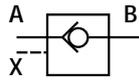
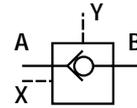


Symbols

Version SV



Version SL (with drain port)



Function, section

The SV and SL valves are hydraulic pilot operated check valves of poppet type design which may be opened to permit flow in the reverse direction.

These valves are used for the isolation of operating circuits which are under pressure, i.e. as a safe guard against the lowering of a load when a line break occurs or against creeping movements of hydraulically locked actuators.

The valve basically comprises of the housing (1), the poppet (2), a compression spring (3) and the control spool (4).

Type SV... (without drain port)

The valve permits free-flow from A to B. In the reverse direction the poppet (2) is held firmly on to its seat in addition to the spring force by the system pressure.

By applying pressure to pilot connection X, the control spool (4) is moved to the right. This lifts poppet (2) off its seat, now the valve also permits free-flow from B to A.

In order to ensure that the valve opens due to pressure applied to the pilot piston (4), a certain minimum pilot pressure is required, (see page 3)

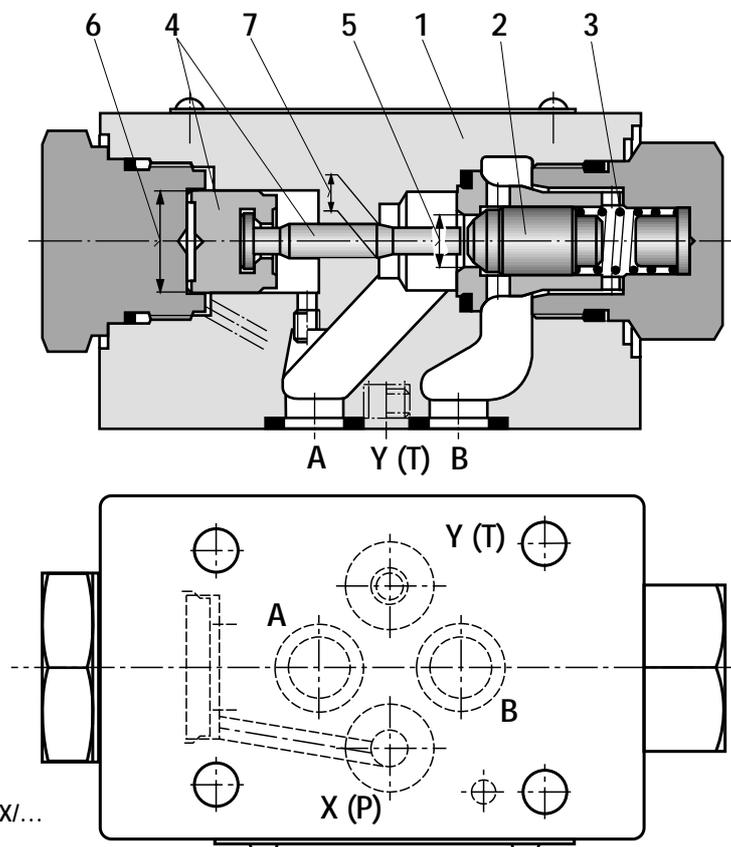
The drain port Y is plugged.

Type SL... (with drain port)

In principle, the function of this valve corresponds to that of the type SV.

The difference lies in the additional drain port Y. Here, the annular area of the control spool (4) is separated from the port A. Pressure present in port A acts only on area A_3 (7) of the control spool (4).

