

RE 21 564/02.03

Replaces: 02.02

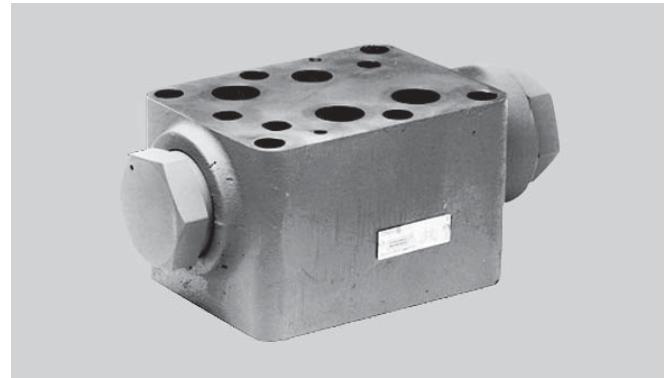
**Check valve,
hydraulic pilot operated,
Type Z2S 22**

Nominal size 25

Series 5X

Maximum operating pressure 315 bar

Maximum flow 450 L/min



K 3826-12

Type Z2S 22-1-5X/.

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Features

- Sandwich plate valve
- Porting pattern to DIN 24 340 form A, ISO 4401 and CETOP-RP 121 H
- For leak-free closure of one or two actuator connections
- For use in vertical stacking assemblies
- 4 cracking pressures, optional

Ordering details

Z2S 22		5X/		*
Sandwich plate check valve, NS25				Further details in clear text
Leak-free closure in ports A and B	= -			No code = NBR seals
Leak-free closure in port A	= A			V = FKM seals
Leak-free closure in port B	= B			(other seals on request)
Cracking pressure 3 bar	= 1			⚠ Attention! The compatibility of the seals and pressure fluid has to be taken into account!
Cracking pressure 5 bar	= 2			
Cracking pressure 7.5 bar	= 3			
Cracking pressure 10 bar	= 4			
		5X =		Series 50 to 59 (50 to 59: unchanged installation and connection dimensions)

Preferred types (readily available!)

Type	Material number
Z2S 22 -1-5X/	R900432915
Z2S 22 -A1-5X/	R900433032
Z2S 22 -B1-5X/	R900433037

Further standard components are shown in the EPS (Standard-Preisliste).

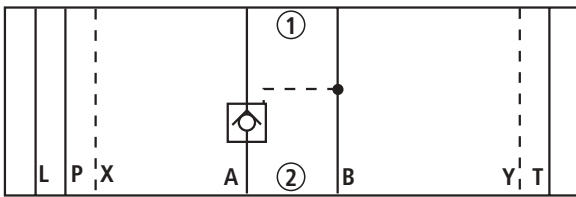


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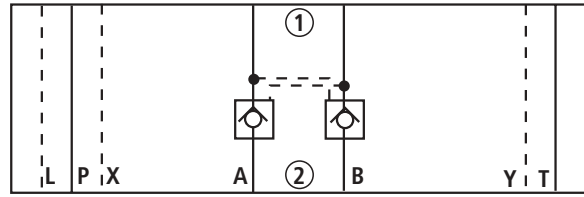
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Symbols (1) = valve side, (2) = subplate side

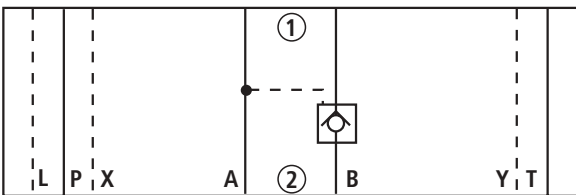
Type Z2S 22 A...



Type Z2S 22 -...



Type Z2S 22 B...



