

1.2

# Check valve (large size)

## Type S...L1X

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



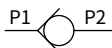
### Contents

Function and configuration	02
Ordering code	02
Technical data	03
Characteristic curves	03
Unit dimensions:	04-05
· sub-plate mounting	04
· flange connection sizes 52 to 102	05
· flange connection sizes 125 to 150	05

### Features

- Sub-plate mounting (Sizes 52 to 82)
- Flange connection (Sizes 52 to 150)
- Leakage-free closure in one direction
- Various cracking pressures, optional (see Ordering code)

### Symbol



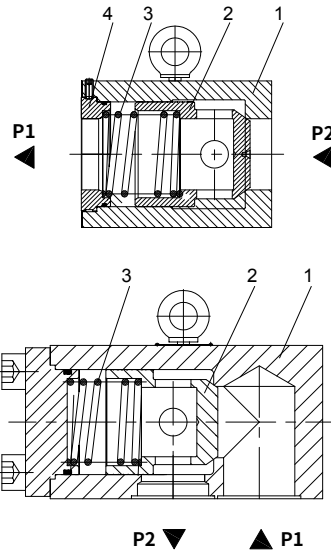
## Function and configuration

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	*	Further details in clear text
Check valve =S				No code = NBR seals V = FKM seals
Nominal size 52 = 52				L1X = Series L10 to L19 (L10 to L19: unchanged installation and connection dimensions)
Nominal size 62 = 62				0 = Without spring
Nominal size 82 = 82				1 = Crack pressure 0.5bar
Nominal size 102 =102				2 = Crack pressure 1.5bar
Nominal size 125 =125				(Not for nominal sizes 125 and 150)
Nominal size 150 =150				3 = Crack pressure 3bar
				(Not for nominal sizes 125 and 150)
Flange connection = F				
Sub-plate mounting (Size 52 to 82) = P				

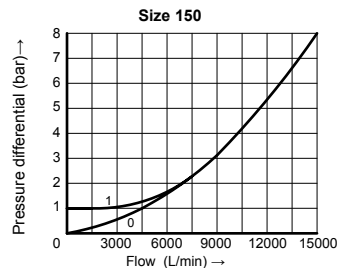
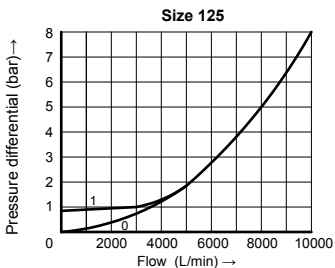
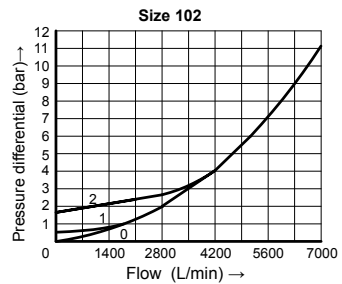
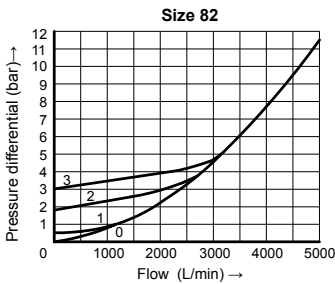
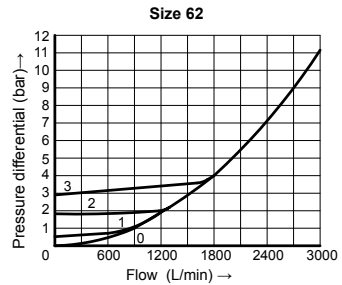
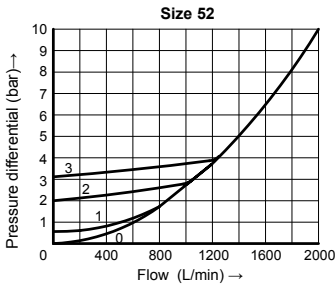
## Technical data

Max. operating pressure	bar	315					
Crack pressure	bar	Refer to the characteristic curve					
Max. flow -rate	L/min	Refer to the characteristic curve					
Viscosity range	mm <sup>2</sup> /s	2.8 to 500					
Fluid temperature range	°C	-30 to +80 (NBR seal) -20 to +80 (FKM seal)					
Fluid		Mineral oil suit for NBR and FKM seal Phosphate ester for FKM seal					
Degree of contamination		Maximum permissible degree of fluid contamination: Class 9. NAS 1638 or 20/18/15, ISO4406					
Size		52	62	82	102	125	150
All flange connections		LC455					

