

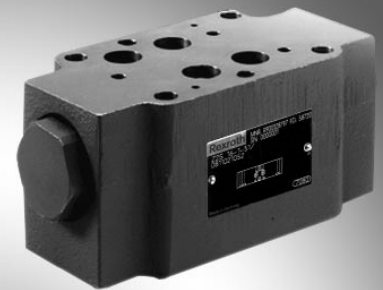
Check valve, pilot operated

RE 21558/08.05
Replaces: 02.03

1/6

Type Z2S

Size 16
Component series 5X
Maximum operating pressure 315 bar
Maximum flow 300 l/min



K4340/4

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

Ordering code

Z2S	16			-5X/	*
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Sandwich plate check valve

Size 16 = 16

Leak-free closure

In channel A and B = -

In channel A = A

In channel B = B

Cracking pressure

3 bar = 1

5 bar = 2

7.5 bar = 3

10 bar = 4

Further details in clear text

Seal material

no code = NBR seals

V = FKM seals

⚠ Caution!

Observe compatibility of seal material with hydraulic fluid used!

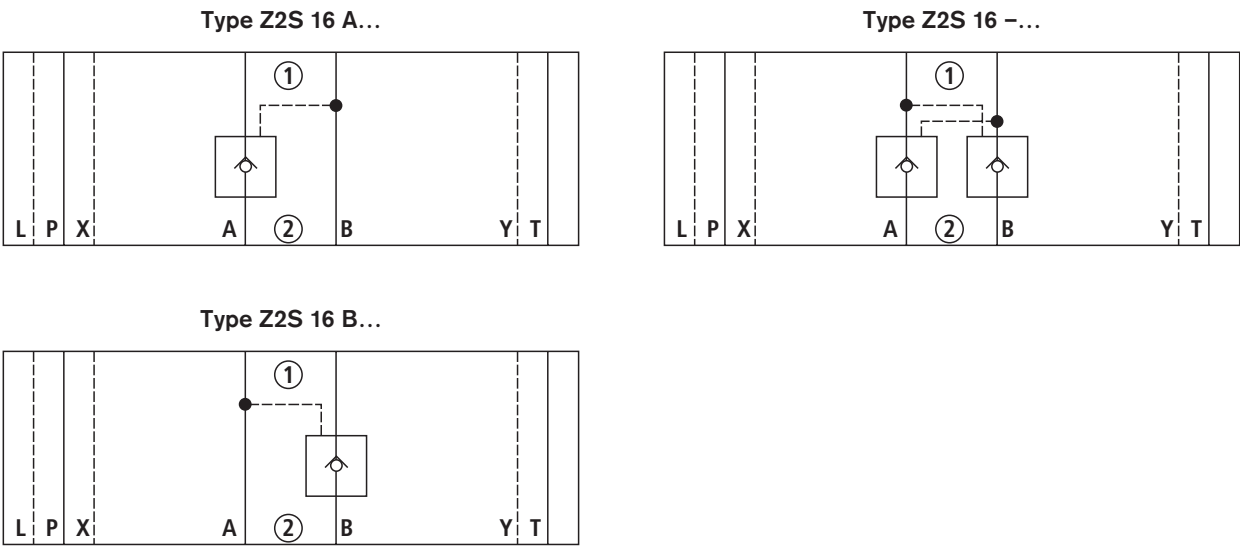
5X = Component series 50 to 59
(50 to 59: unchanged installation and connection dimensions)

Standard types

Type	Material number
Z2S 16 -1-5X/	R900328797
Z2S 16 A1-5X/	R900328798
Z2S 16 B1-5X/	R900328799

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

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



Function, section, circuit example

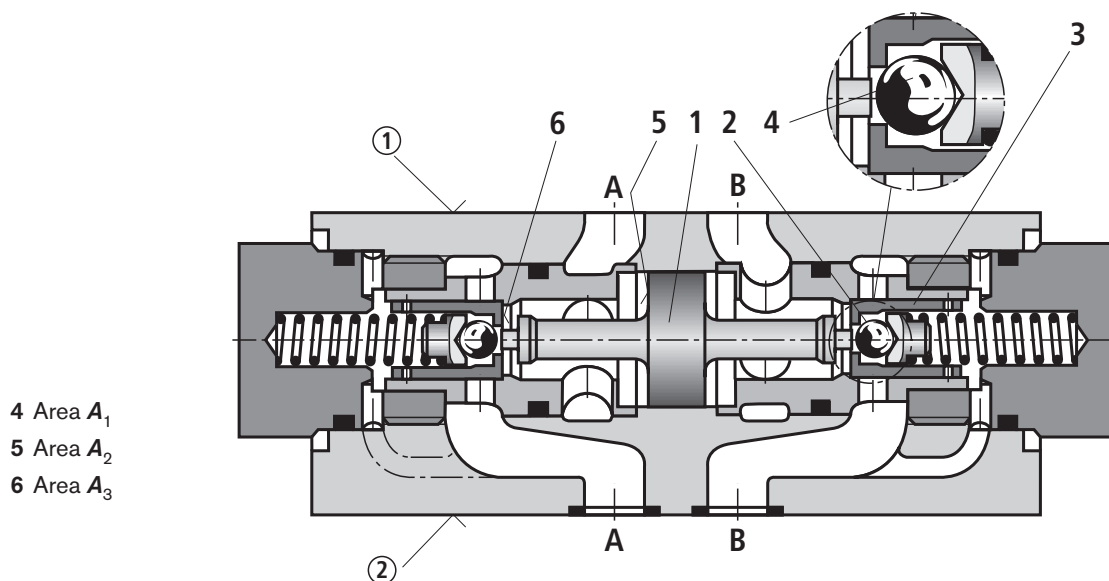
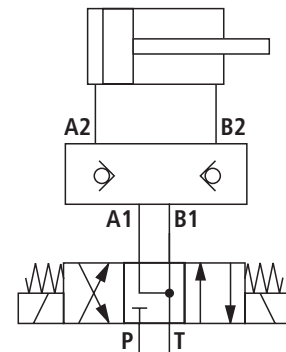
Isolator valves of type Z2S are pilot operated check valves of sandwich plate design.