- 5 Area A_1
- 6 Area A_2
- 7 Area A_3



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

General

Installation		Optional
Ambient temperature range	°C	- 30 ... + 80 (NBR seals)
	°C	- 20 ... + 80 (FKM seals)
Weight	kg	Approx. 0.8

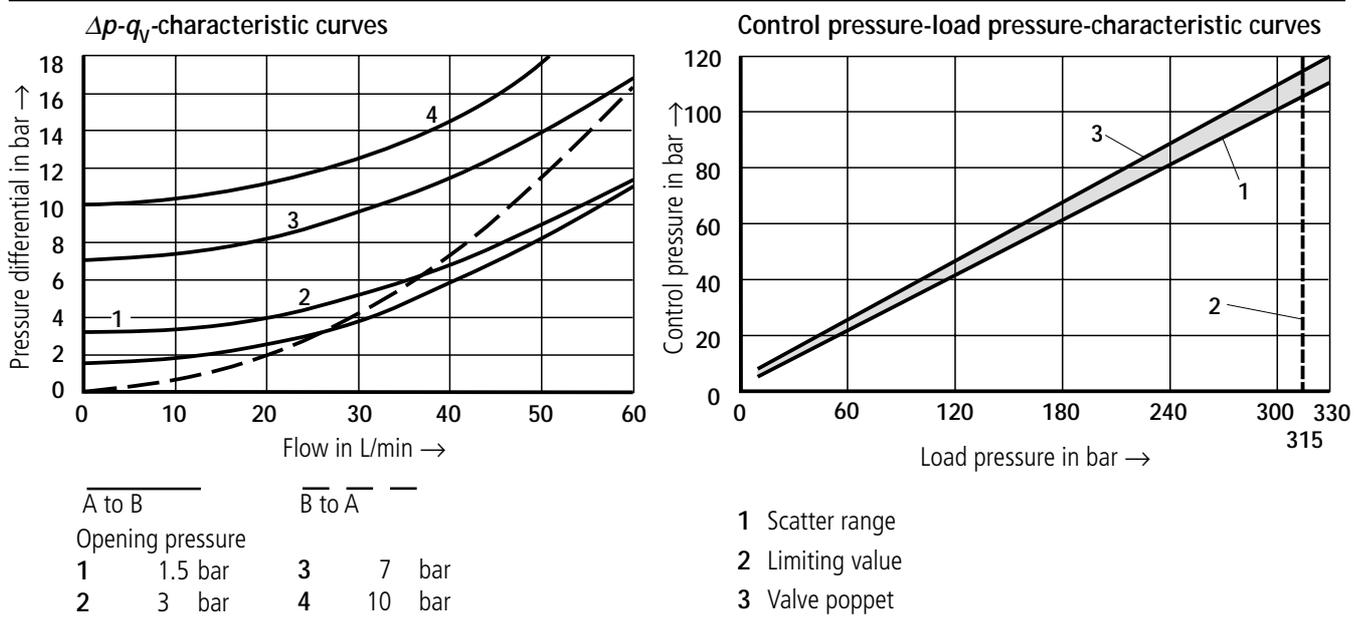
Hydraulic

Maximum operating pressure	bar	315	
Maximum flow	L/min	60	
Direction of flow		Free-flow from A to B, from B to A when pilot operated	
Control pressure	bar	5 to 315	
Control volume	Port X	cm ³	0.68
	Port Y (only type SL)	cm ³	0.58
Control areas (areas according to sectional drawing, see page 2)	Area A ₁	cm ²	0.42
	Area A ₂	cm ²	1.33
	Area A ₃	cm ²	0.19
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 (polyglycols) ²⁾ ; HEES (synthetic ester) ²⁾ ; other pressure fluids on request	
Pressure fluid temperature range	°C	- 30 ... + 80 (NBR seals)	
	°C	- 20 ... + 80 (FKM seals)	
Viscosity range	mm ² /s	2.8 ... 500	
Degree of contamination		Maximum permissible degree of contamination of the pressure fluid is to NAS 1638 class 9. We therefore recommend a filter with a minimum retention rate of $\beta_{10} \geq 75$.	

