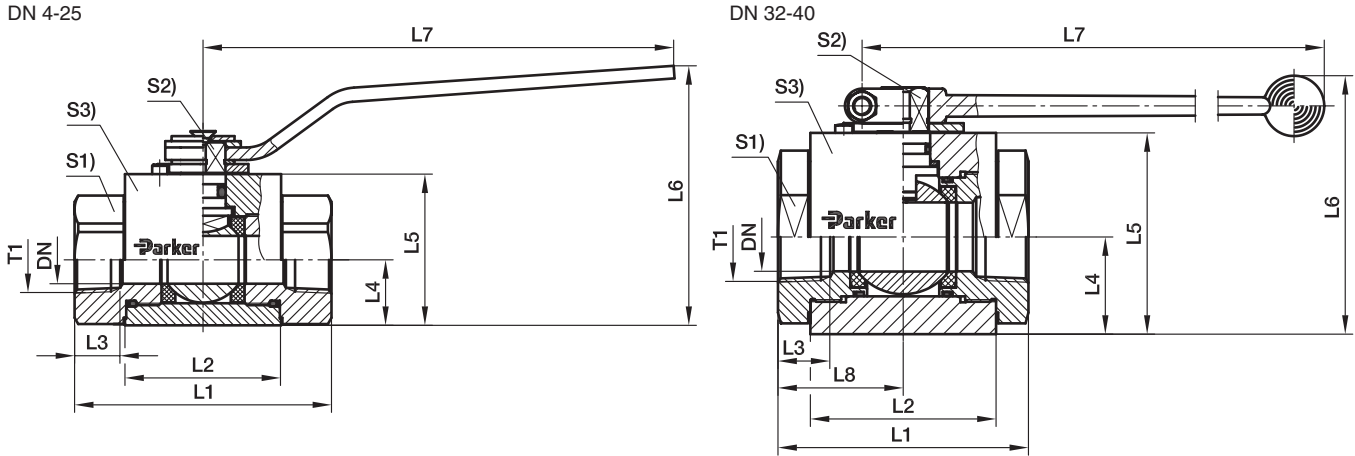
\*Standard surface: bronzed  
For Cr(VI)-free please add CF  
Example: **KH1/8NPTCFX**

Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional suffix needed)
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)



T1	DN	L1	L2	L3	L4	L5	L6	L7	L8	S1	S2	S3	Weight g/1 piece	Order code*	PN (bar) <sup>1)</sup> 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 1/2 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 1/2 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 1/2 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

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

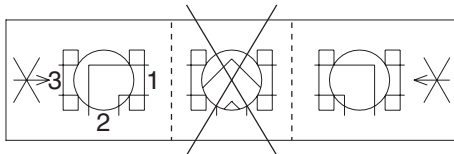
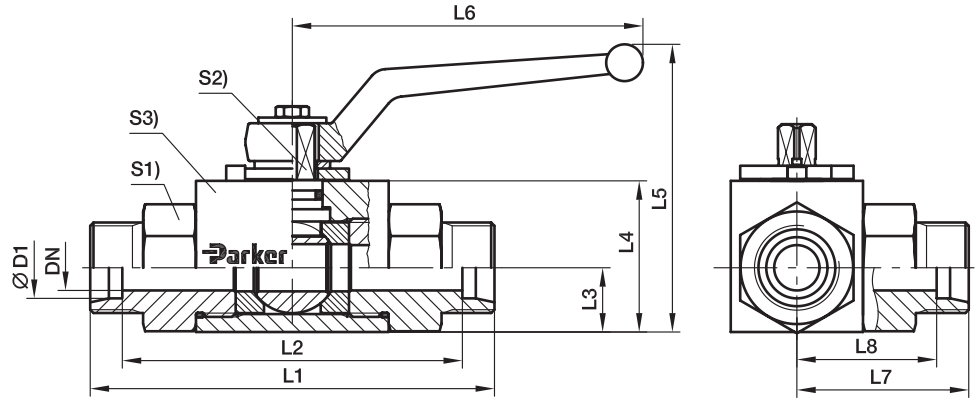
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

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

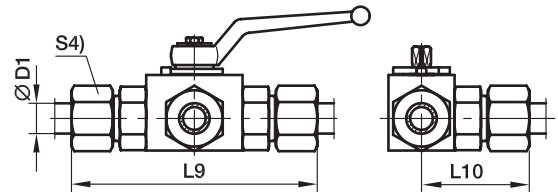
Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional suffix needed)
Stainless steel	without	KH1/8NPT71X	POM / NBR

## KH 3-way compact ball valve steel

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



### L-Version



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

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

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

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

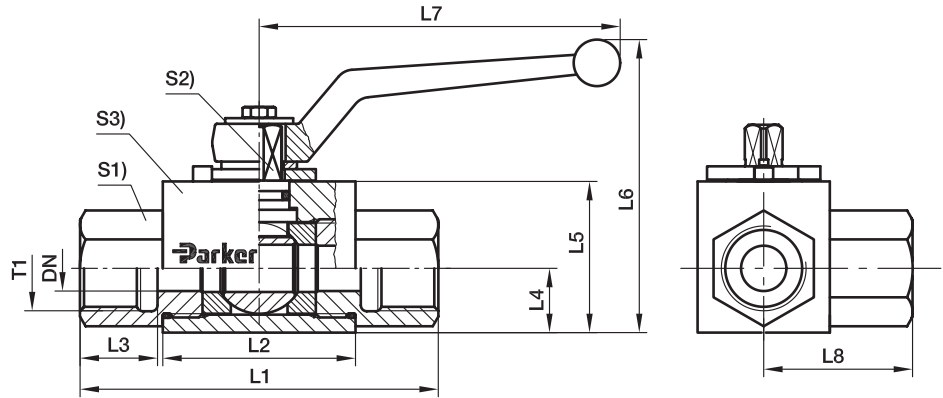
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page I7.