They are used for the leak-free closure of one or two actuator ports, even over longer periods of standstill.

The fluid can freely flow in the direction 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, spool (1) is pressurised and shifted to the right. This causes ball seat valve (2) to open and then pushes poppet (3) off its seat.

To ensure safe closing of the valve poppets, the actuator ports of the directional valve must be unloaded to tank when the directional valve is in the central position (see circuit example).



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

General		
Weight	kg	approx. 6.5
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 below
Maximum flow	l/min	300
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		$A_1/A_2 = 1/11.8$; $A_3/A_2 = 1/2.8$ (see sectional drawing, page 2)

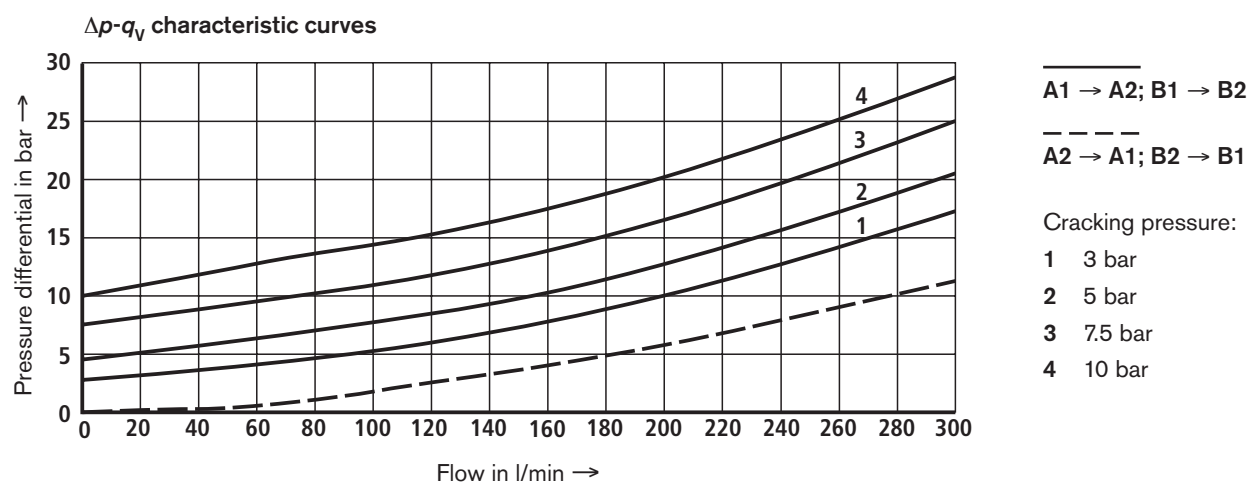
¹⁾ Suitable for NBR and FKM seals

²⁾ Suitable only for FKM seals

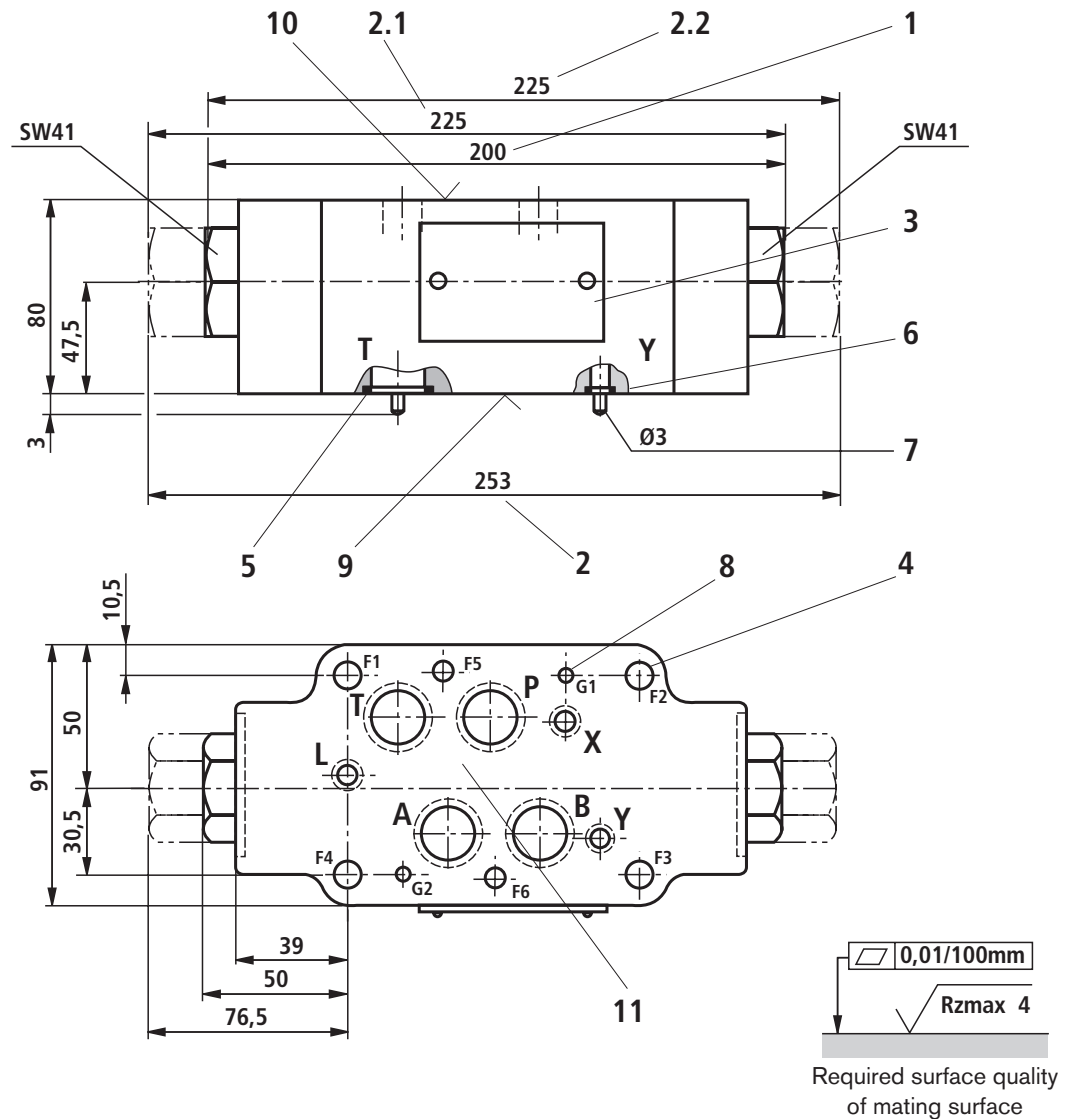
³⁾ The cleanliness classes specified for components must be adhered to in hydraulic systems. Effective filtration prevents

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, $\vartheta_{oil} = 40\text{ °C} \pm 5\text{ °C}$)

Unit dimensions (nominal dimensions in mm)



