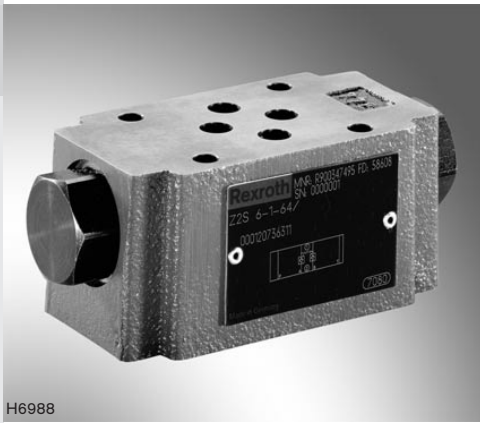
Rexroth
Bosch Group

Check valve, pilot operated

RE 21548/07.05 1/4
Replaces: 02.03

Type Z2S



H6988

Size 6
Component series 6X
Maximum operating pressure 315 bar
Maximum flow 60 l/min

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Features

- Sandwich plate valve
- Position of ports to DIN 24340 form A (**without** locating bore) (standard)
- Position of ports to ISO 4401-03-02-0-94 (**with** locating bore)
- For the leak-free closure of one or two actuator ports, optional
- For use in vertical stacking assemblies
- 3 different cracking pressures, optional

Information on available spare parts:
www.boschrexroth.com/spc

Ordering code

Z2S	6		–6X/		*

Sandwich plate check valve

Size 6 = **6**

Leak-free closure in channel A and B = **–**
Leak-free closure in channel A = **A**
Leak-free closure in channel B = **B**

Cracking pressure
1.5 bar = **1**
3 bar = **2**
7 bar = **3**

Component series 60 to 69 = **6X**
(60 to 69: unchanged installation and connection dimensions)

Further details in clear text

No code = **Without** locating bore
/60 [1] **=** **With** locating bore
/62 = **With** locating bore and locating pin ISO 8752-3x8-St

Seal material
No code = NBR seals
V = FKM seals
⚠ Caution!
Observe compatibility of seals with hydraulic fluid used!

[1] Locating pin ISO 8752-3x8-St, material no. **R900005694** (separate order)

Standard types

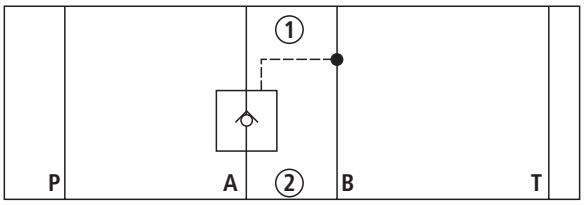
Type	Material number
Z2S 6 -1-6X/	R900347495
Z2S 6 -2-6X/	R900347496
Z2S 6 -3-6X/	R900347497

Type	Material number
Z2S 6 A1-6X/	R900347498
Z2S 6 B1-6X/	R900347501

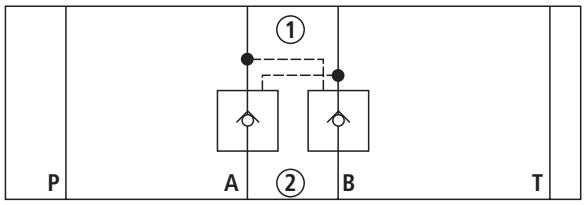
Further standard types and components can be found in the EPS (standard price list).

Symbols (① = component side, ② = plate side)

