

Electric Drives
and Controls

Hydraulics

Linear Motion and
Assembly Technologies

Pneumatics

Service

Rexroth
Bosch Group

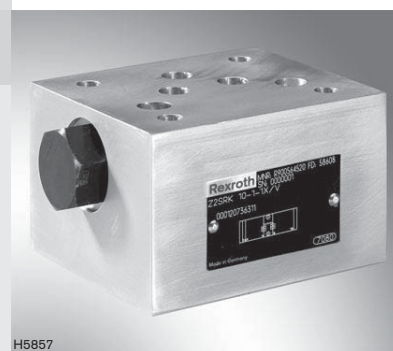
Check valve, pilot operated

RE 21549/07.05
Replaces: 05.02

1/4

Type Z2SRK

Size 10
Component series 1X
Maximum operating pressure 210 bar
Maximum flow 80 l/min



H5857

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Features

- Sandwich plate valve
- Position of ports to ISO 4401-05-04-0-94
- For the leak-free closure of two actuator ports

Ordering code

Z2SRK		10	1	1X	V	*
Check valve, sandwich plate						Further details in clear text
Size 10	= 10					Seal material
Cracking pressure 1.5 bar	= 1					FKM seals
Component series 10 to 19 (10 to 19: unchanged installation and connection dimensions)	= 1X					(other seals on enquiry)
					V =	Caution! Observe compatibility of seals with hydraulic fluid used!

Function, section, circuit example, symbol (① = component side, ② = plate side)

Isolator valve type Z2SRK is a pilot operated check valve of sandwich plate design.

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

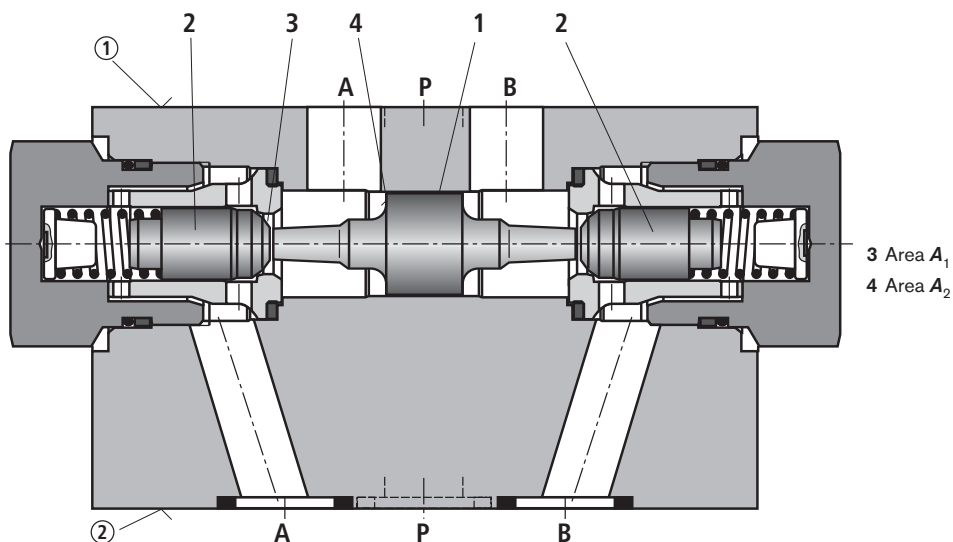
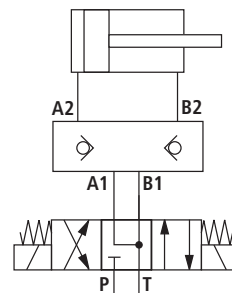
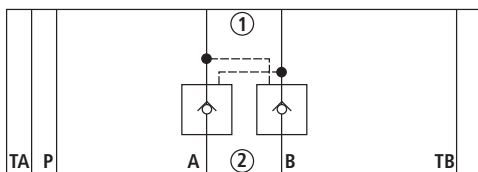
The oil can freely flow from A1 to A2 or B1 to B2, whereas in the opposite direction the flow is blocked.

When fluid flows through the valve from A1 to A2 or B1 to B2,

spool (1) is pressurised and therefore shifted to the left or to the right, 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 safe closing of the valve poppets, the actuator ports of the directional valve must be unloaded to tank in the central position (see circuit example).



