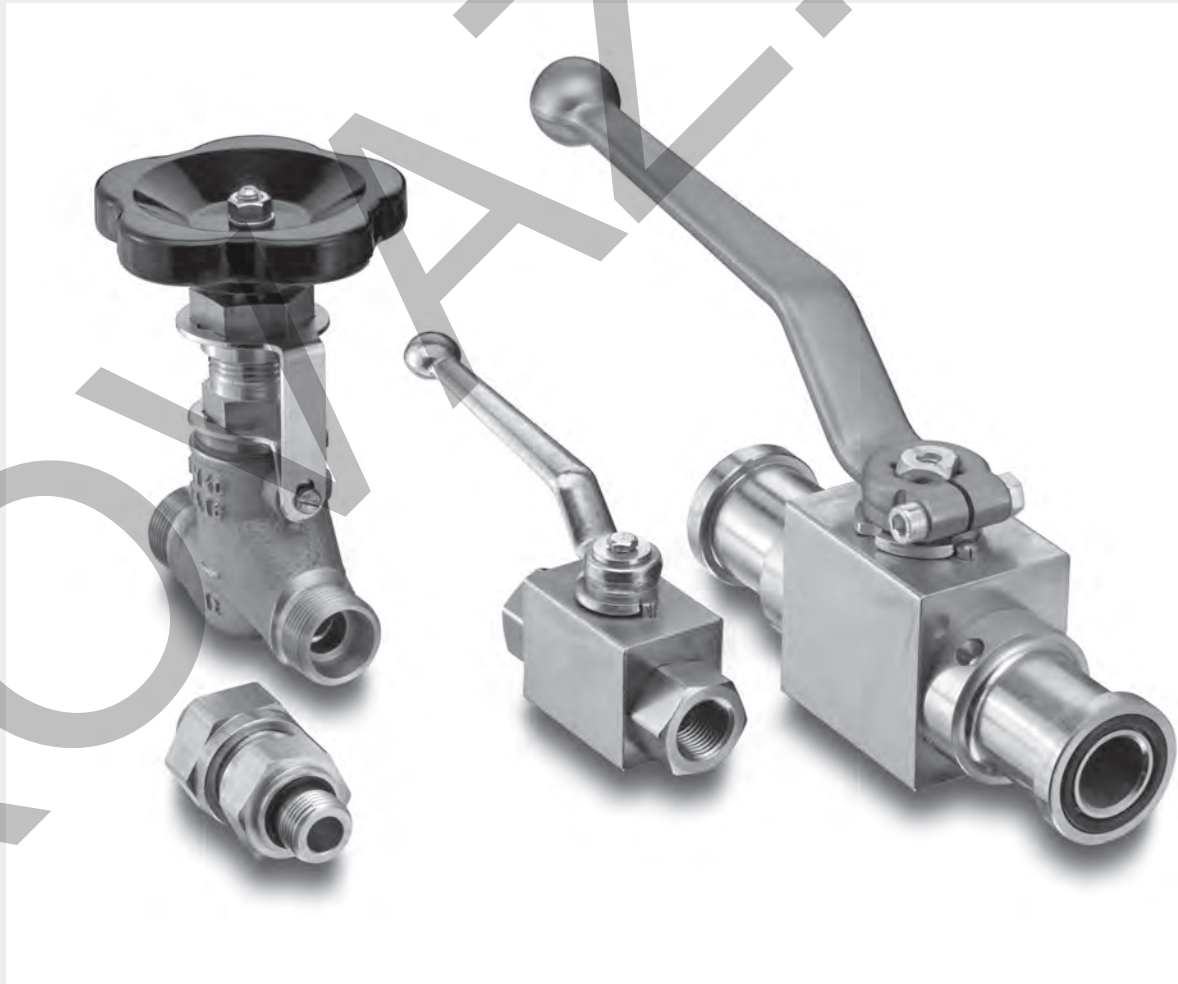


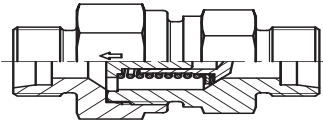


**EO<sup>®</sup> Ermeto Original  
Valves**



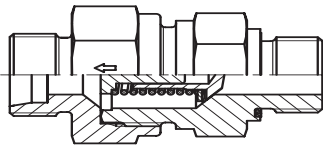
Visual index Non return valves

RHD / p. O13



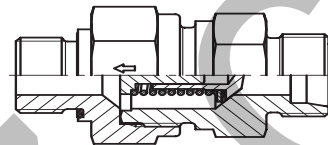
EO 24° cone end / EO 24° cone end

RHV-R-ED / p. O14



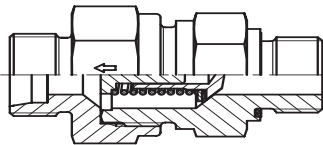
EO 24° cone end / Male BSPP thread – ED-seal (ISO 1179)

RHZ-R-ED / p. O15



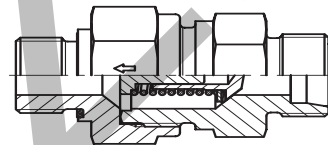
Male BSPP thread – ED-seal (ISO 1179) / EO 24° cone end

RHV-M-ED / p. O16



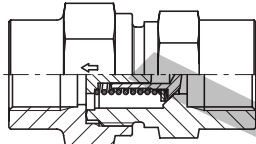
EO 24° cone end / Male metric thread – ED-seal (ISO 9974)

RHZ-M-ED / p. O17



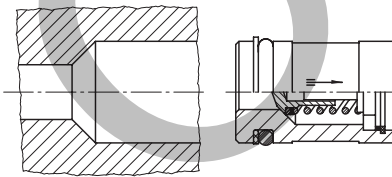
Male metric thread – ED-seal (ISO 9974) / EO 24° cone end

RHDI / p. O18



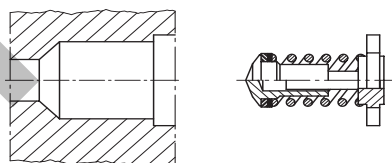
Female BSPP thread (ISO 1179-1) / Female BSPP thread (ISO 1179-1)

RVP / p. O19



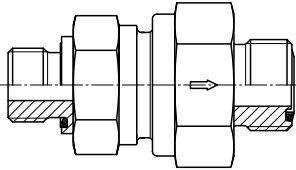
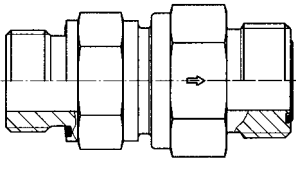
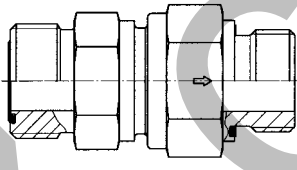
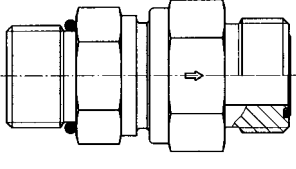
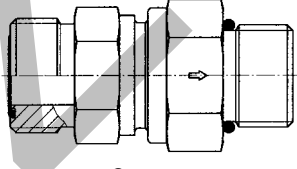
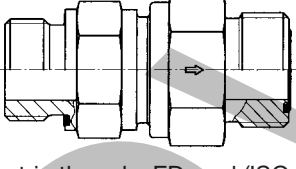
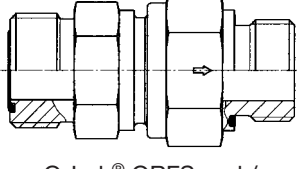
Non return valve cartridge

I-TL / p. O20



Internal parts of non return valve

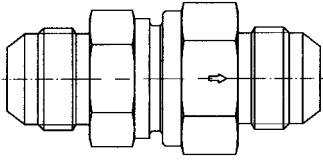
Visual index Non return valves with O-Lok® connections

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



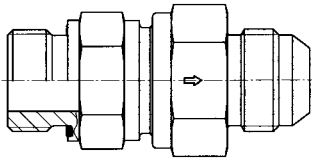
Visual index Non return valves with Triple-Lok® connections

**RHDMTXS** / p. O29



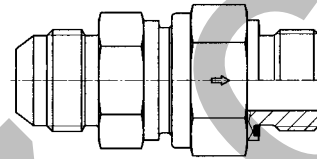
Triple-Lok® 37° flare end /  
Triple-Lok® 37° flare end

**RHV42EDMXS** / p. O30



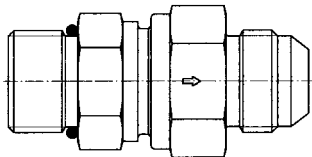
Male BSPP thread – ED-seal (ISO 1179) /  
Triple-Lok® 37° flare end

**RHZ42EDMXS** / p. O31



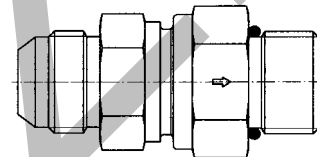
Triple-Lok® 37° flare end /  
Male BSPP thread – ED-seal (ISO 1179)

**RHV50MXS** / p. O32



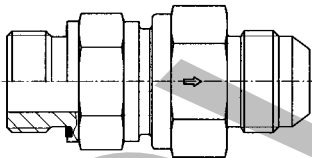
Male UN/UNF thread – O-ring (ISO 11926) /  
Triple-Lok® 37° flare end

**RHZ50MXS** / p. O33



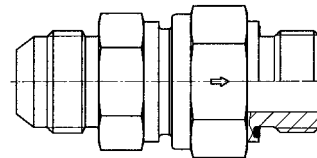
Triple-Lok® 37° flare end /  
Male UN/UNF thread – O-ring (ISO 11926)

**RHV82EDMXS** / p. OP34



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

**RHZ82EDMXS** / p. O35



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

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

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

- with tube connection both ends: RHD
- with tube connection to male stud: RHV/RHZ
- with female thread both ends: RHD1
- valve cartridges: RVP
- valve internal parts: I-TL
- leakage rate hydraulic testing under test pressure: 1 drop per minute

### Alternating valves:

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

### Shut-off valves:

- for high pressure ratings up to PN 630 bar VDHA

### Design:

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

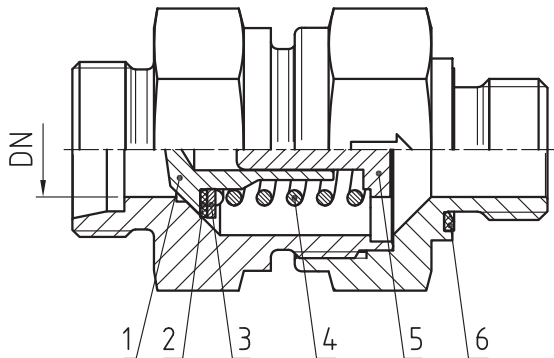
### Caution!

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

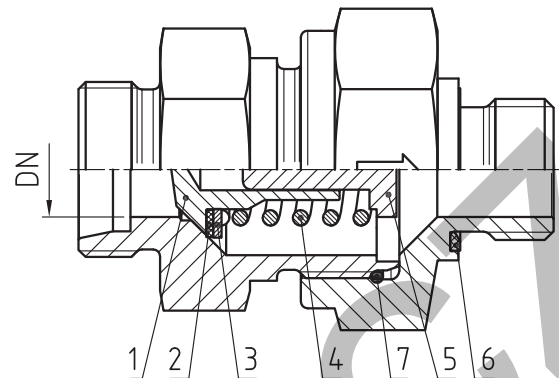
### Notes:

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.