- 1 Valve with cracking pressure 3 or 5 bar, leak-free closure in channel A and/or B
- 2 Valve with cracking pressure 7.5 or 10 bar, leak-free closure in channel A and B
- 2.1 Valve with cracking pressure 7.5 or 10 bar, leak-free closure in channel A
- 2.2 Valve with cracking pressure 7.5 or 10 bar, leak-free closure in channel B
- 3 Nameplate
- 4 6 through-bores for valve fixing
 - F1, F2, F3, F4: Ø11 mm
 - F5, F6: Ø9 mm
- 5 Identical seal rings for ports A, B, P, T
- 6 Identical seal rings for ports X, Y, L
- 7 Locating pins

- 8 Locating bores
- 9 Plate side
- 10 Component side
- 11 Position of ports to ISO 4401-07-06-0-94

Valve fixing screws (separate order)

4 socket head cap screws ISO 4762 - M10 - 10.9

(friction coefficient $\mu_{\text{total}} = 0.14$);
tightening torque $M_T = 75 \text{ Nm}$
(please adjust in the case of changed surfaces)
and

2 socket head cap screws ISO 4762 - M6 - 10.9

(friction coefficient $\mu_{\text{total}} = 0.14$);
tightening torque $M_T = 15.5 \text{ Nm}$
(please adjust in the case of changed surfaces)

Notes

Notes

Bosch Rexroth AG
Hydraulics
Zum Eisengießer 1
97816 Lohr am Main, Germany
Phone +49 (0) 93 52 / 18-0
Fax +49 (0) 93 52 / 18-23 58
documentation@boschrexroth.de
www.boschrexroth.de

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Notes