\*Standard surface: bronzed  
For Cr(VI)-free please add CF  
Example: **KH3/2-06LCFX**

Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional suffix needed)
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)

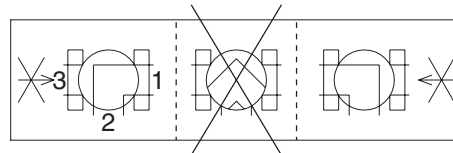


T1	DN	L1	L2	L3	L4	L5	L6	L7	L8	S1	S2	S3	Weight g/1 piece	Order code*	PN (bar) <sup>1)</sup>
G 1/8	4	69	36	12	15.0	30	55	76	34.5	19	7	30	270	<b>KH3/2-1/8X</b>	500
G 1/4	6	69	36	12	15.0	30	55	76	34.5	19	7	30	342	<b>KH3/2-1/4X</b>	500
G 3/8	10	73	45	14	14.5	35	68	100	36.5	24	8	40	563	<b>KH3/2-3/8X</b>	500
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

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

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



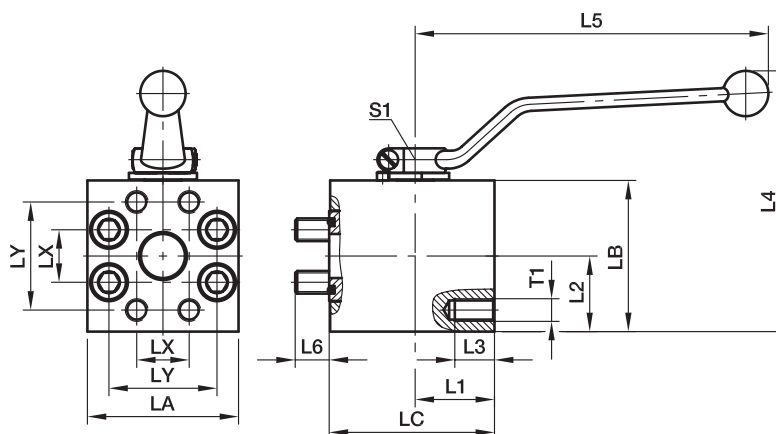
**L-Version**

\*Standard surface: bronzed  
For Cr(VI)-free please add CF  
Example: **KH3/2-1/8CFX**

Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional suffix needed)
Steel	DIN 50938-FE//A/T4	KH3/2-1/8X	POM / NBR

## 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 (metr.)	O-ring	Weight (steel) kg/piece	Order code*	PN (bar) <sup>1)</sup> S
SAE (in)	ISO (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 8×65	18.66×3.53	1.29	<b>KH12B1V62</b>	420
3/4	20	31.0	35.0	16	134	187	14.0	23.8	50.8	70	70	62.5	14	M10	M10×65	25.00×3.53	2.15	<b>KH20B1V63</b>	420
1	25	39.0	40.0	21	144	187	18.0	27.8	57.2	80	80	75.5	14	M12	M12×80	32.92×3.53	2.95	<b>KH25B1V64</b>	420
1 1/4	32	43.5	50.0	23	129	320	18.0	31.8	66.7	100	100	82.0	17	M14	M12×85	37.70×3.53	6.21	<b>KH32B1V65</b>	420
1 1/2	40	53.5	60.0	26	149	320	18.0	36.5	79.4	120	120	99.0	17	M16	M16×100	47.22×3.53	9.50	<b>KH40B1V66</b>	420
2	50	61.0	61.5	34	153	320	22.0	44.5	96.8	134	124	109.5	17	M20	M20×100	56.74×3.53	12.80	<b>KH50B1V68</b>	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).

Standard surface: bronzed  
For Cr(VI)-free please add CF  
Example: **KH12B1V62CFX**

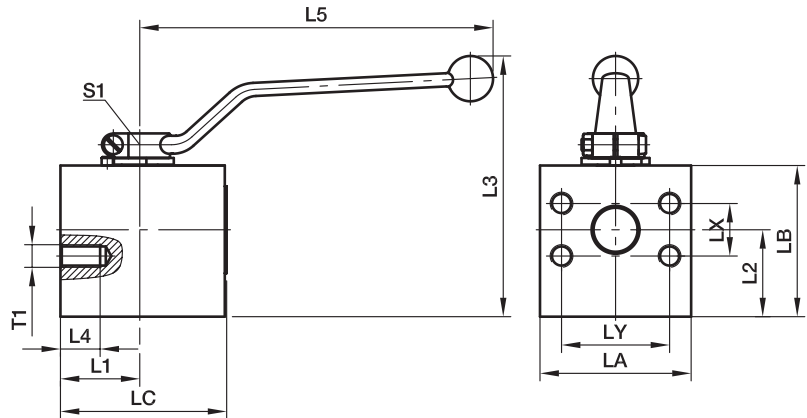
#### Applications:

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

**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 (steel) kg/piece	Order code*	PN (bar) <sup>1)</sup> S
SAE (in)	ISO (DN)	(metr.)	(in)														
1/2	12	<b>M 8</b>	<b>5/16-18UNC</b>	23.5	22	97	17	112	17.5	38.1	55	45	60	10	1.1	<b>KH12B2V32</b>	210
3/4	20	<b>M10</b>	<b>3/8-16UNC</b>	39.5	39	128	21	187	22.2	47.6	70	70	80	14	2.8	<b>KH20B2V33</b>	210
1	25	<b>M10</b>	<b>3/8-16UNC</b>	42.0	46	138	19	187	26.2	52.4	80	80	88	14	4.0	<b>KH25B2V34</b>	210