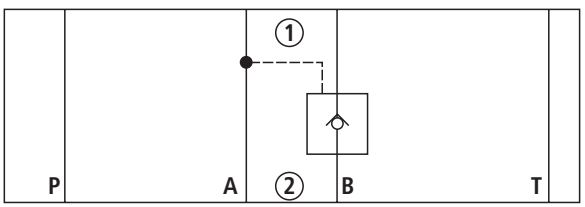
Type Z2S 6 A…



Type Z2S 6 –…



Type Z2S 6 B…



Function, section, circuit example

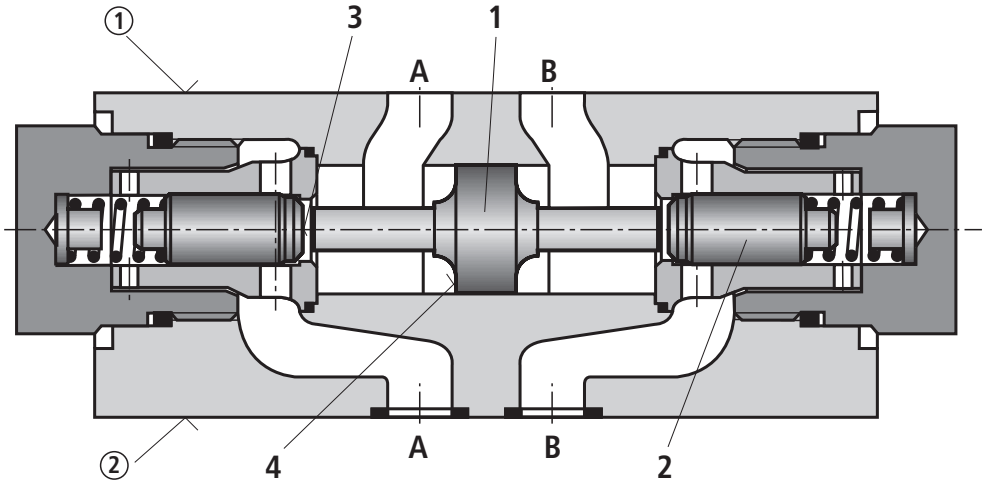
Isolator valve type Z2S is a pilot operated check valve of sandwich plate design.

It is used for the leak-free closure of one or two actuator ports, even during longer periods of standstill.

The oil can freely flow from A1 to A2 or B1 to B2, whereas in the opposite direction the flow is blocked.

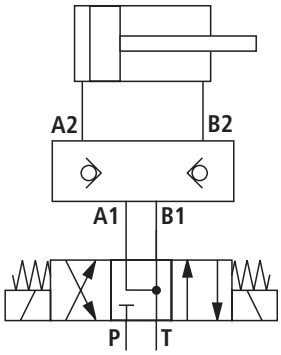
When fluid flows through the valve from A1 to A2 or B1 to B2, spool (1) is pressurised and therefore shifted to the right or to the left, which causes poppet (2) to be pushed off its seat. Hydraulic fluid can now flow from B2 to B1 or from A2 to A1.

To allow reliable closing of poppets (2), the actuator ports of the directional valve must be unloaded to tank in the central position (see circuit example).



Type Z2S 6 –…

1 Spool
2 Poppet
3 Area A_1
4 Area A_2



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

General		
Weight	kg	approx. 0.8
Installation orientation		Optional
Ambient temperature range	°C	–30 to +80 (NBR seals) –20 to +80 (FKM seals)

Hydraulic		
Maximum operating pressure	bar	315
Cracking pressure in free direction		See characteristic curves on page 4
Maximum flow	l/min	60
Direction of flow		See Symbols on page 2
Hydraulic fluid		Mineral oil (HL, HLP) to DIN 51524 [1]; fast bio-degradable hydraulic fluids to VDMA 24568 (see also RE 90221); HETG (rape seed oil) [1]; HEPG (polyglycols) [2]; HEES (synthetic esters) [2]; other hydraulic fluids on enquiry
Hydraulic fluid temperature range	°C	– 30 to + 80 (NBR seals) – 20 to + 80 (FKM seals)
Viscosity range	mm^2/s	2.8 to 500
Max. permissible degree of contamination of the hydraulic fluid - cleanliness class to ISO 4406 (c)		Class 20/18/15 [3]
Area ratio		A_1/A_2 = 1/3 (see sectional drawing above)