01

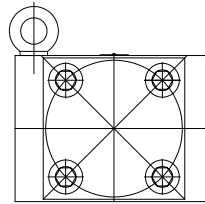
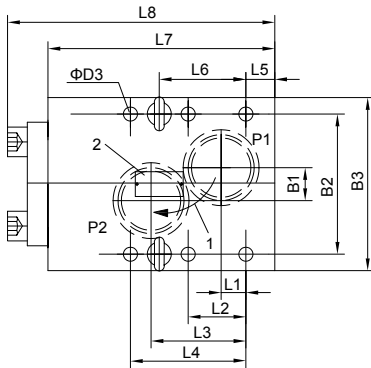
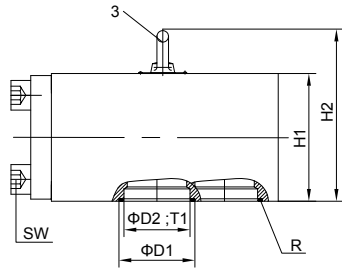
## Characteristic curves (Measured at $\vartheta_{oil}=40^{\circ}\text{C} \pm 5^{\circ}\text{C}$ , using HLP46)

Pressure differential  $\Delta P$  in relation to the flow  $Q$  at the cracking pressure.

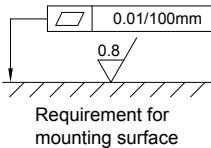
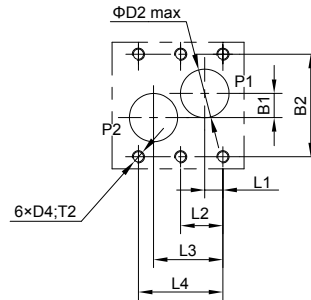


# Unit dimensions: sub-plate mounting

(Dimensions in mm)



- 1 Free flow in direction of arrow
- 2 Name plate
- 3 Eyebolt for transport
  - 1 pcs with sizes 52 and 62
  - 2 pcs with size 82

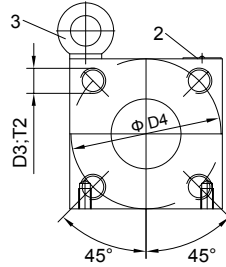
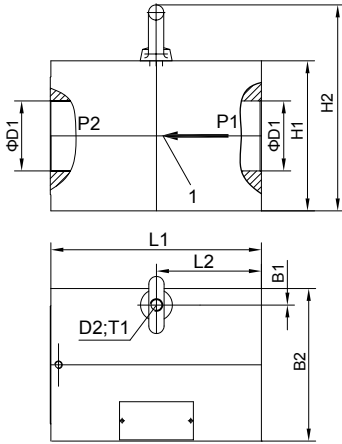


Size	O-ring	D4, T2	Valve fixing screws	M <sub>A</sub> (Tighting torque)
52	54×3	M16,32	GB/T70.1-M16×130	310Nm
62	63.1×3.53	M20,40	GB/T70.1-M20×160	620Nm
82	85.32×3.53	M20,40	GB/T70.1-M20×190	620Nm

Size	B1	B2	B3	ΦD1	ΦD2	ΦD3	H1	H2	L1	L2	L3	L4	L5	L6	L7	L8	T1	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
62	40	140	180	70	60	22	125	161	34	65	100	128	17.5	96	220	262.5	2.7	17	38
82	50	170	210	92	80	22	155	191	30	70	115	140	35	105	275	325	2.7	19	70

### Unit dimensions: flange connection sizes 52 to 102

(Dimensions in mm)

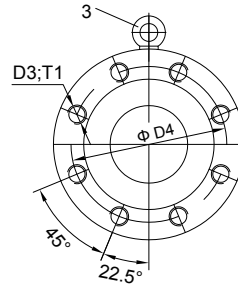
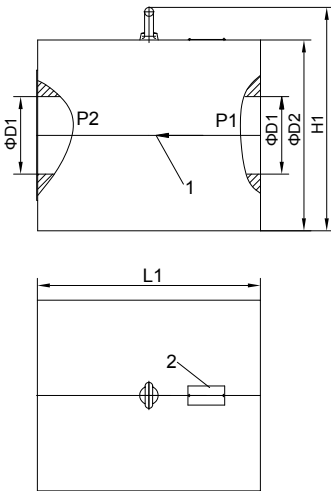


- 1 Free flow in direction of arrow
  - 2 Name plate
  - 3 Eyebolt for transport
- For suitable connection flanges see LC455

Size	B1	B2	ΦD1	D2	D3	ΦD4	H1	H2	L1	L2	T1	T2	Weight(kg)
52	10	100	45	M10	M16	98	98	134	135.5	67.5	15	26	10
62	10	120	55	M10	M20	118	118	154	165.5	82.5	15	32	15
82	15	150	72	M12	M24	145	148	184	195.5	97.5	20	36	34
102	15	180	90	M12	M30	175	178	214	245.5	122.5	20	40	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
- For suitable connection flanges see LC455

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

**China**

+86 400 101 8889

**America**

+01 630 995 3674

**Germany**

+49 172 3683463

**Japan**

+81 03 6809 1696



© This brochure can be reproduced, edited, reproduced or transmitted electronically without the authorization of Hengli Hydraulic Company. Due to the continuous development of the product, the information in this brochure is not specific to the specific conditions or applicability of the industry, thus, Hengli does not take any responsibility for any incomplete or inaccurate description.