**6000 PSI Series**

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

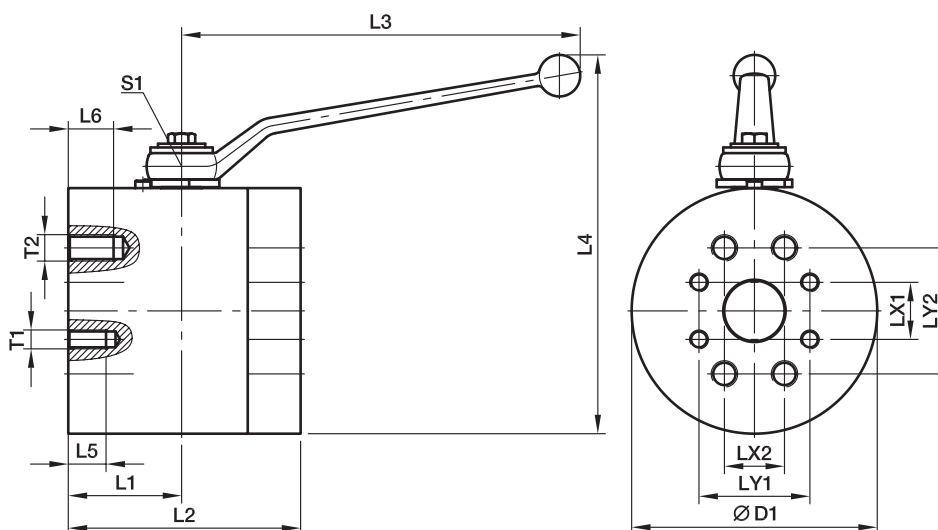
**Temperature range:**

-10 up to +100° C

 Standard surface: bronzed  
 For Cr(VI)-free please add CF  
 Example: **KH12B2V32CFX**

## 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									3000 PSI Connection					6000 PSI Connection					Weight (steel) kg/piece	Order code*	PN (bar) <sup>1)</sup>	
SAE (in)	ISO (DN)	D1	L1	L2	L3	L4	S1	T1	UNC	LX1	LY1	L5	PN	T2	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).

Standard surface: bronzed  
For Cr(VI)-free please add CF  
Example: **KH32B3V35CFX**

#### Applications:

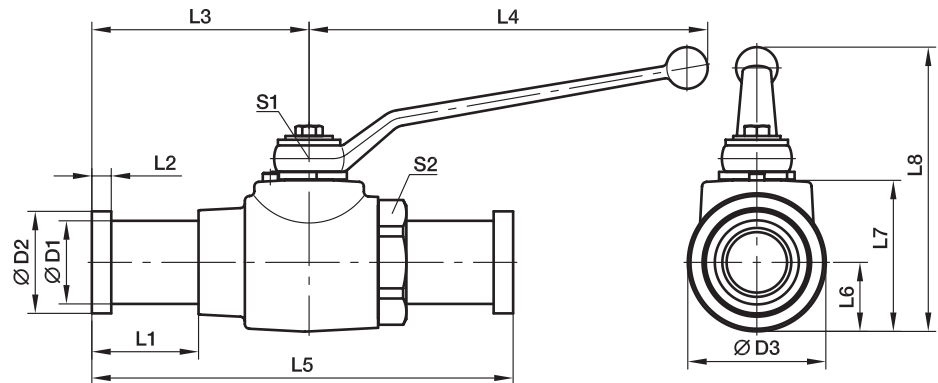
Suitable for petroleum-based hydraulic fluid, lubricants and fuel oil. For air applications suitable up to 100 bar.

#### Temperature range:

-10 up to +100° C

## 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) kg/piece	Order code*	PN (bar) <sup>1)</sup> 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	14.5	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).

Standard surface: bronzed  
For Cr(VI)-free please add CF  
Example: **KH12A32CFX**

#### Applications:

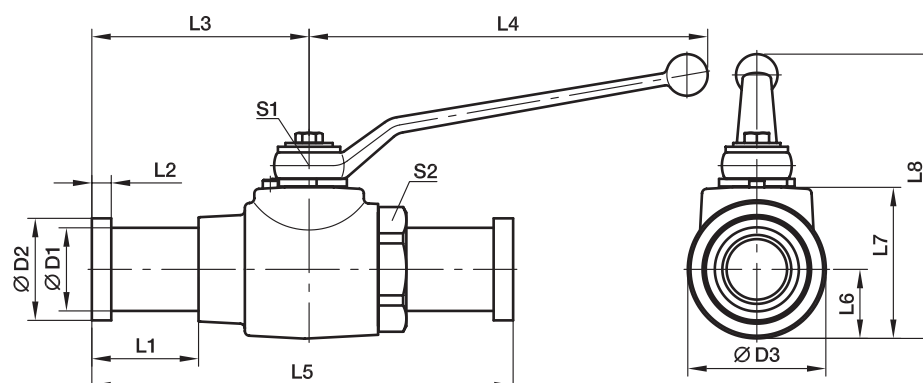
Suitable for petroleum-based hydraulic fluid, lubricants and fuel oil.  
For air applications suitable up to 100 bar.

#### Temperature range:

-10 up to +100° C

## 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 (bar) S
SAE (in)	ISO (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)

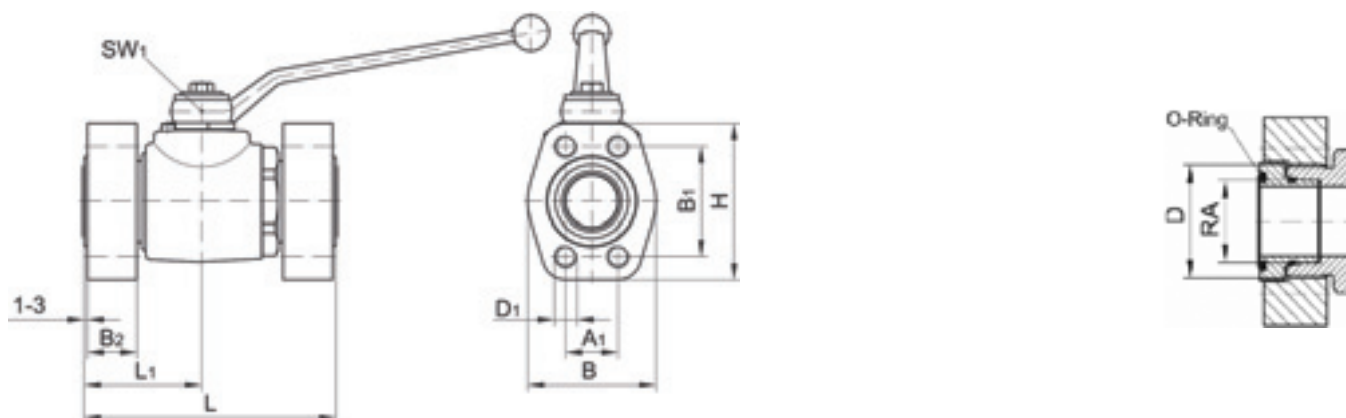
Body: Stainless steel  
 Switching ball: Stainless steel  
 Control shaft: Stainless steel  
 Switching ball sealing: POM  
 Control shaft sealing: FKM