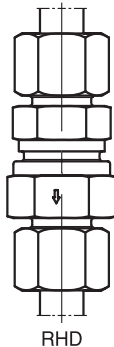
## RHD/V/Z non return valve



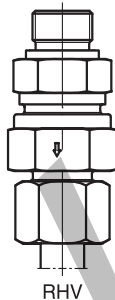
Design with sealing edge:  
Size 06L and 08L / 06S and 08S  
and all sizes in stainless steel with a PTFDE sealing disc.



Design with O-ring (item. 7):  
Sizes 10L, 12L, 15L, 18L, 22L, 28L, 35L and 42L  
as well as 10S, 12S, 14S, 16S, 20S, 25S, 30S and 38S with a  
sealing disc out of NBR (steel) or FKM (stainless steel).



RHD



RHV



RHZ

- 1: poppet
  - 2: sealing disc
  - 3: cover disc
  - 4: spring
  - 5: passage disc
  - 6: Eolastic-sealing
  - 7: O-ring
- 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. Sealing of male stud thread by Eolastic soft seal with types RHV and RHZ.

### Opening pressure:

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

### Material:

- Steel, 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:

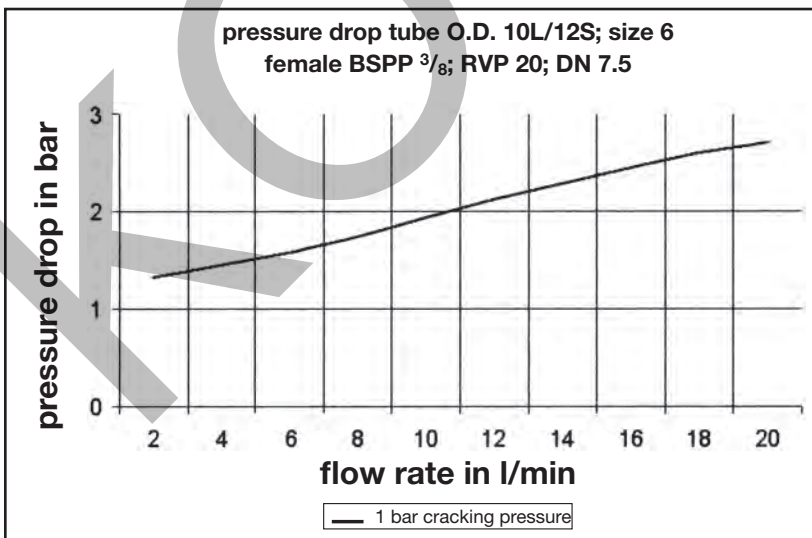
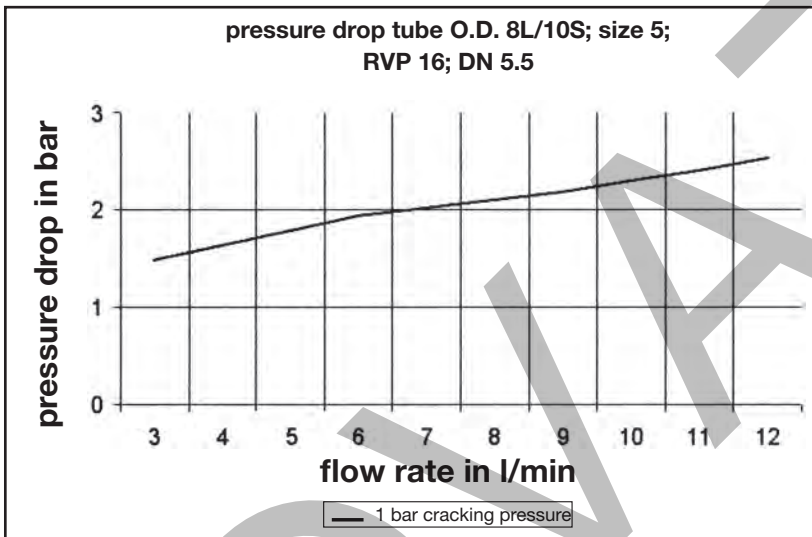
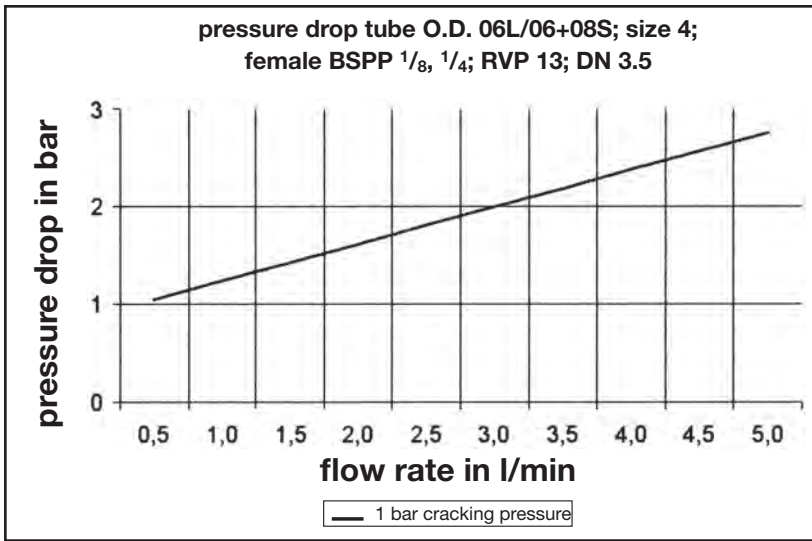
See assembly instructions for EO/EO 2 connections. Non-return valves are all packaged against contamination.

### Media:

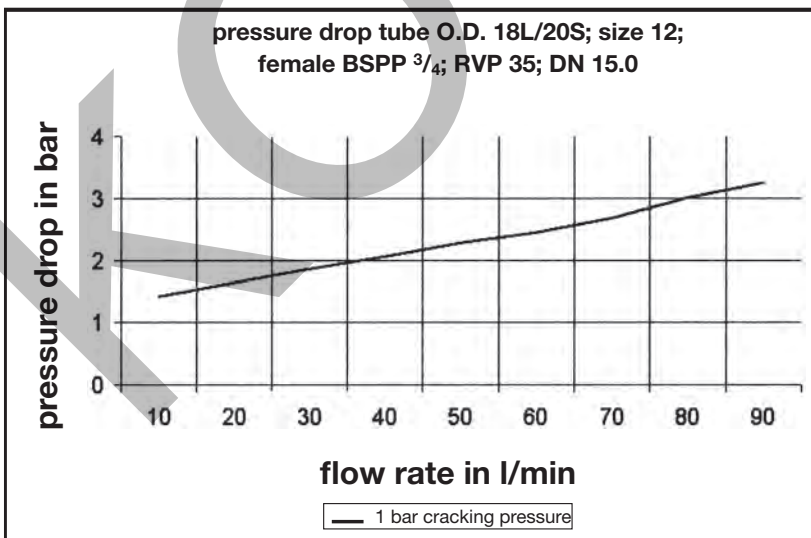
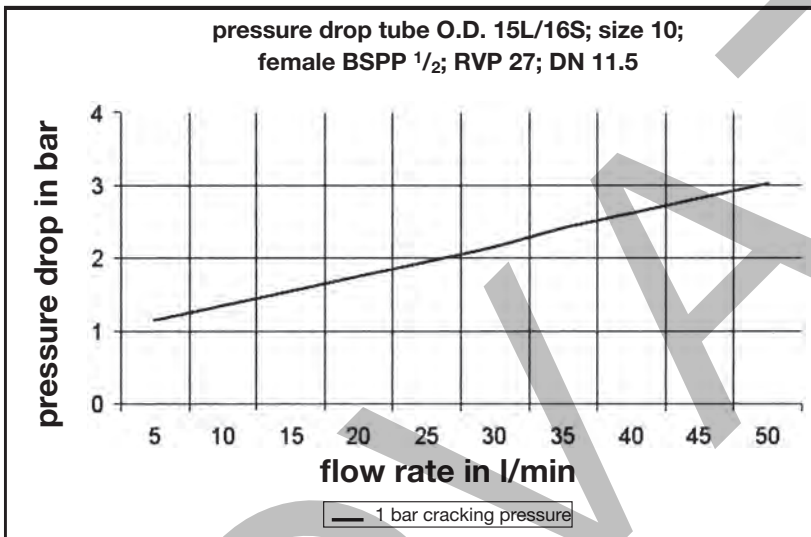
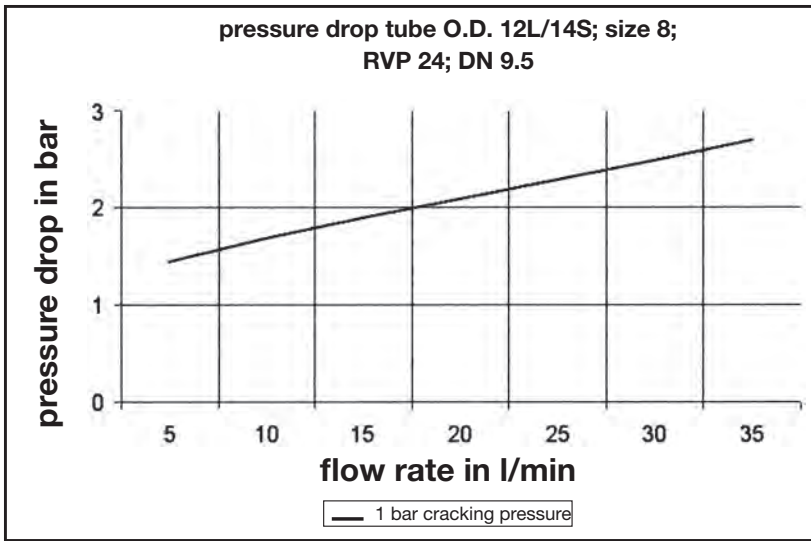
Hydraulic oil, low flammability hydraulic fluids (except for types HFC: for HFD types; FKM seals are necessary). Not suitable for steam, combustible/explosive gases, or oxygen.

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.