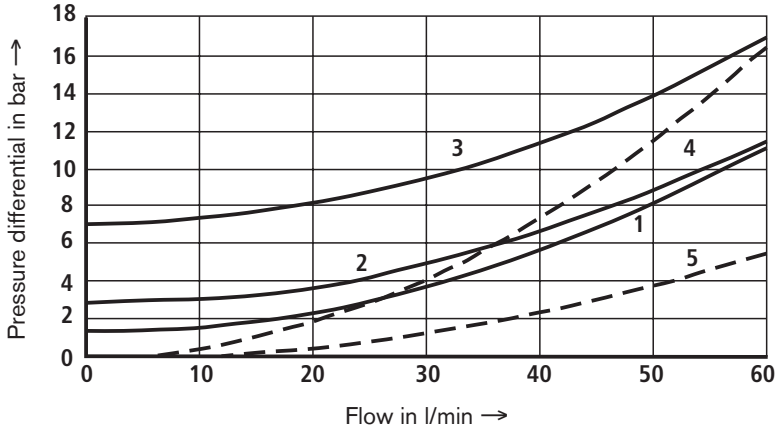
[1] Suitable for NBR and FKM seals

[2] Suitable only for FKM seals

[3] The cleanliness classes specified for components must be adhered to in hydraulic systems. Effective filtration prevents malfunction and, at the same time, prolongs the service life of components.
For the selection of filters, see data sheets RE 50070, RE 50076, RE 50081, RE 50086 and RE 50088.

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

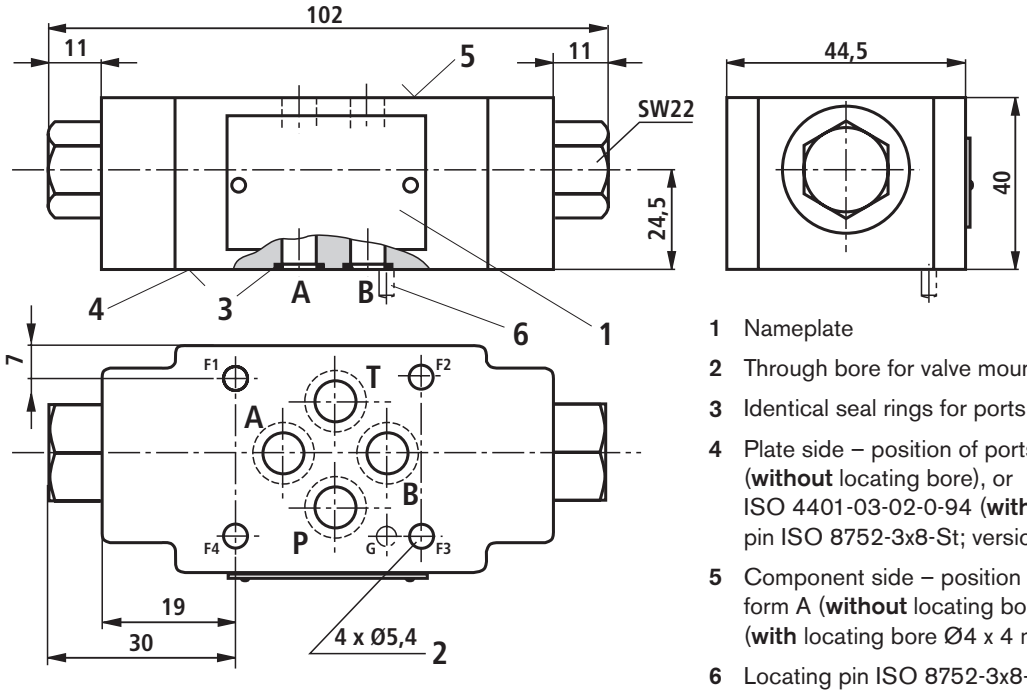
Δp-q_V characteristic curves



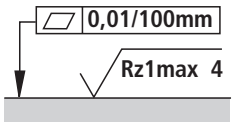
A1 → A2; B1 → B2
A2 → A1; B2 → B1

Cracking pressure:
1 1.5 bar
2 3 bar
3 7 bar
4 Across check valve insert
5 Free flow (without check valve insert), version "A" and "B"

Unit dimensions (nominal dimensions in mm)



1 Nameplate
2 Through bore for valve mounting
3 Identical seal rings for ports A, B, P, T
4 Plate side – position of ports to DIN 24340 form A (**without** locating bore), or ISO 4401-03-02-0-94 (**with** locating bore for locating pin ISO 8752-3x8-St; versions "/60" and "/62")
5 Component side – position of ports to DIN 24340 form A (**without** locating bore), or ISO 4401-03-02-0-94 (**with** locating bore Ø4 x 4 mm deep)
6 Locating pin ISO 8752-3x8-St; version "/62" only



Required surface quality of mating part

Valve fixing screws (separate order)

4 socket head cap screws ISO 4762 - M5 - 10.9
(friction coefficient $\mu_{total} = 0.14$);
tightening torque $M_T = 8.1$ Nm ± 10%
(adapt in the case of changed surfaces)

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