Order code suffixes		
Material	Suffix 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 ISO 6162-1	12*	M24×1.5	16	M 8	17.5	38.1	20	103	51.5	46	54	18.64×3.53	1.2	<b>KH12B4V3M</b>	350
	20*	M36×2	25	M10	22.3	47.6	20	125	62.5	52	65	24.99×3.53	2.0	<b>KH20B4V3M</b>	350
	25*	M42×2	30	M10	26.2	52.4	21	138	69.0	59	70	32.92×3.53	2.7	<b>KH25B4V3M</b>	315
	32	M52×2	38	M10	30.2	58.7	24	153	71.5	73	79	37.69×3.53	3.8	<b>KH32B4V3M</b>	250
	40/32	M52×2	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 tube fittings DIN 2353 heavy series ISO 8434-1	12*	M24×1.5	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*	M36×2	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*	M42×2	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	M52×2	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	M52×2	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 ISO 6162-2	12*	M24 ×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*	M36×2	25	M10	23.8	50.8	22	125	62.5	60	71	24.99×3.53	2.8	<b>KH20B4V6M</b>	400
	25*	M42×2	30	M12	27.8	57.2	24	138	69.0	70	81	32.92×3.53	3.1	<b>KH25B4V6M</b>	400
	32	M52×2	38	M12	31.8	66.6	30	153	71.5	78	95	37.69×3.53	4.3	<b>KH32B4V6M</b>	400
	40/32	M52×2	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 tube fittings DIN 2353 heavy series ISO 8434-1	12*	M24×1.5	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*	M36×2	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*	M42×2	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	M52×2	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	M52×2	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

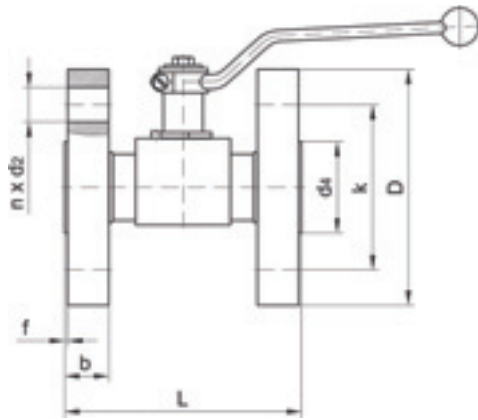
Standard surface: bronzed

For Cr(VI)-free please add CF

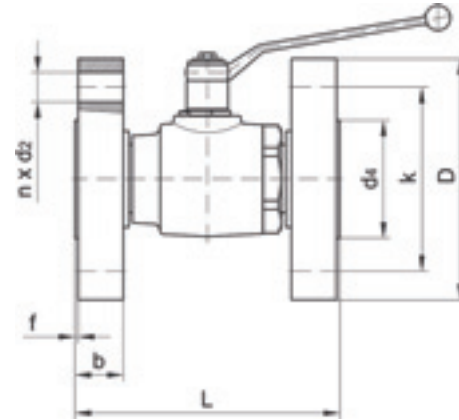
Example: **KH12B4V3MCFX**

## 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 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
PN 100	40	170	26	125	88	3	4	22	200	12.6	KH40B5V63
	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
PN 160	25	140	24	100	68	2	4	18	160	7.6	KH25B5V100
	40	170	28	125	88	3	4	22	200	12.6	KH40B5V100
	50	195	30	145	102	3	4	26	230	17.9	KH50B5V100
	10	100	20	70	40	2	4	14	130	2.9	KH10B5V160
PN 250	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
	50	195	30	145	102	3	4	26	230	18.7	KH50B5V160
PN 320	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
	50	200	38	150	102	3	8	26	230	22.6	KH50B5V250
PN 400	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
	50	210	42	160	102	3	8	26	230	26.4	KH50B5V320
PN 400	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
	50	235	52	180	102	3	8	30	300	38.9	KH50B5V400

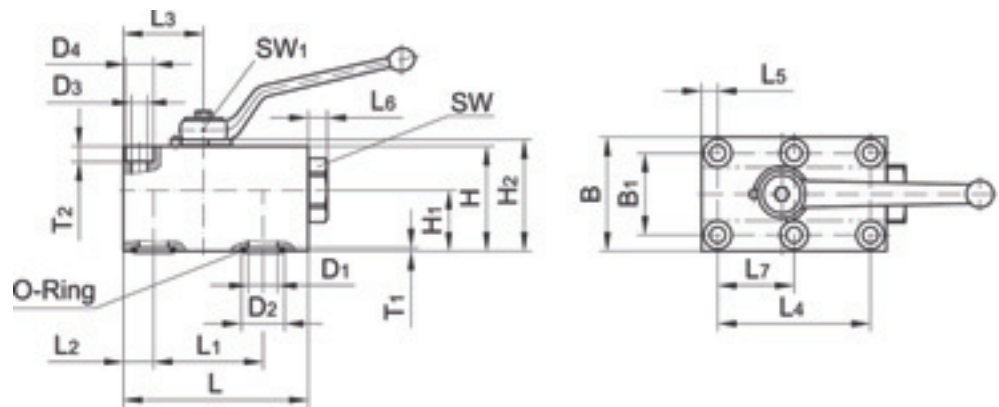
flange connection dimensions: DIN EN 1092-1 (DIN 2501-1)  
 sizes PN 25 – PN 320: DIN EN 558-1 series 1 (DIN 3202-1-F1)  
 sizes PN 400: DIN EN 558-1 series 2 (DIN 3202-1-F2)  
 special types on request

