

1.2

Check valve (large size)

Type S...L1X

Sizes 52 to 150 Up to 315bar Up to 15000 L/min



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Features

- Sub-plate mounting (Size 52)
- Flange connection (Sizes 52 to 150)
- Leakage-free closure in one direction
- Various cracking pressures, optional (see Ordering code)

Symbol



Function and configuration

The check valve type S permits free flow in one direction and closure in opposite direction with leakage.

It basically comprises of the housing (1), poppet

(2) compression spring (3) and the spring seat(4). The stroke of the poppet (2), which is guided on its outside diameter, is limited by a mechanical stop----the spring seat(4). The built-in compression spring (3) supports the closing movement. The compression spring(3) holds the poppet (2) in the closed position even when there is no flow through the valve.

When fluid flows through the valve in the open direction, the poppet (2) lifts due to the fluid pressure. In the opposite direction the compression spring (3) and the fluid presses the poppet (2) onto its seat (4) and thus closes the connection.

For check valves without spring, the fixed position should ensure that the poppet can locate itself closed under its gravity.



Ordering code

	S		- L1X/	*	
Check valve	=S			No code = V =	Further details in clear text NBR seals FKM seals
Nominal size 52 Nominal size 62 Nominal size 82 Nominal size 102 Nominal size 125	= 52 = 62 = 82 =102 =125			L1X =	Series L10 to L19 unchanged installation and connection dimensions)
Nominal size 150	=150	= F	0 = 1 = 2 =		Without spring Crack pressure 0.5bar Crack pressure 1.5bar
Sub-plate mounting	(Only size 52)		3 =		nominal sizes 125 and 150) Crack pressure 3bar nominal sizes 125 and 150)

Technical data

Max. operating pressure	bar	315										
Crack pressure	bar	Refer to the characteristic curve										
Max. flow -rate	L/min	Refer to th	Refer to the characteristic curve									
Viscosity range	mm²/s	2.8 to 500										
	°C	-30 to +80 (NBR seal)										
Fluid temperature range	L	-20 to +80 (FKM seal)										
Fluid		Mineral oil suit for NBR and FKM seal										
Fluid		Phosphate ester for FKM seal										
		Maximum permissible degree of fluid contamination:										
Degree of contamination		Class 9. NA	Class 9. NAS 1638 or 20/18/15, ISO4406									
Size		52	62	82	102	125	150					

Characteristic curves (Measured at $\vartheta_{oil}=40^{\circ}C \pm 5^{\circ}C$, using HLP46)

Pressure differential ΔP in relation to the flow Q at the cracking pressure.





Unit dimensions: sub-plate mounting

(Dimensions in mm)





Size

52

0-ring

54×3



- 1 Free flow in direction of arrow 2 Name plate
- 2 Name plate

Valve fixing screws

GB/T70.1-M16×130

- 3 Eyebolt for transport
- 1 pcs with sizes 52



M_A(Tighting torque)

310Nm



Requirement for mounting surface

Size	В1	B2	B3	ΦD1	ΦD2	ΦD3	Н1	H2	L1	L2	L3	L4	L5	L6	L7	L8	Т1	A/F	Weight (kg)
52	40	115	145	60	50	18	105	141	25	50	77	100	12	75	172	207	2.3	14	20

D4, T2

M16,32

Unit dimensions: flange connection sizes 52 to 102

(Dimensions in mm)







1 Free flow in direction of arrow

2 Name plate

3 Eyebolt for transport

Size	B1	B2	ΦD1	D2	D3	ΦD4	H1	H2	L1	L2	T1	T2	H3	Weight(kg)
52	10	100	45	M10	M16	98	98	134	135.5	67.5	15	26	80	10
62	10	120	55	M10	M20	118	118	154	165.5	82.5	15	32	100	15
82	15	150	72	M12	M24	145	148	184	195.5	97.5	20	36	120	34
102	15	180	90	M12	M30	175	178	214	245.5	122.5	20	40	150	62

Unit dimensions: flange connection sizes 125 to 150

(Dimensions in mm)







1 Free flow in direction of arrow 2 Name plate 3 Eyebolt for transport

Size	ΦD1	ΦD2	D3	ØD4	H1	L1	T1	Weight (kg)
125	122	300	M30	245	353	350.5	50	190
150	150	360	M36	290	431	501	60	370