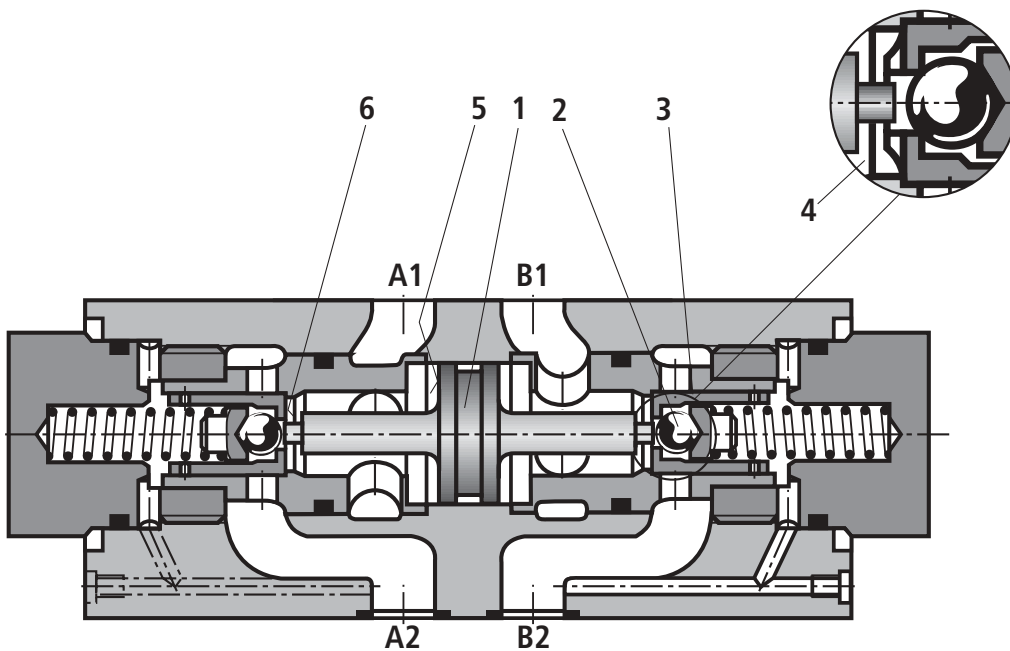
Function, section, circuit example

The type Z2S check valve is a hydraulic pilot operated check valve of sandwich plate design.

It is used for the leak-free closure of one or two actuator connections, also for longer periods of time.

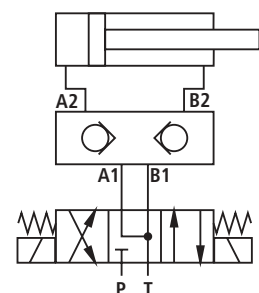
Free flow occurs from A1 to A2 or B1 to, while flow in the opposite direction is blocked.

If there is a flow through the valve in direction of A1 to A2 then the spool (1) is activated and is moved to the right, thereby opening the ball poppet valve (2) which in turn lifts the poppet (3) off its seat. In order to ensure correct closure of the valve poppets, the actuator ports of the directional valve must be connected to tank when it is in its centre position (see circuit example).



- 4 Area A_1
- 5 Area A_2
- 6 Area A_3

Circuit example:



Technical data (for applications outside these parameters, please consult us!)

General

Installation		Optional
Pressure fluid temperature range	°C	– 30 ... + 80 (NBR seals) – 20 ... + 80 (FKM seals)
Weight	kg	Approx. 12

Hydraulic

Maximum operating pressure	bar	315
Maximum flow	L/min	450
Flow direction		See symbols
Cracking pressure in the free flow direction		See characteristic curves
Area ratio		$A_1/A_2 = 1/13,6$; $A_3/A_2 = 1/2,8$; (see sectional drawing on page 2)
Pressure fluid		Mineral oil (HL, HLP) to DIN 51 524; ¹⁾ Fast bio-degradable pressure fluids to VDMA 24 568 (also see RE 90 221); HETG (rape seed oil) ¹⁾ ; HEPG (polyglycole) ²⁾ ; HEES (synthetic ester) ²⁾ ; other pressure fluids on request
Viscosity range	mm ² /s	28 to 500
Cleanliness class to ISO code		Maximum permissible degree of contamination of the pressure fluid is to ISO 4406 (C) class 20/18/15 ³⁾

¹⁾ Suitable for NBR **and** FKM seals

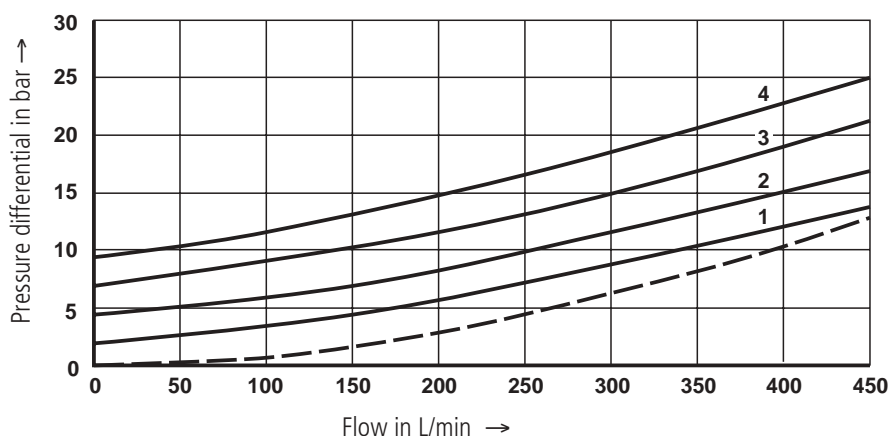
²⁾ **Only** suitable for FKM seals

³⁾ The cleanliness class stated for the components must be adhered too in hydraulic systems. Effective filtration prevents faults from occurring and at the same time increases the component service life.