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

Standard surface: bronzed. For Cr(VI)-free please add CF. Example: **KH10B5V40CFX**

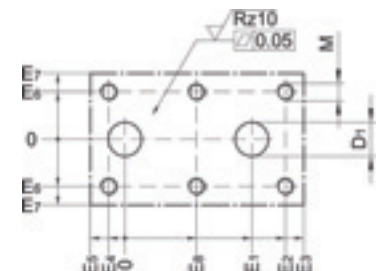
## KHBLOCK 2/2-way ball valves for block structure

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 DIN ISO 2768 Surfaces DIN EN ISO 4287	6	6.0	35	35.0	50.5	–	8.5	13.5	20.0	17.5	M 6	7.5×2.5
	10	9.5	44	52.5	63.0	2.5	10.0	20.0	27.5	25.0	M 8	10.5×2.5
	12	15.5	58	74.5	82.0	8.5	16.0	22.5	30.0	33.0	M 8	20.5×2.5
	20	20.0	69	87.0	97.0	10.0	20.0	25.5	35.0	38.5	M10	23.5×3.5
	25	24.0	81	101.0	114.0	14.0	24.0	30.0	40.0	43.5	M10	28.5×3.5
	32	32.0	96	119.0	136.0	17.0	29.0	39.0	50.0	51.0	M12	33.5×3.5
	40	38.0	112	112.0	146.5	–	28.5	47.5	65.0	56.0	M16	42.0×3.5
50	48.0	136	136.0	177.0	–	38.0	56.0	75.0	68.0	M20	49.0×3.5	



Drilling template

Body:	Steel	Steel
Switching ball:	Steel/chromiumplated	Steel/chromiumplated
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

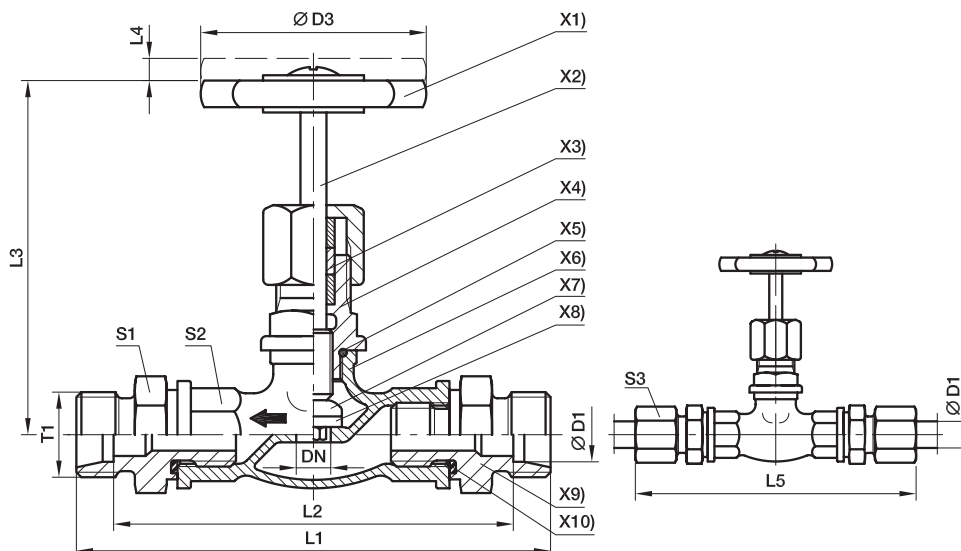
EO tube end ← male BSPP

### 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) **Hand 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:** Eolastic-sealing NBR (e.g. Perbunan)

Series	D1	T1	DN	D3	L1	L2	L3	L4	L5	S1	S2	S3	Weight g/1 piece	Order code*	PN (bar) <sup>1)</sup> without 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	20	60	123	108	67	8	140	32	32	36	670	<b>DV22LX</b>	10
	28	M 36×2	25	60	140	125	95	10	158	41	38	41	1030	<b>DV28LX</b>	10
	35	M 45×2	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

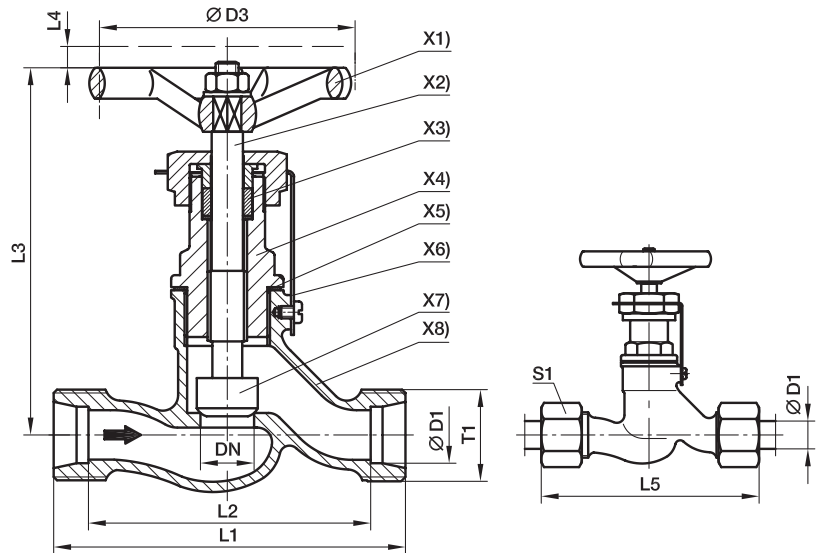
(with internal threaded spindle)