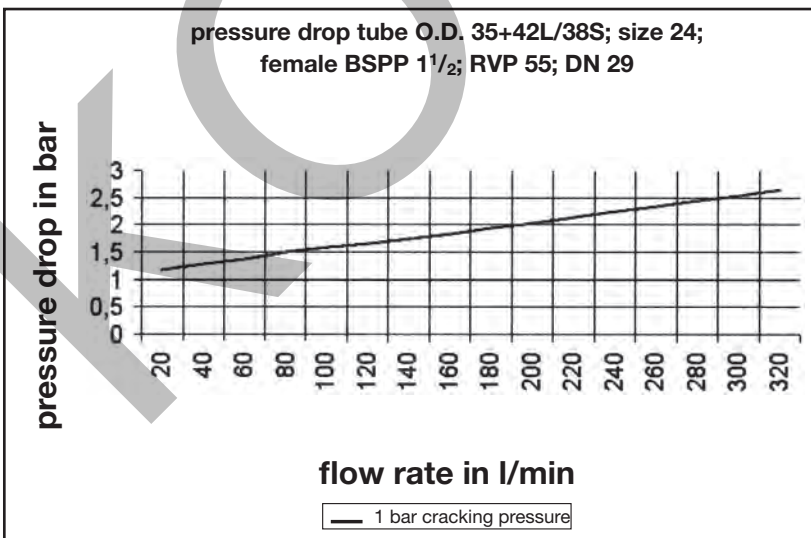
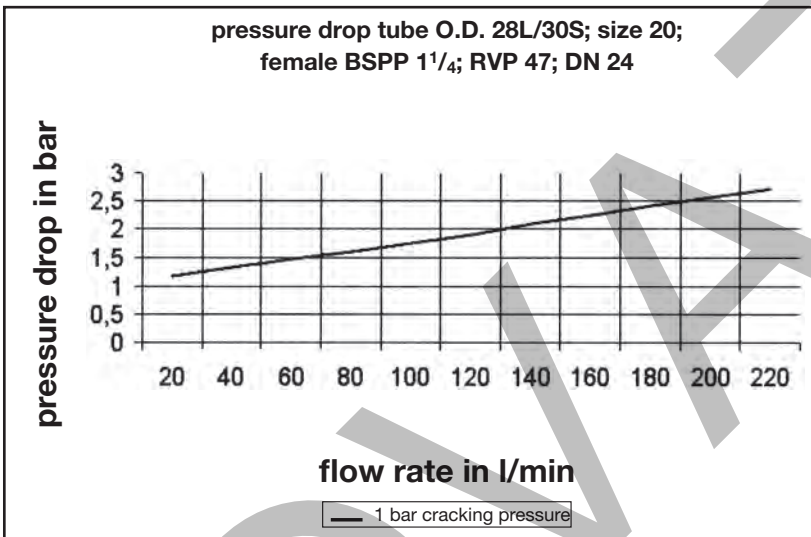
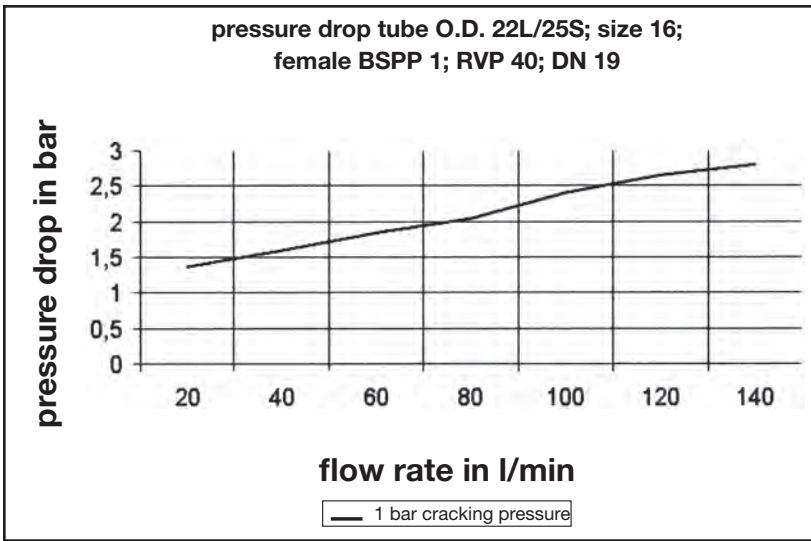


In all diagrams is the peak value of the flow rate in l/min. relating to the maximum permissible flow velocity of 8 m/sec.



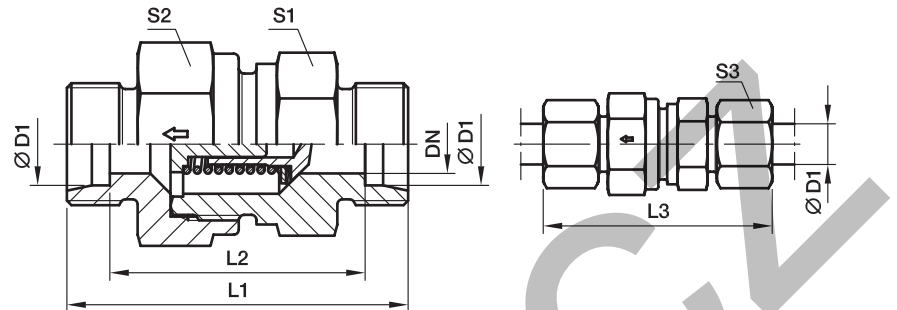


In all diagrams is the peak value of the flow rate in l/min. relating to the maximum permissible flow velocity of 8 m/sec.



## RHD Non return valve

EO 24° cone end / EO 24° cone end



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

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

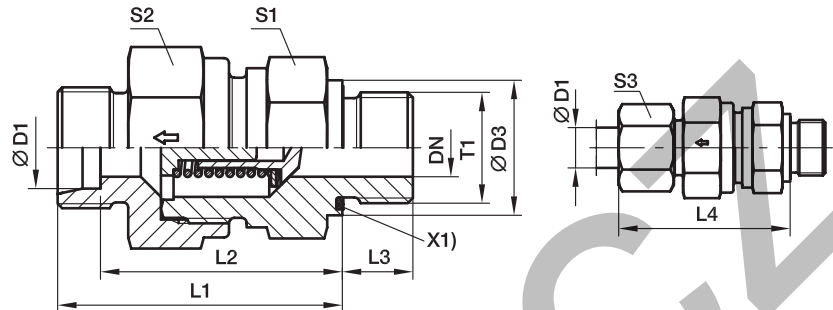
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional suffix needed)
Steel	CF	RHD06LOMDCF	NBR
Stainless steel	71	RHD06LOMD71	VIT

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

## 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	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	28.0	8	42.5	17	17	17	14	47	RHV06LREDOMD	400	250
	08	G 1/4 A	5.5	5.5	19	37.0	30.0	12	44.5	19	19	19	17	62	RHV08LREDOMD	400	250
	10	G 1/4 A	7.5	7.5	19	46.0	38.5	12	53.0	22	24	24	19	105	RHV10LREDOMD	400	250
	12	G 3/8 A	9.5	9.5	22	50.0	42.5	12	57.0	27	30	30	22	175	RHV12LREDOMD	400	250
	15	G 1/2 A	11.0	11.5	27	53.0	45.5	14	60.5	27	32	32	27	205	RHV15LREDOMD	400	250
	18	G 1/2 A	14.0	14.0	27	58.0	50.0	14	66.0	36	41	36	32	294	RHV18LREDOMD	400	160
	22	G 3/4 A	18.0	18.0	32	63.0	55.0	16	71.0	41	46	46	36	450	RHV22LREDOMD	250	160
	28	G 1 A	23.0	23.0	40	71.0	63.0	18	79.5	50	55	55	41	720	RHV28LREDOMD	250	100
	35	G 1 1/4 A	29.0	29.0	50	80.0	69.0	20	90.5	60	65	65	50	1050	RHV35LREDOMD	250	100
	42	G 1 1/2 A	29.0	29.0	55	80.0	68.5	22	91.0	65	70	70	60	1560	RHV42LREDOMD	250	100
S <sup>4)</sup>	06	G 1/4 A	3.5	3.5	19	38.5	31.5	12	46.0	19	19	19	17	73	RHV06SREDOMD	420	400
	08	G 1/4 A	3.5	3.5	19	38.5	31.5	12	46.0	19	19	19	19	79	RHV08SREDOMD	420	400
	10	G 3/8 A	5.5	5.5	22	45.5	38.0	12	54.0	22	24	24	22	132	RHV10SREDOMD	420	400
	12	G 3/8 A	7.5	7.5	22	48.5	41.0	12	57.0	24	27	27	24	153	RHV12SREDOMD	420	400
	16	G 1/2 A	11.0	11.5	27	57.0	48.0	14	66.0	32	36	36	30	293	RHV16SREDOMD	420	315
	20	G 3/4 A	15.0	15.0	32	63.0	52.0	16	73.5	41	50	46	36	511	RHV20SREDOMD	420	250
	25	G 1 A	19.0	19.0	40	67.0	54.5	18	78.5	46	55	50	46	648	RHV25SREDOMD	420	250
	30	G 1 1/4 A	24.0	24.0	50	78.0	64.0	20	90.5	60	60	60	50	1176	RHV30SREDOMD	250	250
38	G 1 1/2 A	29.0	29.0	55	86.0	69.5	22	100.0	65	70	70	60	1624	RHV38SREDOMD	250	250	

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

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

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

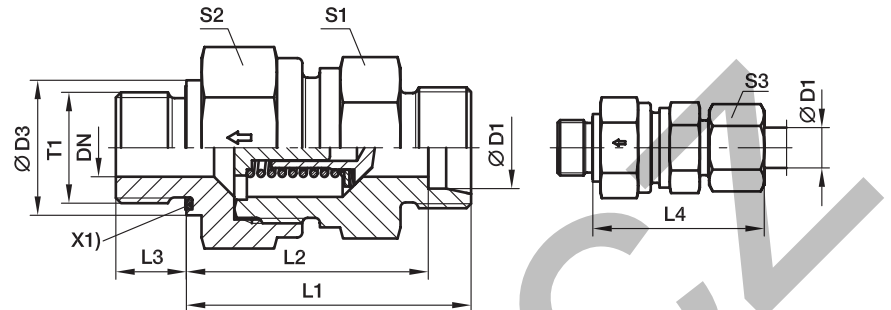
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

\*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	CF	RHV06LREDOMDCF	NBR
Stainless steel	71	RHV06LREDOMD71	VIT

## RHZ-R-ED Non return valve

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



X1) Eolastic sealing

Series	D1	T1	CF DN	71 DN	D3	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	65	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
	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	46	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	60	60	60	50	1180	RHZ30SREDOMD	250	250
38	G 1 1/2 A	29.0	29.0	55	88.0	71.5	22	102.0	65	70	70	60	1670	RHZ38SREDOMD	250	250	

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

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

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

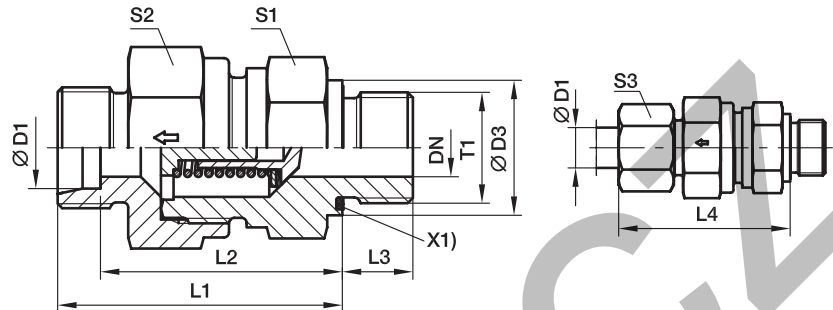
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional suffix needed)
Steel	CF	RHZ06LREDOMDCF	NBR
Stainless steel	71	RHZ06LREDOMD71	VIT