For the selection of filters see catalogue sheets RE 50 070, RE 50 076 and RE 50 081.

Characteristic curves (measured with HLP46, $\vartheta_{oil} = 40 \text{ °C} \pm 5 \text{ °C}$)

Δp - qv -characteristic curves



— A1 to A2

— B1 to B2

Cracking pressure:

1 3 bar

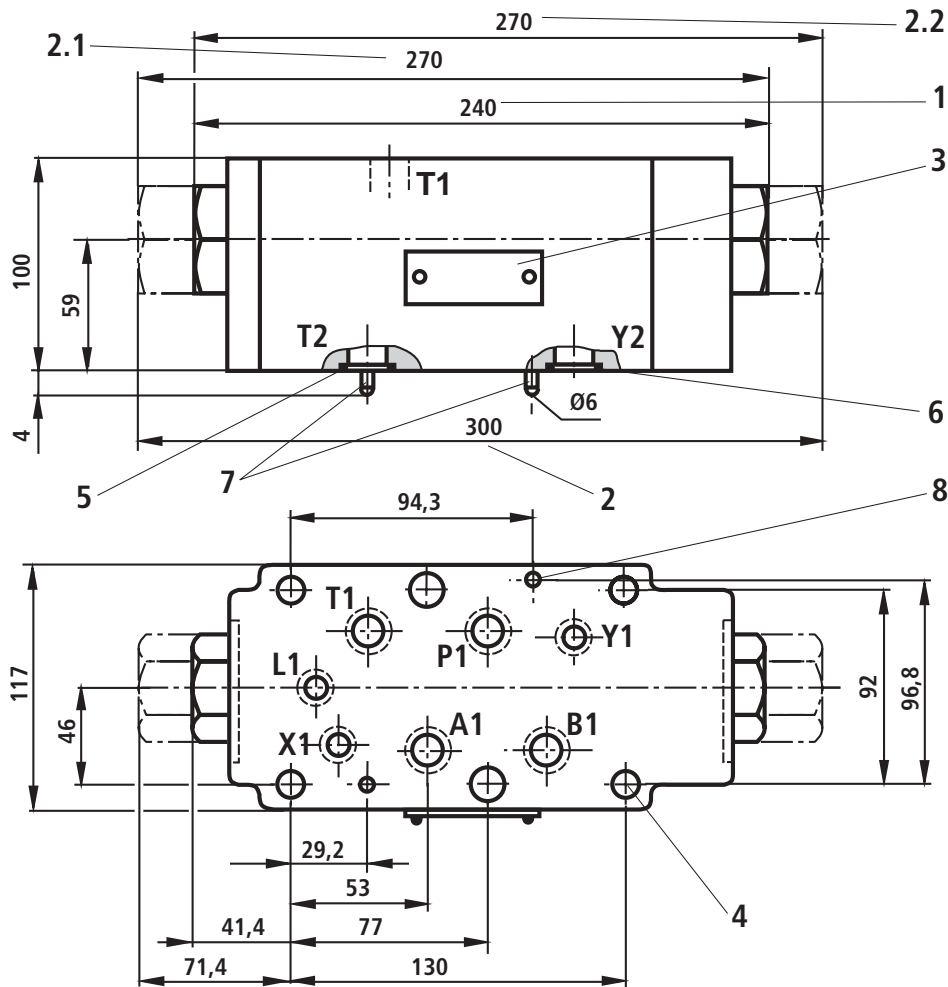
2 5 bar

3 7.5 bar

4 10 bar

— B2 to A1

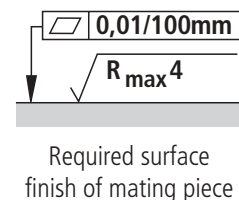
— B2 to B1



- 1 Valve with 3 or 5 bar cracking pressure and leak-free closure in ports A and/or B
- 2 Valve with 7.5 or 10 bar cracking pressure and leak-free closure in ports A and B
- 2.1 Valve with 7.5 or 10 bar cracking pressure and leak-free closure in port A
- 2.2 Valve with 7.5 or 10 bar cracking pressure and leak-free closure in port B
- 3 Name plate
- 4 6 through drillings for valve fixing screws
- 5 R-rings 27.8 x 2.6 x 3 for ports A2, B2, P2, T2

- 6 R-rings 19 x 3 x 3 for ports X2, Y2, L2
- 7 Locating pins
- 8 Holes for locating pins

Valve fixing screws
 M12 DIN 912-10.9,
 Tightening torque $M_A = 130 \text{ Nm}$,
 must be ordered separately.



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