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) **Hand wheel:** Plastic material typ 74 according to DIN 388 Form C
- X2) **Spindle:** with internal thread. Material: Cu Zn 35 Ni 2
- X3) **Stuffing box packing:** Graphite
- X4) **Head piece:** material: Cu Zn 39 Pb 3
- X5) **Sealing:** Copper ring
- X6) **Locking plates:** material: St. 37/zinc plated
- X7) **Valve cone:** loose tip material: Cu Zn 35 Ni 2
- X8) **Casing:** 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 	T1	DN	D3	L1	L2	L3	L4	L5	S1	Weight g/1 piece	Order code*	PN (bar) <sup>1)</sup> without surface
S <sup>4)</sup>	10	M18×1.5	6	63	60	45	98	7	77	22	383	<b>LD10SX</b>	40
	12	M20×1.5	8	63	64	49	98	7	81	24	401	<b>LD12SX</b>	40
	14	M22×1.5	10	63	70	54	98	7	89	27	417	<b>LD14SX</b>	40
	16	M24×1.5	12	80	84	67	110	9	103	30	631	<b>LD16SX</b>	40
	20	M30×2	16	80	90	69	110	9	112	36	688	<b>LD20SX</b>	40
	25	M36×2	20	100	110	86	129	12	134	46	1191	<b>LD25SX</b>	40
	30	M42×2	25	100	120	93	129	12	146	50	1322	<b>LD30SX</b>	40
	38	M52×2	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 17.**

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

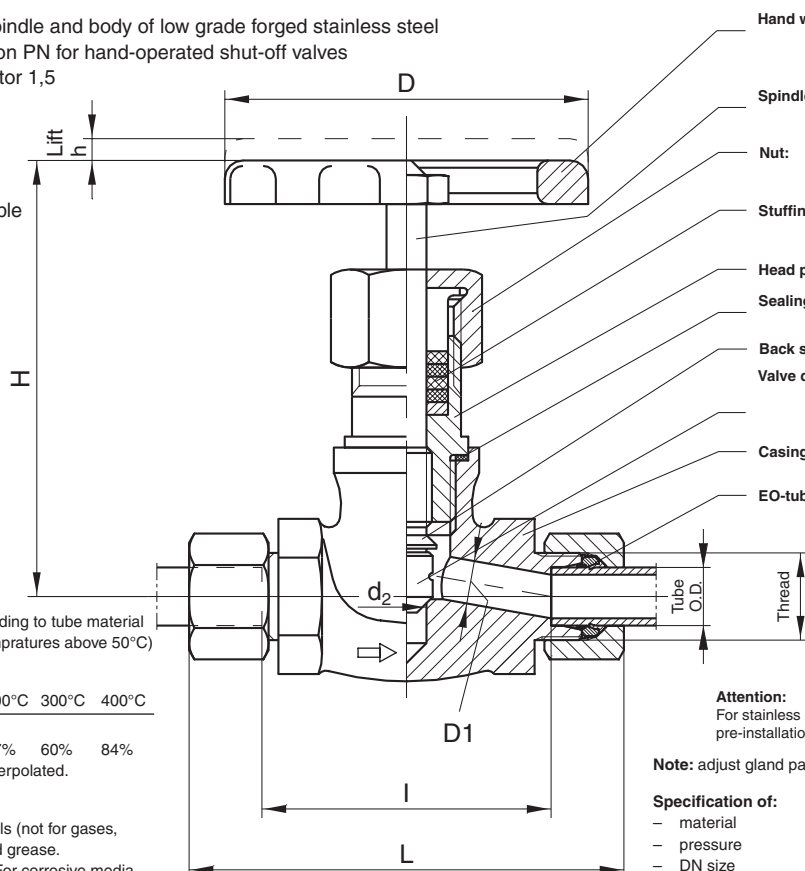
Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional suffix needed)
Gunmetal (Rg 5) 2.1096	without	LD10SX	Graphit / Metal

## 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.



- Hand wheel:** Aluminium die casting GD-AL Si 8 Cu 3  
Operating position: completely opened or closed.
- Spindle:** with internal thread. Material 1.4021
- Nut:** Material 1.0718
- Stuffing box packing:** GA 24 (Graphit)
- Head piece:** Material 1.0460
- Sealing:** between casing and head piece, material-no. 2.4066
- Back sealing:** against head piece
- Valve cone:** hardened loose tip material 1.4122. For VDHA 30-PS and 38-PS material 1.0460 forged with Cr 17
- Casing:** forged. Material No. 1.4104
- EO-tube connection:** Nuts and progressive rings of steel for the assembly of steel tubes. For stainless steel tubes material no. 1.4571 or 1.4541 and temperatures above 120°C progressive rings and nuts of 1.4571 are to used. (Please specify when ordering)

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.

**Attention:**  
 For stainless steel tubes always pre-assembly in hardened pre-installation body (see assembly instructions)

**Note:** adjust gland packing prior to initial working period.

- Specification of:**
- material
  - pressure
  - DN size
  - identification mark on hand wheel.

VDHA also available in 15-L, 18-L and 22-L.

Series	D1	PN (bar)	DN	Thread	d2	H	L	I	h	D	Weight gr./1 piece	With Nut and Ring	
												Dry Technology EO-2	PSR steel
S <sup>4)</sup>	06	630	4	M 14×1.5	9.5	120	95	66	6	100	891	VDHA06ZS	VDHA06S
	08	630	5	M 16×1.5	9.5	120	95	66	6	100	917	VDHA08ZS	VDHA08S
	10	630	7	M 18×1.5	9.5	120	97	65	6	100	937	VDHA10ZS	VDHA10S
	12	630	8	M 20×1.5	9.5	120	97	65	6	100	940	VDHA12ZS	VDHA12S
	14	630	10	M 22×1.5	9.5	120	119	84	6	100	1194	VDHA14ZS	VDHA14S
	16	400	11	M 24×1.5	9.5	120	119	83	6	100	1209	VDHA16ZS	VDHA16S
	20	400	13	M 30×2	11.0	120	122	79	6	100	1292	VDHA20ZS	VDHA20S
	25	400	17	M 36×2	12.0	143	154	106	9	125	2013	VDHA25ZS	VDHA25S
	30	250	19	M 42×2	22.5	164	156	103	12	125	2596	VDHA30ZS	VDHA30S
	38	250	25	M 52×2	26.5	198	179	118	12	180	4972	VDHA38ZS	VDHA38S

