

Modular Check Valve

Model: Z1S10...3X



- ◆ Size 10
- ◆ Maximum working pressure 315 bar
- ◆ Maximum working flow 100 L/min

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Features

- Modular type valve
- For vertical stacking installation

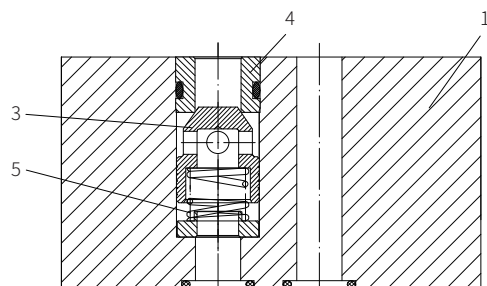
Functional description, sectional drawing

The Z1S10 type valve is a direct operated check valve with a modular structure. This check valve is closed without leakage in one direction and allows free flow in the other direction.

The stroke of the conical spool (3) is limited by the spring seat (4). The spring (5) causes the conical spool (3) to close. When there is no fluid flows through the valve, the spring (5) holds the conical spool (3) in the closed position.

Model Z1S10...3XJ/V (metal-sealed)

This valve has a metallic seal between the conical spool (3) and the valve body (1). Therefore, it is particularly suitable for condition of working pressure higher than 100bar and the flow rate greater than 4m/s.



Model Z1S10...3XJ/V

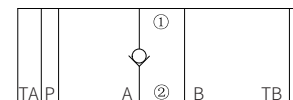
Models and specifications

Z1S	10			-	3X	/		*
modular check valve								more information in text
size 10	=10							No code= metal-sealed
leakage-free blocking in								sealing material
oil port A (A1→A2)	=A							No code= NBR seals
oil port B (B1→B2)	=B							V= FKM seals
oil port A (A2→A1)	=C							(consult for other seals)
oil port B (B2→B1)	=D							
ports A and B	=E							
(A2→A1) and (B2→B1)								
ports P and T	=F							
(P1→P2) and (T2→T1)								
oil port P (P1→P2)	=P							
oil port T (T2→T1)	=T							
cracking pressure								
0.5bar	=1							
3.0bar	=2							
5.0bar	=3							

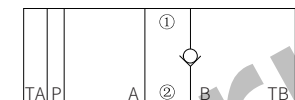
Functional symbols

(①= Valve side, ②= Subplate side)

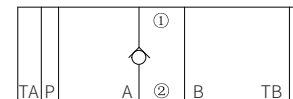
Model Z1S10A...



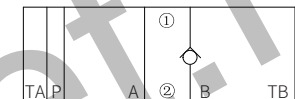
Model Z1S10B...



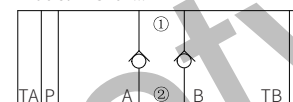
Model Z1S10C...



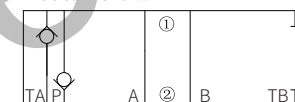
Model Z1S10D...



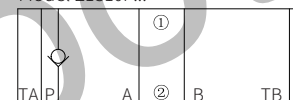
Model Z1S10E...



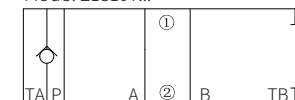
Model Z1S10F...



Model Z1S10P...



Model Z1S10T...



Technical Parameters

Overview		
Weight	kg	0.8
Installation position		Optional
Environment temperature range	°C	-20 to +80
Hydraulic		
Maximum working pressure	bar	315
Cracking pressure — Metal-sealed		0.5; 3; 5
Maximum flow	L/min	40
Flow rate — Metal-sealed	m/s	>4
Pressure medium		Mineral oil (HL, HLP) ¹⁾ in accordance with DIN 51524; Fast living organisms degraded oil according to VDMA 24568; HETG (Rapeseed oil) ¹⁾ ; HEPG(Polyethyleneglycol) ²⁾ ; HEES (Synthetic Fats) ²⁾
Oil temperature range	°C	-20 to +80
Viscosity range	mm ² /s	2.8 to 500
Cleanliness of oil		The maximum allowable pollution level of oil is ISO4406 Class 20 / 18 / 15

1) For NBR seal and FKM seal.

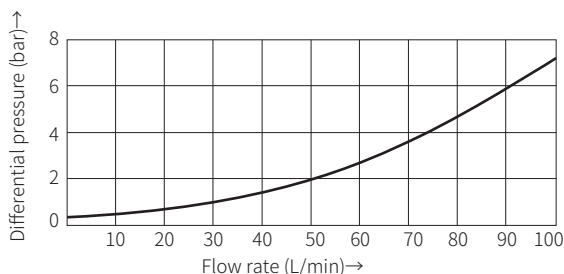
2) Only for FKM seal.

3) The oil must meet the cleanliness degree requested by the components in the hydraulic system. Effective oil filtration can prevent failure and increase the service life of the components.

Characteristic curve

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

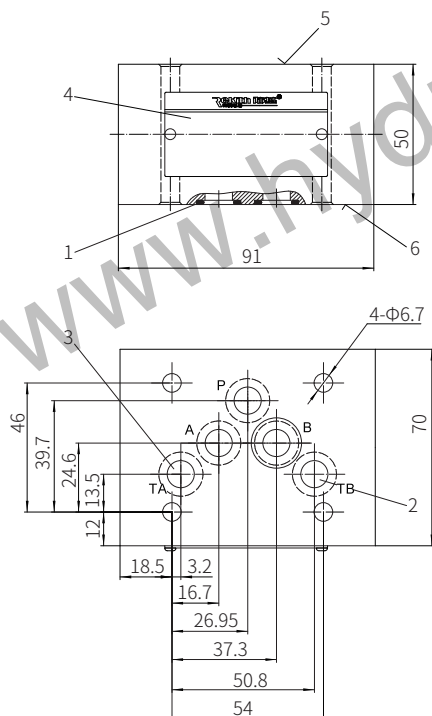
Δp -q Characteristic curve (A1 to A2)



Component size

Size unit: mm

Model Z1S10...-3XJ/...



- 10 ring 12x2 (for oil port A, B, P, TA, TB)
- 2 This port is blocked for "F" and "T" type valves
- 3 In "F" and "T" type valves, the check valve is installed in this channel
- 4 Name plate
- 5 Valve side
- 6 Subplate side

Valve fixing screw (need to be ordered separately)
M6-10.9 grade GB/T70.1-2000
Tightening torque $M_A = 13.7\text{N}\cdot\text{m}$