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

## 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	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 10×1.0	3.5	3.5	14	35.0	28.0	8	42.5	17	17	17	14	46	RHV06LMEDOMD	400	250
	08	M 12×1.5	5.5	5.5	17	37.0	29.5	12	43.5	19	19	19	17	58	RHV08LMEDOMD	400	250
	10	M 14×1.5	7.5	7.5	19	46.0	38.5	12	53.0	22	24	44	19	108	RHV10LMEDOMD	400	250
	12	M 16×1.5	9.5	9.5	22	50.0	42.5	12	57.0	27	30	30	22	173	RHV12LMEDOMD	400	250
	15	M 18×1.5	11.0	11.5	24	53.0	45.5	12	60.5	27	32	32	27	192	RHV15LMEDOMD	400	250
	18	M 22×1.5	14.0	14.0	27	58.0	50.0	14	66.0	36	41	36	32	298	RHV18LMEDOMD	400	160
	22	M 26×1.5	18.0	18.0	32	63.0	55.0	16	71.0	41	46	46	36	446	RHV22LMEDOMD	250	160
	28	M 33×2.0	23.0	23.0	40	71.0	63.0	18	79.5	50	55	55	41	722	RHV28LMEDOMD	250	100
	35	M 42×2.0	29.0	29.0	50	80.0	69.0	20	90.5	60	65	65	50	1053	RHV35LMEDOMD	250	100
	42	M 48×2.0	29.0	29.0	55	80.0	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
	16	M 22×1.5	11.0	11.5	27	57.0	48.0	14	66.0	32	36	36	30	296	RHV16SMEDOMD	420	315
	20	M 27×2.0	15.0	15.0	32	63.0	52.0	16	73.5	41	50	46	36	521	RHV20SMEDOMD	420	250
	25	M 33×2.0	19.0	19.0	40	67.0	54.5	18	78.5	46	55	50	46	648	RHV25SMEDOMD	420	250
	30	M 42×2.0	24.0	24.0	50	78.0	64.0	20	90.5	60	60	60	50	1178	RHV30SMEDOMD	250	250
	38	M 48×2.0	29.0	29.0	55	86.0	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

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

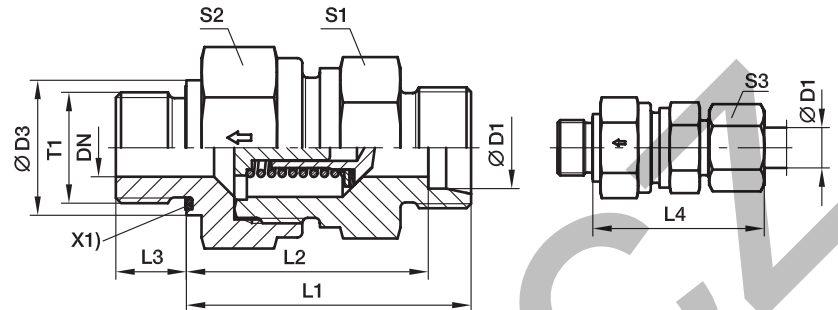
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

\*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	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	CF DN	71 DN	D3	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 10×1.0	3.5	3.5	14	33.5	26.5	8	41.0	17	17	17	14	44	<b>RHZ06LMEDOMD</b>	400	250
	08	M 12×1.5	5.5	5.5	17	35.5	28.5	12	43.0	19	19	19	17	58	<b>RHZ08LMEDOMD</b>	400	250
	10	M 14×1.5	7.5	7.5	19	46.0	38.5	12	53.0	22	24	24	19	104	<b>RHZ10LMEDOMD</b>	400	250
	12	M 16×1.5	9.5	9.5	22	48.0	40.5	12	55.0	27	30	30	22	169	<b>RHZ12LMEDOMD</b>	400	250
	15	M 18×1.5	11.0	11.5	24	50.0	42.5	12	57.5	27	32	32	27	174	<b>RHZ15LMEDOMD</b>	400	250
	18	M 22×1.5	14.0	14.0	27	56.0	48.0	14	64.0	36	41	36	32	279	<b>RHZ18LMEDOMD</b>	400	160
	22	M 26×1.5	18.0	18.0	32	64.0	56.0	16	72.0	41	46	46	36	459	<b>RHZ22LMEDOMD</b>	250	160
	28	M 33×2.0	23.0	23.0	40	72.0	64.0	18	80.5	50	55	55	41	721	<b>RHZ28LMEDOMD</b>	250	100
	35	M 42×2.0	29.0	29.0	50	81.0	70.0	20	91.5	60	65	65	50	1078	<b>RHZ35LMEDOMD</b>	250	100
	42	M 48×2.0	29.0	29.0	55	82.0	70.5	22	93.0	65	70	70	60	1601	<b>RHZ42LMEDOMD</b>	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	<b>RHZ06SMEDOMD</b>	420	400
	08	M 14×1.5	3.5	3.5	19	38.5	31.5	12	46.0	19	19	19	19	75	<b>RHZ08SMEDOMD</b>	420	400
	10	M 16×1.5	5.5	5.5	22	45.5	38.0	12	54.0	22	24	24	22	123	<b>RHZ10SMEDOMD</b>	420	400
	12	M 18×1.5	7.5	7.5	24	48.5	41.0	12	57.0	24	27	27	24	157	<b>RHZ12SMEDOMD</b>	420	400
	16	M 22×1.5	11.0	11.5	27	55.0	46.0	14	64.0	32	36	36	30	279	<b>RHZ16SMEDOMD</b>	420	315
	20	M 27×2.0	15.0	15.0	32	61.0	50.0	16	71.5	41	50	46	36	487	<b>RHZ20SMEDOMD</b>	420	250
	25	M 33×2.0	19.0	19.0	40	67.0	54.5	18	78.5	46	55	50	46	647	<b>RHZ25SMEDOMD</b>	420	250
	30	M 42×2.0	24.0	24.0	50	78.0	64.0	20	90.5	60	60	60	50	1180	<b>RHZ30SMEDOMD</b>	250	250
38	M 48×2.0	29.0	29.0	55	88.0	71.5	22	102.0	65	70	70	60	1669	<b>RHZ38SMEDOMD</b>	250	250	

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

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

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

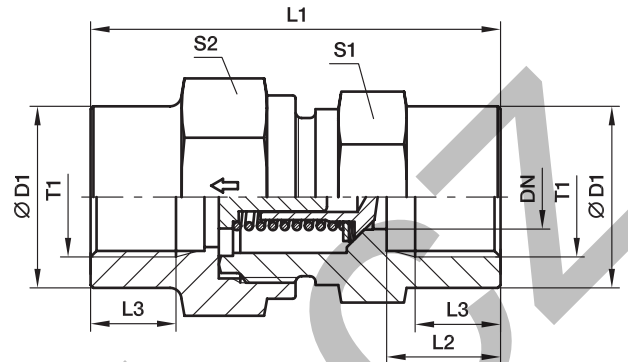
Delivery without nut and ring. Information on ordering complete fittings or alternative sealing materials see page 17.

Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional suffix needed)
Steel	CF	RHZ06LMEDOMDCF	NBR
Stainless steel	71	RHZ06LMEDOMD71	VIT

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

## 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 1/8	3.5	19	42.5	12.0	8.0	19	19	76	<b>RHDI1/8</b>	400	400
	G 1/4	3.5	19	51.0	16.0	12.0	19	19	82	<b>RHDI1/4</b>	400	400
	G 3/8	7.5	24	60.0	17.0	12.0	24	27	157	<b>RHDI3/8</b>	400	400
	G 1/2	11.5	32	72.0	20.0	15.0	32	36	344	<b>RHDI1/2</b>	315	315
	G 3/4	15.0	41	84.0	22.0	16.5	41	46	664	<b>RHDI3/4</b>	250	250
	G 1	19.0	46	95.0	25.5	19.0	46	50	821	<b>RHDI1</b>	250	250
	G 1 1/4	24.0	60	110.0	28.0	21.5	60	60	1581	<b>RHDI11/4</b>	250	250
	G 1 1/2	29.0	65	114.0	28.5	22.0	65	70	1919	<b>RHDI11/2</b>	250	250

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

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

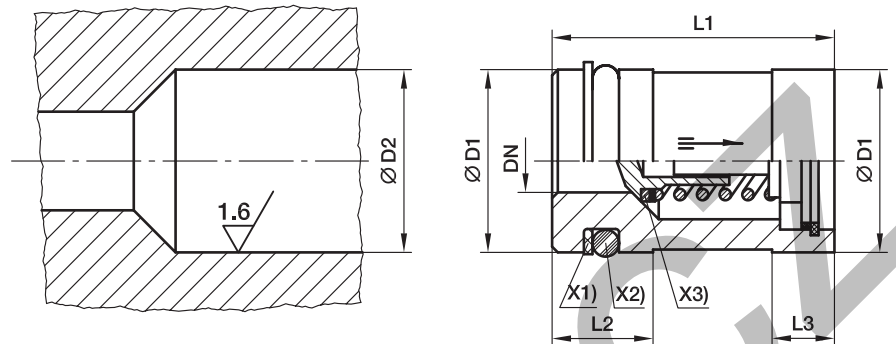
$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

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

Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional suffix needed)
Steel	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	41.0×3	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 +0.01</sup>	70.15	16.0	13.0	44.2×5.7	SRA 55-5.1-1.5	607	<b>RVP55</b>	250	250

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

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

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

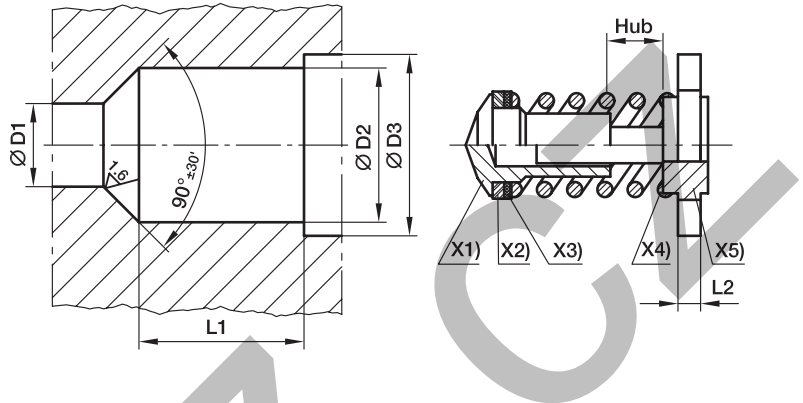
Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional suffix needed)
Steel	CF	RVP13CF	NBR
Stainless steel	71	RVP1371	VIT