1) Pressure shown = item deliverable

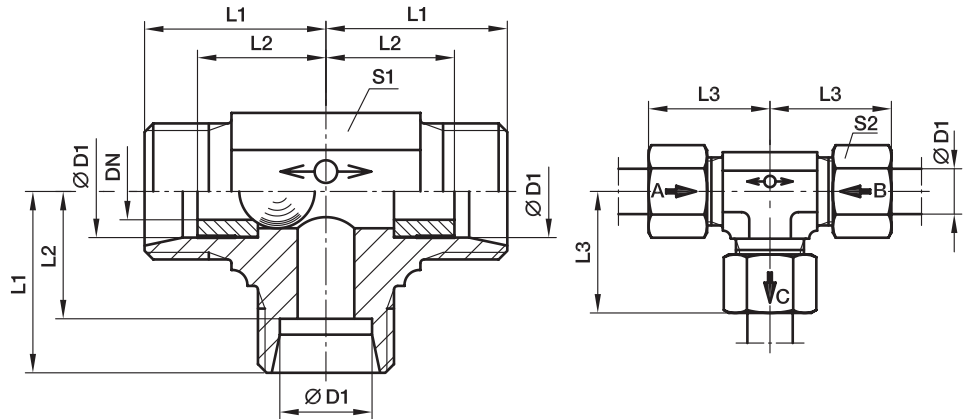
4) S = heavy series

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

## 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 of 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<sub>max</sub>): approx. 20 drops (test period of 1 minute).

Directions of flow:

D<sub>1</sub> → D<sub>3</sub> = D<sub>2</sub> closed  
D<sub>2</sub> → D<sub>3</sub> = D<sub>1</sub> closed

Series	D1	T1	DN	L1	L2	L3	S1	S2	Weight g/1 piece	Order code*	PN (bar) <sup>1)</sup> 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 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	WV08LOMDCF	Steel ball

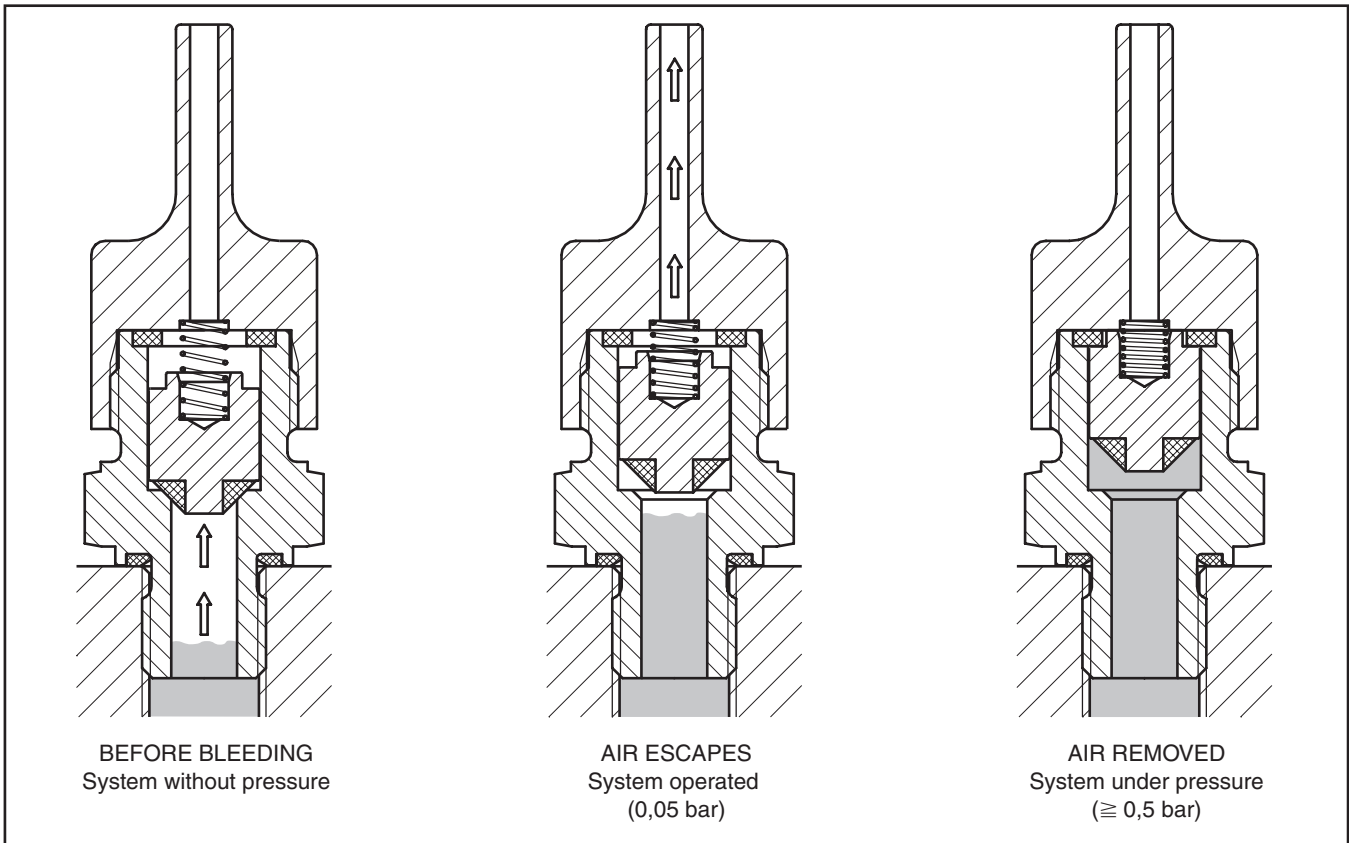


## ELA air-bleed valves

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.

