

Modular Hydraulic Control Check Valve

Model: Z2S4...6XJ



01

- ◆ Size 4
- ◆ Maximum working pressure 320 bar
- ◆ Maximum working flow 20 L/min

Contents

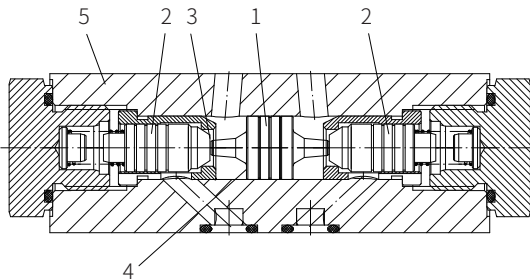
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Features

- For vertical stacking installation
- One or two working oil ports blocked for leakage-free as required

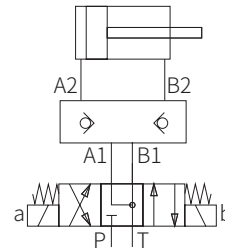
Functional description, sectional drawing

The Z2S type is a superimposed structure hydraulically control check valve. This type of valve can keep one or two working oil ports leakage-free even if it works for a long time. There is a free flow in the direction A1 to A2 and B1 to B2 but closed in the opposite direction. When the oil flows from A1 to A2 or B1 to B2, the piston (1) works, the control spool (1) is moved to the right or left and pushes the valve spool (2) away from its seat. In order to ensure the valve spool (2) to be closed safely, the oil must flow from B2 to B1 or A2 to A1. The working oil port of the directional valve must be connected to the oil tank in the neutral position (see circuit example).



Model Z2S4...6XJ/

Circuit example



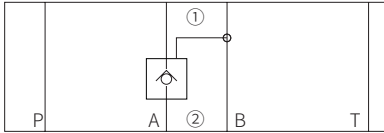
Models and specifications

Z2S		4		-6X	J	/	*
modular hydraulic control check valve	=Z2S						more information in text
size 4	=4						sealing material
oil port A and B leakage-free blocking in	=						No code= NBR seals
oil port A leakage-free blocking in	=A						V= FKM seals
oil port B leakage-free blocking in	=B						(consult for other seals)
cracking pressure 1 bar	=1				J=		Rekith
				6X=			60 to 69 series
							(60 to 69 series installation and connection size unchanged)

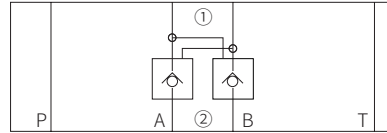
Functional symbols

(①= Valve side, ②= Subplate side)

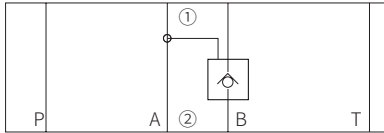
Model Z2S4A...



Model Z2S4...



Model Z2S4B...



01

Technical Parameters

Overview		
Weight	kg	about 0.7
Installation position		Optional
Environment temperature range°C		-30 to +80 (NBR seal) -20 to +80 (FKM seal)
Hydraulic		
Maximum working pressure	bar	320
Cracking pressure in free flow direction	bar	1
Maximum flow	L/min	20
Flow rate		See functional symbols
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	-30 to + 80 (NBR seal) -20 to + 80 (FKM seal)
Viscosity range	mm²/s	2.8 to 500
Cleanliness of oil ³⁾		The maximum allowable pollution level of oil is ISO4406 Class 20/18/15
Area ratio (hydraulic piston/valve seat)		3:1

1) For NBR seal and FKM seal.

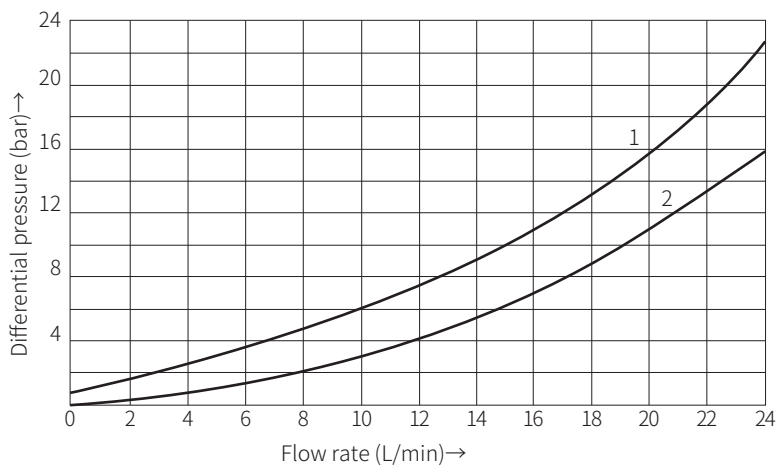
2) Only for FKM seal.

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_v Characteristic curve



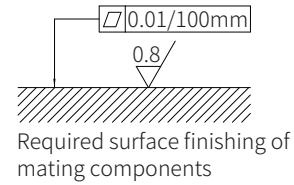
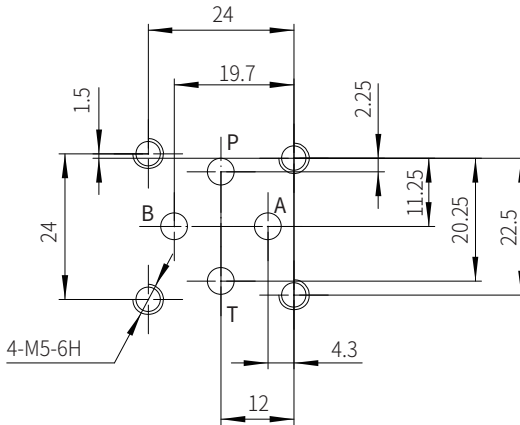
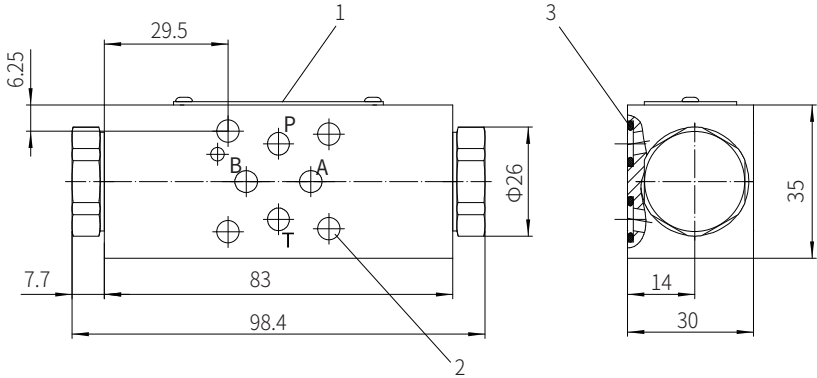
1 A1→A2 (B1→B2)

2 A2→A1 (B2→B1)

Component size

Size unit: mm

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Oil port P, A, B, T--max $\Phi 4.5\text{mm}$

- 1 Name plate
- 2 Mounting screw hole 4- $\Phi 5.4$
- 3 O-ring 7.5x1.8(for oil port P, A, B, T)

Valve fixing screw
M5-10.9 grade GB/T70.1-2000
Tightening torque $M_A=7.8\text{Nm}$