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



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	ITL06L/06+08S	*	*
L/S	08/10	5.5	10.2	11.6	11.0	2.0	1.7	4	ITL08L/10S	*	*
L/S	10/12	7.5	13.0	14.1	14.0	2.0	2.3	7	ITL10L/12S	*	*
L/S	12/14	9.5	16.7	18.1	16.5	2.5	2.9	13	ITL12L/14S	*	*
L/S	15/16	11.5	19.5	20.6	19.0	2.5	3.5	18	ITL15L/16S	*	*
L/S	18/20	15.0	25.2	27.1	22.5	3.0	4.4	37	ITL18L/20S	*	*
L/S	22/25	19.0	30.8	32.6	27.0	3.0	5.5	54	ITL22L/25S	*	*
L/S	28/30	24.0	38.6	40.6	32.5	3.5	7.3	107	ITL28L/30S	*	*
L/L/S	35/38/42	29.0	45.7	48.1	37.5	3.5	8.9	144	ITL35+42L/38S	*	*

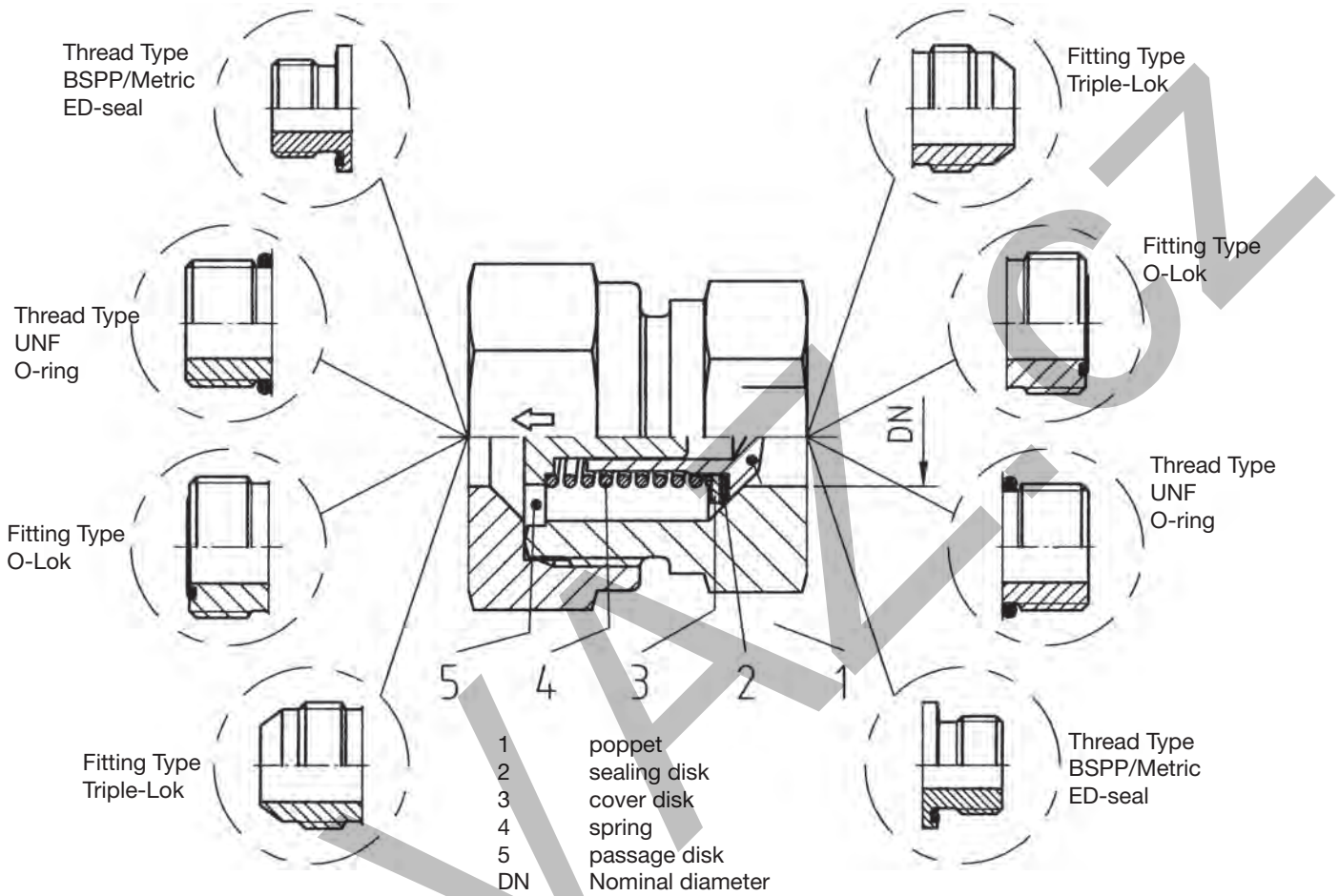
\* = item deliverable

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	CF	ITL06L/06+08S	NBR
Stainless steel	71	ITL06L71/06+08S	VIT

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

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



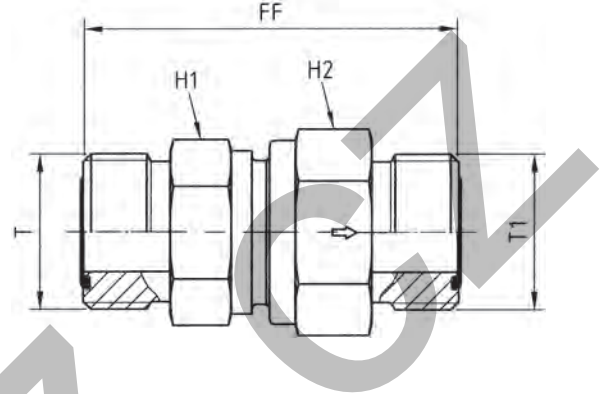
**Material:**

- Steel, 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	9/16-18 UNF	9/16-18 UNF	19	19	44.5	3.5	108	<b>4RHDMLOS</b>	420
8, 10	5/16, 3/8	8, 10	5/16, 3/8	11/16-16 UNF	11/16-16 UNF	22	24	53.5	5.5	188	<b>6RHDMLOS</b>	420
12	1/2	12	1/2	13/16-16 UNF	13/16-16 UNF	24	27	59.5	7.5	223	<b>8RHDMLOS</b>	420
14, 15, 16	5/8	14, 15, 16	5/8	1-14 UNF	1-14 UNF	32	36	70.5	11.5	428	<b>10RHDMLOS</b>	420
18, 20	3/4	18, 20	3/4	1 3/16-12 UNF	1 3/16-12 UNF	41	46	77.5	15.0	731	<b>12RHDMLOS</b>	420
22, 25	1	22, 25	1	1 7/16-12 UNF	1 7/16-12 UNF	46	50	81.5	19.0	1076	<b>16RHDMLOS</b>	420
28, 30, 32	1 1/4	28, 30, 32	1 1/4	1 11/16-12 UNF	1 11/16-12 UNF	60	60	91.5	24.0	1630	<b>20RHDMLOS</b>	250
35, 38	1 1/2	35, 38	1 1/2	2-12 UNF	2-12 UNF	65	70	98.5	29.0	2362	<b>24RHDMLOS</b>	250

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

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

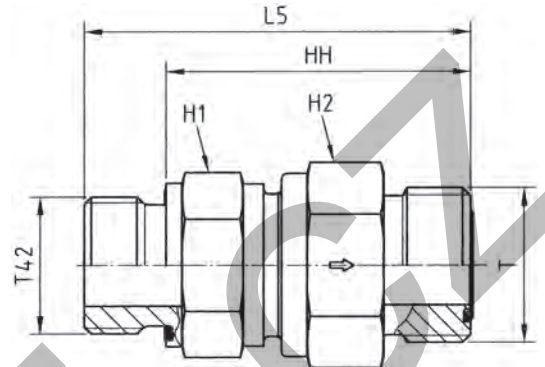
Information on ordering complete fittings or alternative sealing materials see page 17.

Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional suffix needed)
Steel	CF	4RHDMLOSCF	NBR

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

## RHV42EDMLOS Non return valve

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



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

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

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

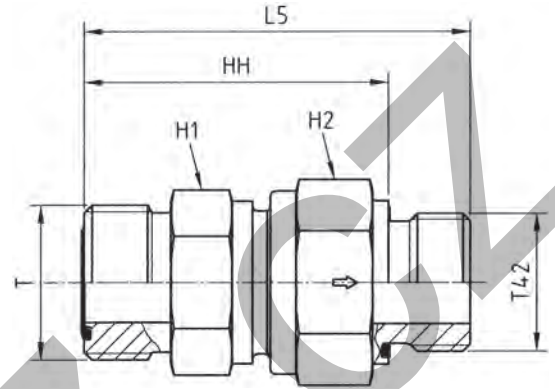
Information on ordering complete fittings or alternative sealing materials see page 17.

Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional suffix needed)
Steel	CF	4RHV42EDMLOSCF	NBR

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

## RHZ42EDMLOS Non return valve

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



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

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

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

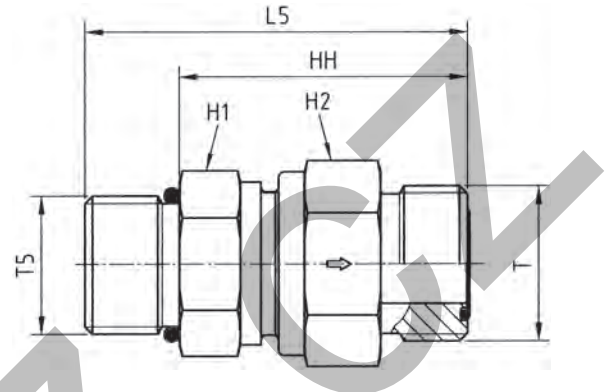
Information on ordering complete fittings or alternative sealing materials see page 17.

Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional suffix needed)
Steel	CF	4RHZ42EDMLOSCF	NBR

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

## RHV50MLOS 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	7/16-20 UNF	9/16-18 UNF	19	19	45.5	34.5	3.5	92	<b>4RHV50MLOS</b>	420
8, 10	5/16, 3/8	9/16-18 UNF	11/16-16 UNF	22	24	54.5	42.5	5.5	165	<b>6RHV50MLOS</b>	420
12	1/2	3/4-16 UNF	13/16-16 UNF	24	27	60.5	46.5	5.5	165	<b>8RHV50MLOS</b>	420
14, 15, 16	5/8	7/8-14 UNF	1-14 UNF	32	36	71.0	55.0	11.5	366	<b>10RHV50MLOS</b>	420
18, 20	3/4	1 1/16-12 UN	1 3/16-12 UNF	41	46	79.0	60.5	15.0	631	<b>12RHV50MLOS</b>	420
22, 25	1	1 5/16-12 UN	1 7/16-12 UNF	46	50	82.5	64.0	19.0	863	<b>16RHV50MLOS</b>	420
28, 30, 32	1 1/4	1 5/8-12 UN	1 11/16-12 UNF	60	60	92.5	74.0	24.0	1403	<b>20RHV50MLOS</b>	250
35, 38	1 1/2	1 7/8-12 UN	2-12 UNF	65	70	99.5	81.0	29.0	1969	<b>24RHV50MLOS</b>	250

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

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

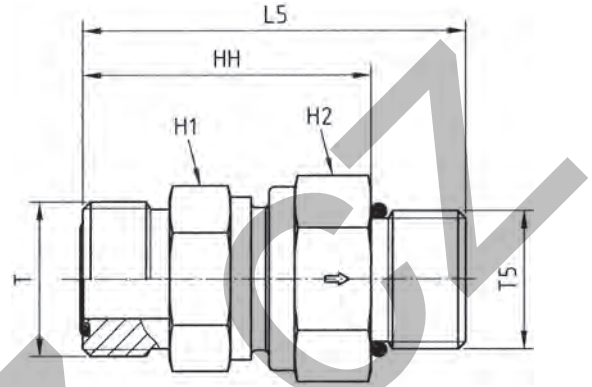
Information on ordering complete fittings or alternative sealing materials see page 17.

Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional suffix needed)
Steel	CF	RHV50MLOSCF	NBR

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

## RHZ50MLOS 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	7/16-20 UNF	9/16-18 UNF	19	19	45.5	34.5	3.5	91	<b>4RHZ50MLOS</b>	420
8, 10	5/16, 3/8	9/16-18 UNF	11/16-16 UNF	22	24	54.5	42.5	5.5	161	<b>6RHZ50MLOS</b>	420
12	1/2	3/4-16 UNF	13/16-16 UNF	24	27	60.5	46.5	5.5	161	<b>8RHZ50MLOS</b>	420
14, 15, 16	5/8	7/8-14 UNF	1-14 UNF	32	36	71.0	55.0	11.5	348	<b>10RHZ50MLOS</b>	420
18, 20	3/4	1 1/16-12 UN	1 3/16-12 UNF	41	46	79.0	60.5	15.0	634	<b>12RHZ50MLOS</b>	420
22, 25	1	1 5/16-12 UN	1 7/16-12 UNF	46	50	82.5	64.0	19.0	863	<b>16RHZ50MLOS</b>	420
28, 30, 32	1 1/4	1 5/8-12 UN	1 11/16-12 UNF	60	60	92.5	74.0	24.0	1397	<b>20RHZ50MLOS</b>	250
35, 38	1 1/2	1 7/8-12 UN	2-12 UNF	65	70	99.5	81.0	29.0	2001	<b>24RHZ50MLOS</b>	250

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

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

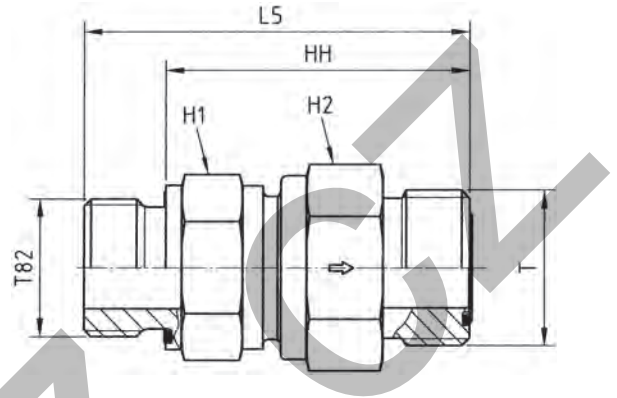
Information on ordering complete fittings or alternative sealing materials see page 17.

Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional suffix needed)
Steel	CF	4RHZ50MLOSCF	NBR

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

## 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	M 12×1.5	9/16-18 UNF	19	19	48.5	36.5	3.5	89	<b>4M12RHV82EDMLOS</b>	420
8, 10	5/16, 3/8	M 16×1.5	11/16-16 UNF	22	24	56.5	44.5	5.5	157	<b>6M16RHV82EDMLOS</b>	420
12	1/2	M 18×1.5	13/16-16 UNF	24	27	61.5	49.5	7.5	195	<b>8M18RHV82EDMLOS</b>	420
14, 15, 16	5/8	M 22×1.5	1-14 UNF	32	36	72.0	58.0	11.5	369	<b>10M22RHV82EDMLOS</b>	420
18, 20	3/4	M 27×2.0	1 3/16-12 UNF	41	46	79.5	63.5	15.0	628	<b>12M27RHV82EDMLOS</b>	420
22, 25	1	M 33×2.0	1 7/16-12 UNF	46	50	84.0	66.0	19.0	867	<b>16M33RHV82EDMLOS</b>	420
28, 30, 32	1 1/4	M 42×2.0	1 11/16-12 UNF	60	60	95.0	75.0	24.0	1409	<b>20M42RHV82EDMLOS</b>	250
35, 38	1 1/2	M 48×2.0	2-12 UNF	65	70	103.0	81.0	29.0	1970	<b>24M48RHV82EDMLOS</b>	250

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

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

Information on ordering complete fittings or alternative sealing materials see page 17.

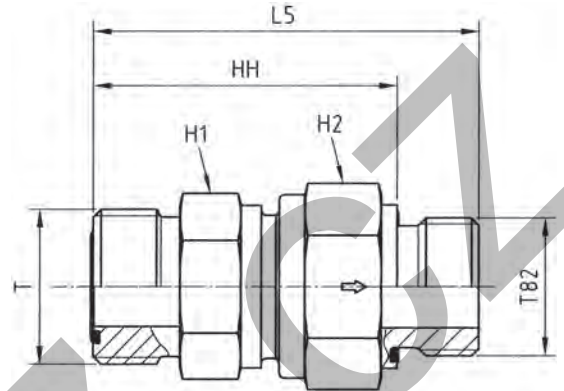
Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional suffix needed)
Steel	CF	4M12RHV82EDMLOS	NBR

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



## 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	M 12×1.5	9/16-18 UNF	19	19	48.5	36.5	3.5	89	<b>4M12RHZ82EDMLOS</b>	420
8, 10	5/16, 3/8	M 16×1.5	11/16-16 UNF	24	27	59.1	47.1	7.5	156	<b>6M16RHZ82EDMLOS</b>	420
12	1/2	M 18×1.5	13/16-16 UNF	24	27	61.5	49.5	7.5	195	<b>8M18RHZ82EDMLOS</b>	420
14, 15, 16	5/8	M 22×1.5	1-14 UNF	32	36	70.0	56.0	11.5	352	<b>10M22RHZ82EDMLOS</b>	420
18, 20	3/4	M 27×2.0	1 3/16-12 UNF	41	46	77.5	61.5	15.0	608	<b>12M27RHZ82EDMLOS</b>	420
22, 25	1	M 33×2.0	1 7/16-12 UNF	46	50	84.0	66.0	19.0	965	<b>16M33RHZ82EDMLOS</b>	420
28, 30, 32	1 1/4	M 42×2.0	1 11/16-12 UNF	60	60	95.0	75.0	24.0	1396	<b>20M42RHZ82EDMLOS</b>	250
35, 38	1 1/2	M 48×2.0	2-12 UNF	65	70	115.0	93.0	29.0	1978	<b>24M48RHZ82EDMLOS</b>	250

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

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

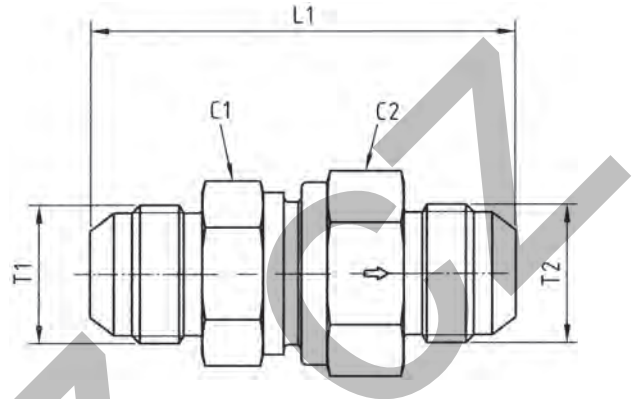
Information on ordering complete fittings or alternative sealing materials see page 17.

Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional suffix needed)
Steel	CF	4M12RHZ82EDMLOS	NBR

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

## 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	7/16-20 UNF	7/16-20 UNF	19	19	52.5	3.5	108	<b>4RHDMTXS</b>	420
8	5/16	8	5/16	1/2-20 UNF	1/2-20 UNF	22	24	59.5	5.5	188	<b>5RHDMTXS</b>	420
10	3/8	10	3/8	9/16-18 UNF	9/16-18 UNF	24	27	61.5	7.5	223	<b>6RHDMTXS</b>	420
12	1/2	12	1/2	3/4-16 UNF	3/4-16 UNF	27	32	69.5	9.5	324	<b>8RHDMTXS</b>	420
14, 15, 16	5/8	14, 15, 16	5/8	7/8-14 UNF	7/8-14 UNF	32	36	78.5	11.5	428	<b>10RHDMTXS</b>	350
18, 20	3/4	18, 20	3/4	1 1/16-12 UN	1 1/16-12 UN	41	50	87.5	15.0	731	<b>12RHDMTXS</b>	350
25	1	25	1	1 5/16-12 UN	1 5/16-12 UN	46	50	92.5	19.0	1076	<b>16RHDMTXS</b>	280
28, 30, 32	1 1/4	28, 30, 32	1 1/4	1 5/8-12 UN	1 5/8-12 UN	60	60	105.5	24.0	1630	<b>20RHDMTXS</b>	250
35, 38	1 1/2	35, 38	1 1/2	1 7/8-12 UN	1 7/8-12 UN	65	70	118.5	29.0	2362	<b>24RHDMTXS</b>	210

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

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

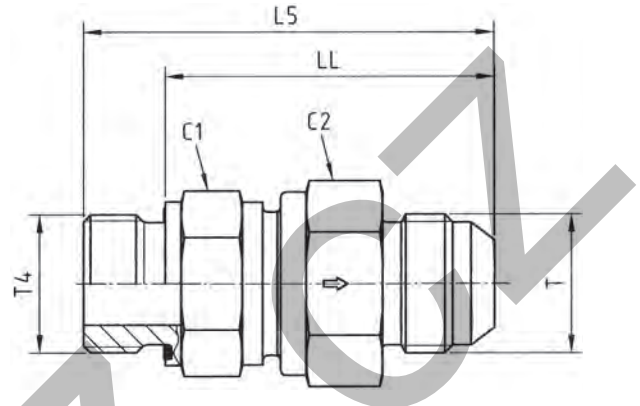
Information on ordering complete fittings or alternative sealing materials see page I7.

Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional suffix needed)
Steel	CF	4RHDMTXS CF	NBR

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

## 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	7/16-20 UNF	19	19	48.0	40.0	3.5	92	<b>4RHV42EDMXS</b>	420
8	5/16	G 1/4	1/2-20 UNF	22	24	59.5	47.5	5.5	165	<b>5-4RHV42EDMXS</b>	420
10	3/8	G 1/4	9/16-18 UNF	24	27	62.0	50.0	7.5	191	<b>6RHV42EDMXS</b>	420
12	1/2	G 3/8	3/4-16 UNF	27	32	67.0	55.0	9.5	277	<b>8RHV42EDMXS</b>	420
14, 15, 16	5/8	G 1/2	7/8-14 UNF	32	36	76.0	62.0	11.5	366	<b>10RHV42EDMXS</b>	350
18, 20	3/4	G 3/4	1 1/16-12 UN	41	46	84.5	68.5	15.0	631	<b>12RHV42EDMXS</b>	350
25	1	G 1	1 5/16-12 UN	46	50	89.5	71.5	19.0	863	<b>16RHV42EDMXS</b>	280
28, 30, 32	1 1/4	G 1 1/4	1 5/8-12 UN	60	60	102.0	82.0	24.0	1403	<b>20RHV42EDMXS</b>	250
35, 38	1 1/2	G 1 1/2	1 7/8-12 UN	65	70	113.0	91.0	29.0	1969	<b>24RHV42EDMXS</b>	210

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

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

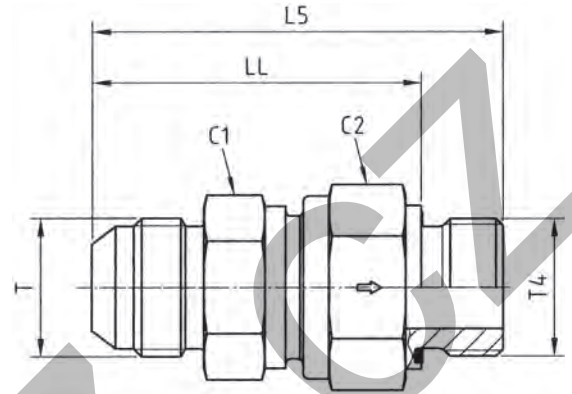
Information on ordering complete fittings or alternative sealing materials see page I7.

Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional suffix needed)
Steel	CF	4RHV42EDMXSCF	NBR

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

## 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>	CF
mm	Inch	T4										
6	1/4	G 1/8	7/16-20 UNF	19	19	48.0	40.0	3.5	89	<b>4RHZ42EDMXS</b>	420	
8	5/16	G 1/4	1/2-20 UNF	22	24	59.0	47.0	5.5	156	<b>5-4RHZ42EDMXS</b>	420	
10	3/8	G 1/4	9/16-18 UNF	24	27	62.0	50.0	7.5	190	<b>6RHZ42EDMXS</b>	420	
12	1/2	G 3/8	3/4-16 UNF	27	32	66.0	54.0	9.5	278	<b>8RHZ42EDMXS</b>	420	
14, 15, 16	5/8	G 1/2	7/8-14 UNF	32	36	74.0	60.0	11.5	348	<b>10RHZ42EDMXS</b>	350	
18, 20	3/4	G 3/4	1 1/16-12 UN	41	46	82.5	66.5	15.0	634	<b>12RHZ42EDMXS</b>	350	
25	1	G 1	1 5/16-12 UN	46	50	89.5	71.5	19.0	863	<b>16RHZ42EDMXS</b>	280	
28, 30, 32	1 1/4	G 1 1/4	1 5/8-12 UN	60	60	102.0	82.0	24.0	1397	<b>20RHZ42EDMXS</b>	250	
35, 38	1 1/2	G 1 1/2	1 7/8-12 UN	65	70	115.0	93.0	29.0	2001	<b>24RHZ42EDMXS</b>	210	

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

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

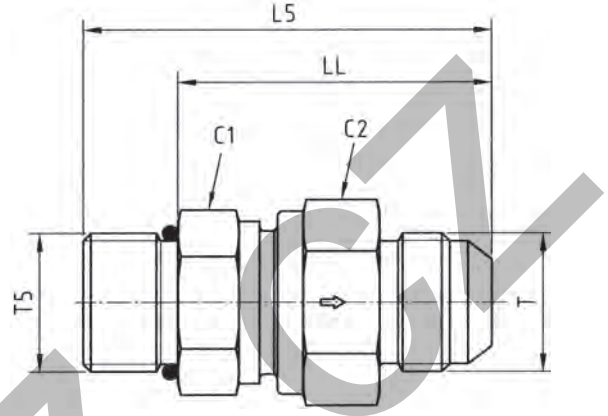
Information on ordering complete fittings or alternative sealing materials see page I7.

Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional suffix needed)
Steel	CF	4RHZ42EDMXSCF	NBR

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

## 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	7/16-20 UNF	7/16-20 UNF	19	19	49.5	38.5	3.5	92	<b>4RHV5OMXS</b>	420
8	5/16	1/2-20 UNF	1/2-20 UNF	22	24	56.5	45.5	5.5	165	<b>5RHV5OMXS</b>	420
10	3/8	9/16-18 UNF	9/16-18 UNF	24	27	59.5	47.5	7.5	191	<b>6RHV5OMXS</b>	420
12	1/2	3/4-16 UNF	3/4-16 UNF	27	32	66.5	52.5	9.5	277	<b>8RHV5OMXS</b>	420
14, 15, 16	5/8	7/8-14 UNF	7/8-14 UNF	32	36	75.0	59.0	11.5	366	<b>10RHV5OMXS</b>	350
18, 20	3/4	1 1/16-12 UN	1 1/16-12 UN	41	46	84.0	65.5	15.0	631	<b>12RHV5OMXS</b>	350
25	1	1 5/16-12 UN	1 5/16-12 UN	46	50	88.0	69.5	19.0	863	<b>16RHV5OMXS</b>	280
28, 30, 32	1 1/4	1 5/8-12 UN	1 5/8-12 UN	60	60	99.5	81.0	24.0	1403	<b>20RHV5OMXS</b>	250
35, 38	1 1/2	1 7/8-12 UN	1 7/8-12 UN	65	70	109.5	91.0	29.0	1969	<b>24RHV5OMXS</b>	210

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

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

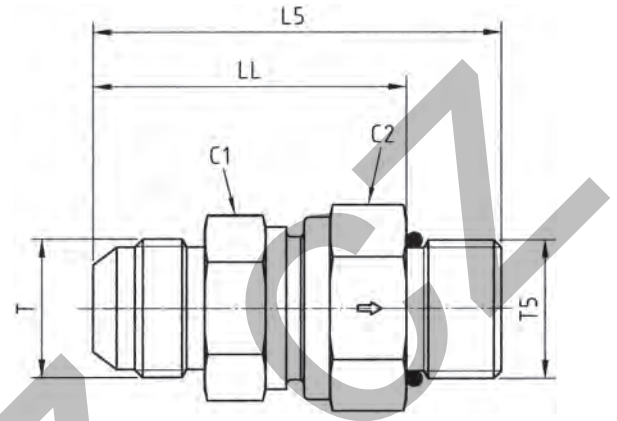
Information on ordering complete fittings or alternative sealing materials see page I7.

Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional suffix needed)
Steel	CF	RHV5OMXSCF	NBR

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

## 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	7/16-20 UNF	7/16-18 UNF	19	19	49.5	38.5	3.5	91	<b>4RHZ5OMXS</b>	420
8	5/16	1/2-20 UNF	1/2-20 UNF	22	24	56.5	45.5	5.5	161	<b>5RHZ5OMXS</b>	420
10	3/8	9/16-18 UNF	9/16-18 UNF	24	27	59.5	47.5	7.5	190	<b>6RHZ5OMXS</b>	420
12	1/2	3/4-16 UNF	3/4-16 UNF	27	32	66.5	52.5	9.5	278	<b>8RHZ5OMXS</b>	420
14, 15, 16	5/8	7/8-14 UNF	7/8-14 UNF	32	36	75.0	59.0	11.5	348	<b>10RHZ5OMXS</b>	350
18, 20	3/4	1 1/16-12 UN	1 1/16-12 UN	41	46	84.0	65.5	15.0	634	<b>12RHZ5OMXS</b>	350
25	1	1 5/16-12 UN	1 5/16-12 UN	46	50	88.0	69.5	19.0	863	<b>16RHZ5OMXS</b>	280
28, 30, 32	1 1/4	1 5/8-12 UN	1 5/8-12 UN	60	60	107.0	81.0	24.0	1397	<b>20RHZ5OMXS</b>	250
35, 38	1 1/2	1 7/8-12 UN	1 7/8-12 UN	65	70	109.5	91.0	29.0	2001	<b>24RHZ5OMXS</b>	210

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

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

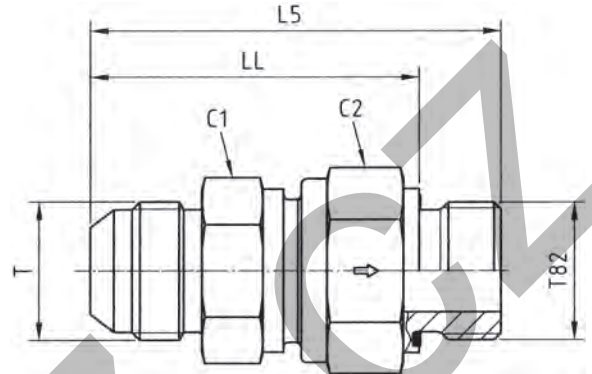
Information on ordering complete fittings or alternative sealing materials see page I7.

Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional suffix needed)
Steel	CF	4RHZ5OMXSFCF	NBR

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

## 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	M 10×1.0	7/16-20 UNF	19	19	48.0	40.0	3.5	89	<b>4M10RHV82EDMXS</b>	420
8	5/16	M 12×1.5	1/2-20 UNF	22	24	59.5	47.5	5.5	157	<b>5M12RHV82EDMXS</b>	420
10	3/8	M 14×1.5	9/16-18 UNF	24	27	62.0	50.0	7.5	195	<b>6M14RHV82EDMXS</b>	420
12	1/2	M 16×1.5	3/4-16 UNF	27	32	67.0	55.0	9.5	274	<b>8M16RHV82EDMXS</b>	420
14, 15, 16	5/8	M 18×1.5	7/8-14 UNF	32	36	73.5	61.5	11.5	369	<b>10M18RHV82EDMXS</b>	350
18, 20	3/4	M 27×2.0	1 1/16-12 UN	41	46	84.5	68.5	15.0	628	<b>12M27RHV82EDMXS</b>	350
25	1	M 33×2.0	1 5/16-12 UN	46	50	89.5	71.5	19.0	867	<b>16M33RHV82EDMXS</b>	280
28, 30, 32	1 1/4	M 42×2.0	1 5/8-12 UN	60	60	102.0	82.0	24.0	1409	<b>20M42RHV82EDMXS</b>	250
35, 38	1 1/2	M 48×2.0	1 7/8-12 UN	65	70	113.0	91.0	29.0	1970	<b>24M48RHV82EDMXS</b>	210

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

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

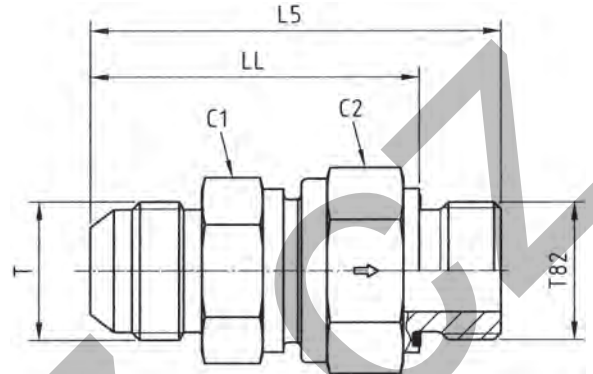
Information on ordering complete fittings or alternative sealing materials see page I7.

Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional suffix needed)
Steel	CF	4M10RHV82EDMXSCF	NBR

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

## 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	M 10×1.0	7/16-20 UNF	19	19	48.0	40.0	3.5	89	<b>4M10RHZ82EDMXS</b>	420
8	5/16	M 12×1.5	1/2-20 UNF	22	24	59.5	47.5	5.5	156	<b>5M12RHZ82EDMXS</b>	420
10	3/8	M 14×1.5	9/16-18 UNF	24	27	62.0	50.0	7.5	195	<b>6M14RHZ82EDMXS</b>	420
12	1/2	M 16×1.5	3/4-16 UNF	27	32	66.0	54.0	9.5	272	<b>8M16RHZ82EDMXS</b>	420
14, 15, 16	5/8	M 18×1.5	7/8-14 UNF	32	36	71.5	59.5	11.5	352	<b>10M18RHZ82EDMXS</b>	350
18, 20	3/4	M 27×2.0	1 1/16-12 UN	41	46	82.5	66.5	15.0	608	<b>12M27RHZ82EDMXS</b>	350
25	1	M 33×2.0	1 5/16-12 UN	46	50	89.5	71.5	19.0	965	<b>16M33RHZ82EDMXS</b>	280
28, 30, 32	1 1/4	M 42×2.0	1 5/8-12 UN	60	60	102.0	82.0	24.0	1396	<b>20M42RHZ82EDMXS</b>	250
35, 38	1 1/2	M 48×2.0	1 7/8-12 UN	65	70	115.0	93.0	29.0	1807	<b>24M48RHZ82EDMXS</b>	210

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

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

Information on ordering complete fittings or alternative sealing materials see page I7.

Order code suffixes			
Material	Suffix surface and material	Example	Standard sealing material (no additional suffix needed)
Steel	CF	4M10RHZ82EDMXSCF	NBR

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



## Ball valves

### Technical data ball valves

#### Leakage rate

0 drops/bubbles per min. (DIN EN 12266 and ISO 5208)

The pressure ratings PN for ball- and shut off- valves include design factor 1.5 for the body and 1.1 for the ball seat (according to DIN EN 12266 and ISO 5208).

### Steel Ball Valves

#### Materials:

Body: Steel

Ball: Hardchrome plated carbon steel

Stem: Steel

#### Seals:

Ball seat: POM

Stem seal: NBR

According to application, different seal combinations are available.

#### Temperature range:\*

-10 up to +100 °C.

### Stainless Steel Ball Valves

#### Materials:

Body: Stainless steel

Ball: Stainless steel

Connectors: Stainless steel

#### Seals:

Ball seat: POM

Stem seal: NBR

According to application, different seal combinations are available.

#### Temperature range:

-30 up to +100°C.

(Caution: reduced pressure ratings, see pages O37ff).

#### Applications:

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

Different media and applications on request\*

#### Caution!

Please note the admissible pressure ratings for the tube connection. Ball valves are not suitable for use as flow restriction.

#### \*Remarks:

For clarification of the suitability of the ball valves for different media and applications please provide the following data: system pressure, medium, temperature, possible pressure peaks (including pressure and frequency) and possible operation with full differential pressure.

### Certifications and approvals

#### On demand

3.1 Material certificate (DIN EN 10204)

3.1 Pressure test (DIN EN 10204)

3.2 Certificate (DIN EN 10204)

DNV/GL

ABS

BV

Other certificates on request

### Additional components and custom designs

#### on request

Locking devices (P51)

Lever

Actuators

Limit switches

Ball valves for gas applications

Ball valve combinations

High pressure/High temperature ball valves

Fire safe/ATEX

Custom made special blocks

## Material properties

### Material of body, connections, ball and stem

	Pressure reduction in % in relation to permitted system temperature in °C													
	-60°	-50°	-40°	-30°	-20°	-10°	0°	+20°	+80°	+100°	+120°	+130°	+150°	+200°
Steel	0%													
Low alloy steel	25%					0%								
Stainless steel	0%										11%			
Duplex						0%					20%			

### Sealing material ball seat

	Pressure reduction in % in relation to permitted system temperature in °C													
	-60°	-50°	-40°	-30°	-20°	-10°	0°	+20°	+80°	+100°	+120°	+130°	+150°	+200°
POM	0%													
PEEK natural (unfilled)	see separate table on page O38													
PEEK (graphite filled)	see separate table on page O38													
PTFE	see separate table on page O38													

### Sealing material stem and adapter

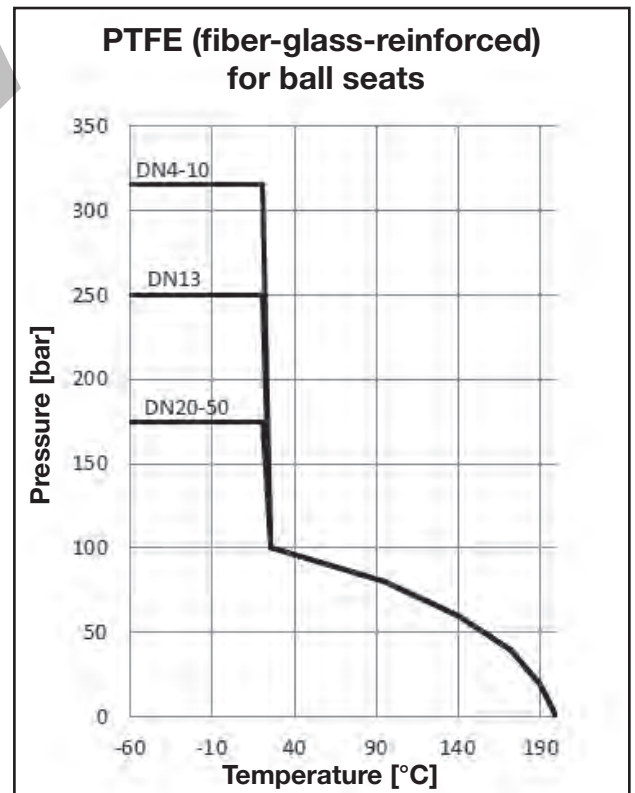
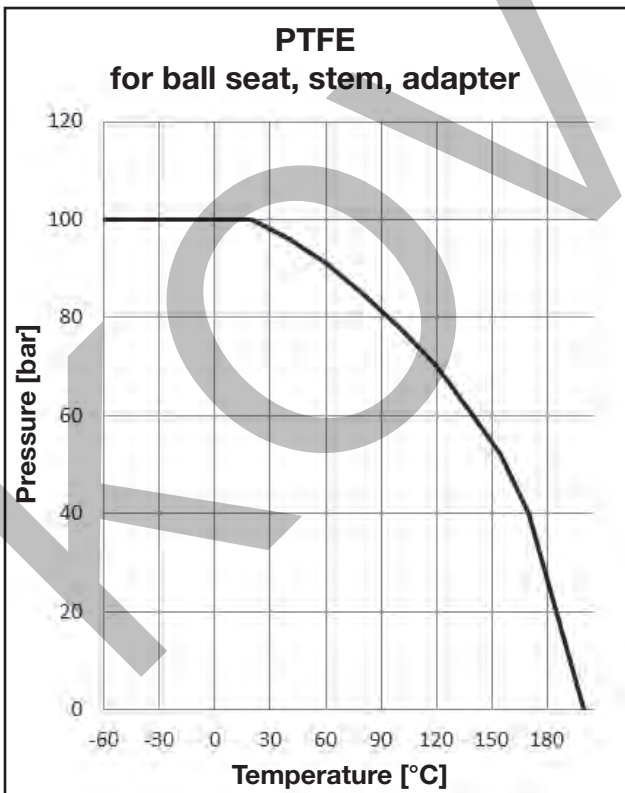
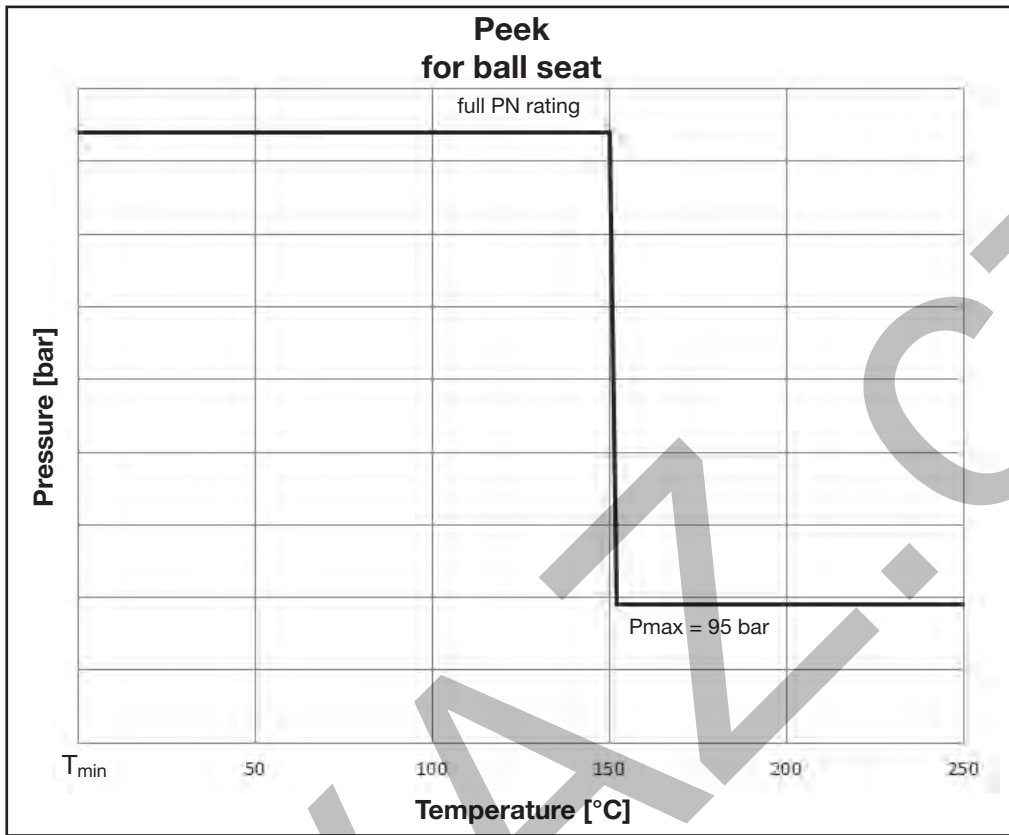
	Pressure reduction in % in relation to permitted system temperature in °C													
	-60°	-50°	-40°	-30°	-20°	-10°	0°	+20°	+80°	+100°	+120°	+130°	+150°	+200°
NBR	0%													
FKM	0%													
EPDM	0%													
PTFE	see separate table on page O38													

permitted system temperature
  system temperature not permitted

### Example

KH18LPEEK/FKM71X	Application temperature: max. 180 °C	Formula:
PN = 420 bar		$P_{max}(180^{\circ}C) = 95\text{bar}$
Body: 1.4571	Pressure reduction body: 11%	
Ball Seat: PEEK (graphite filled)	Pressure ball seat: 95 bar	
O-ring: FKM	Pressure reduction O-ring: 0%	

### PEEK/PTFE Pressure / Temperature Diagram



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