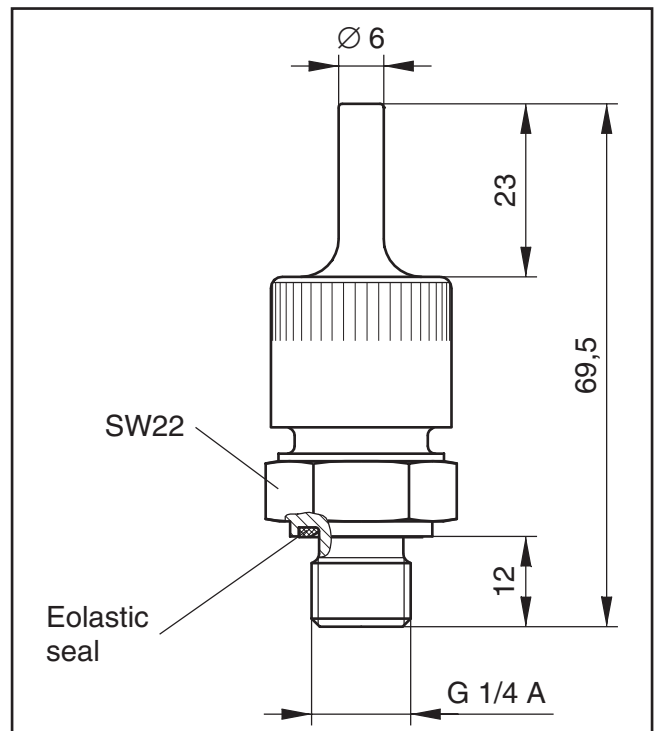
ELA air-bleed valves are available only for mineral oil based fluids, and within the temperature limits of  $-20^{\circ}\text{C}$  to  $+90^{\circ}\text{C}$ .



### ELA Air-bleed valves

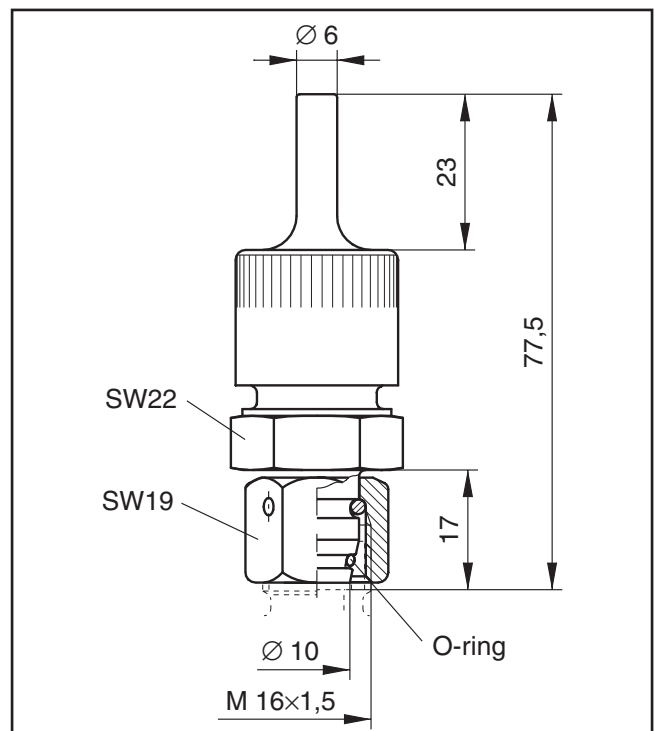
Male BSPP thread with Eolastic seal

PN (bar)	Dry Technology Steel	Weight g/1 piece
400	<b>ELA12/4EDCF</b>	109



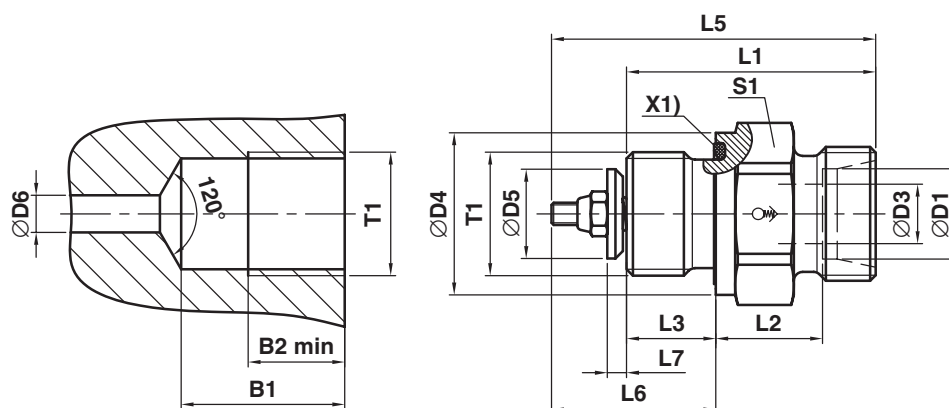
### EO Swivel

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



## LRV line rupture valve

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



D1 	T1	D3	D4	D5	D6	L1	L2	L3	L5	S1	B1	B2	Weight g/1 piece	Order code*	PN (bar)
08	G1/4A	6.0	19	9.8	5	32.0	13.0	12	42	19	24	13	37	LRV08LRED* <sup>1</sup> / <sub>2</sub> OCF	400
12	G3/8A	9.0	22	12.0	8	33.5	14.5	12	44	22	24	13	53	LRV12LRED* <sup>1</sup> / <sub>2</sub> OCF	400
15 <sup>1)</sup>	G3/8A	9.0	22	12.0	8	33.5	14.5	12	44	22	24	13	53	LRV15LRED* <sup>1</sup> / <sub>2</sub> OCF	400
15 <sup>1)</sup>	G1/2A	14.0	27	16.0	12	37.0	15.5	14	51	27	28	15	84	LRV15LRED* <sup>1</sup> / <sub>2</sub> OCF	400
18	G1/2A	14.0	27	16.0	12	37.0	15.5	14	51	27	28	15	84	LRV18LRED* <sup>1</sup> / <sub>2</sub> OCF	400
22	G3/4A	17.5	32	20.0	16	41.0	17.5	16	56	32	32	17	121	LRV22LRED* <sup>1</sup> / <sub>2</sub> OCF	250

O-ring version on request!

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

Order code – supplementary designations			
Material	Identifying letter Version	Example	Standard sealing material (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 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