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

General

Weight	kg	approx. 3,2
Installation orientation		Optional
Ambient temperature range	°C	-20 to +80

Hydraulic

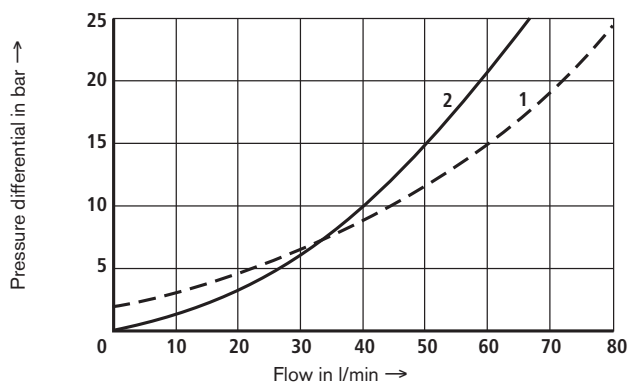
Maximum operating pressure	bar	210
Cracking pressure in direction of free flow	bar	See characteristic curves below
Maximum flow	l/min	80
Direction of flow		See Symbol on page 2
Hydraulic fluid		Mineral oil (HL, HLP) to DIN 51524; fast bio-degradable hydraulic fluids to VDMA 24568 (see also RE 90221); HETG (rape seed oil); HEPG (polyglycols); HEES (synthetic esters); other hydraulic fluids on enquiry
Hydraulic fluid temperature range	°C	-20 to +80
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 ¹⁾
Area ratio		$A_1/A_2 = 1/2.86$ (see sectional drawing on page 2)

¹⁾ The cleanliness class 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.

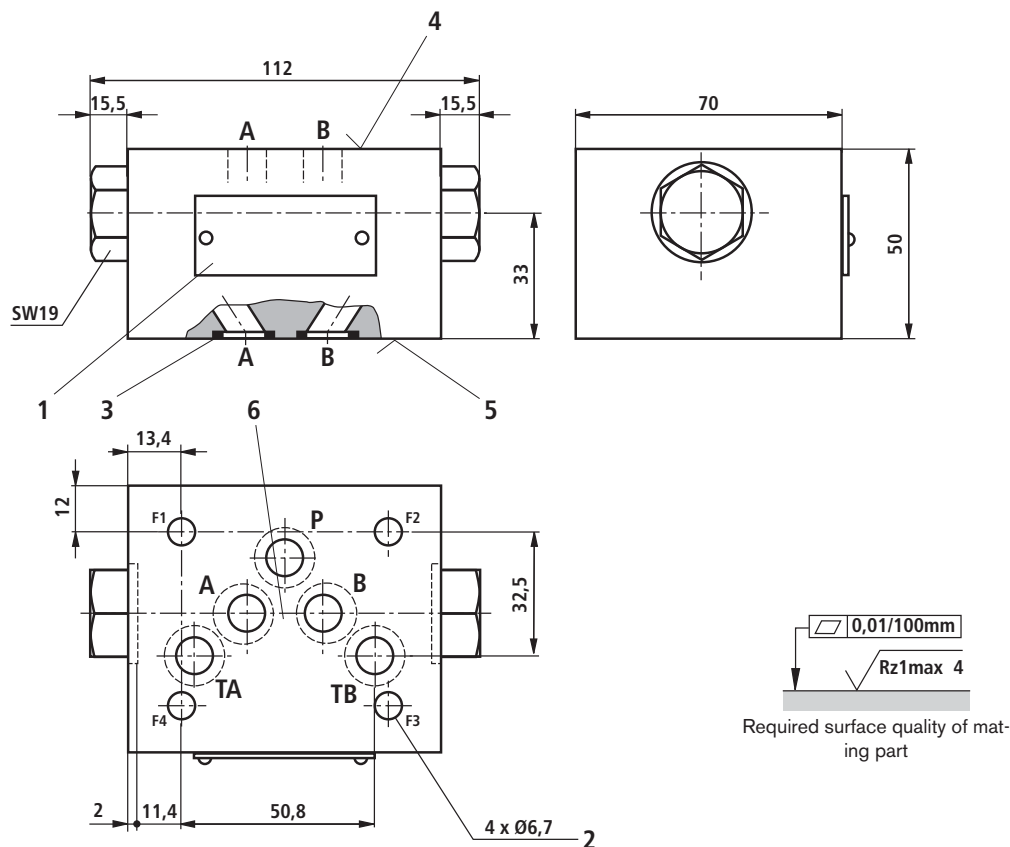
Characteristic curves (measured with HLP46, $\vartheta_{oil} = 40 \text{ °C} \pm 5 \text{ °C}$)

Δp - q_v characteristic curves



- 1 Cracking pressure 1.5 bar
- 2 Across check valve insert (open)

Unit dimensions (nominal dimensions in mm)



- 1 Nameplate
- 2 Valve fixing bores
- 3 Identical seal rings for ports A, B, P, T
- 4 Component side
- 5 Plate side
- 6 Position of ports to ISO 4401-05-04-0-94;
deviating from standard: Port TB ($\varnothing \triangleq \varnothing TA$)

Valve fixing screws (separate order)

4 socket head cap screws ISO 4762 - M6 - 10.9

(friction coefficient $\mu_{\text{total}} = 0.14$);

tightening torque $M_T = 15.5 \text{ Nm} \pm 10\%$

(please adapt in the case of changed surfaces)

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