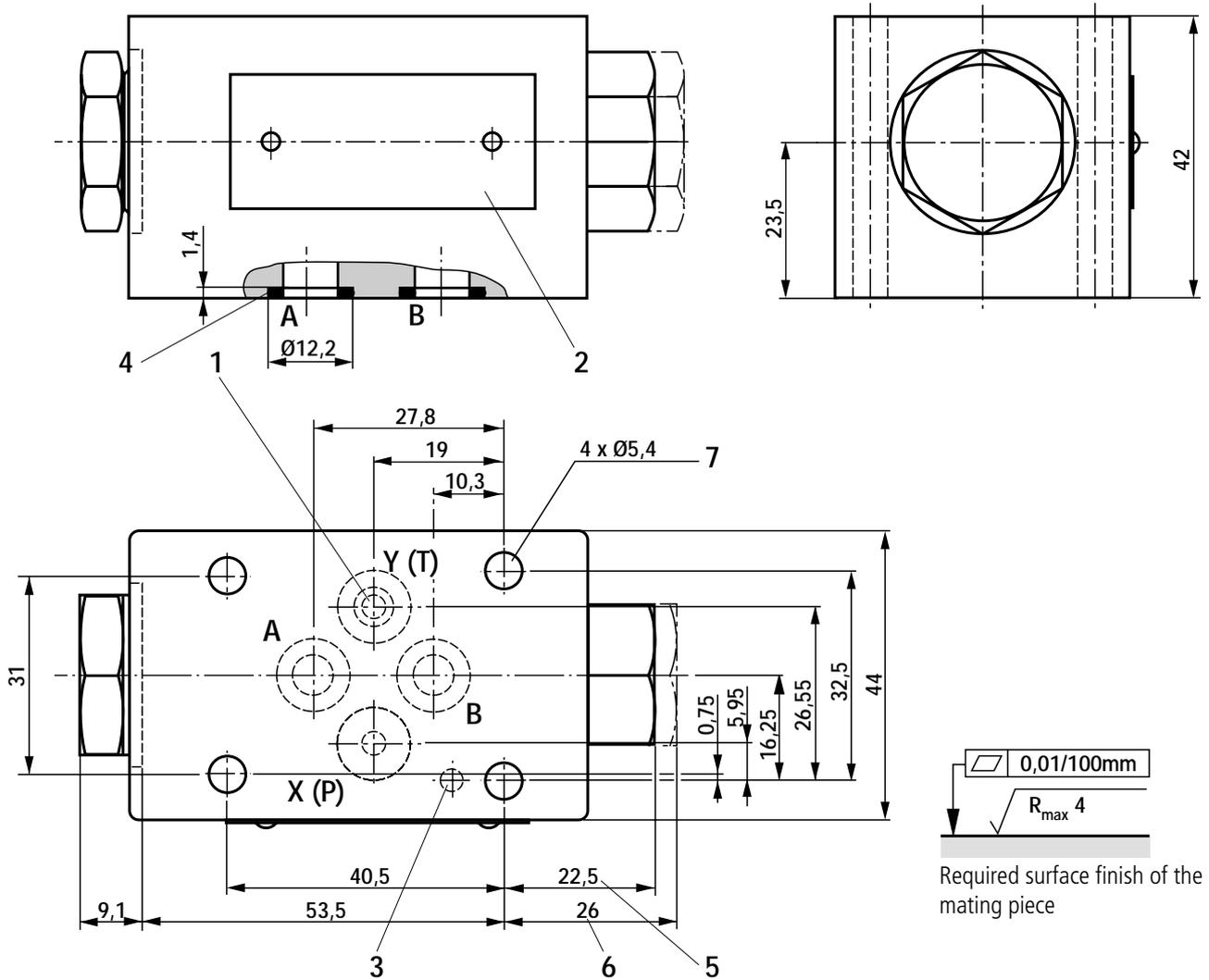
¹⁾ Suitable for NBR **and** FKM seals

²⁾ **Only** suitable for FKM seals

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



Unit dimensions (dimensions in mm)



1 Port Y with valve type "SL"
(with valve type "SV" this port
is plugged)

2 Name plate

3 Locating pin hole 3 x 8 DIN EN ISO 8752
Material No. 00005694 (separate order)

4 Same seal rings
for ports A, B, X, Y

5 Dimension for valve with
opening pressure types "1", "2", "3"

6 Dimension for valve with
opening pressure type "4"

7 Through-hole for
valve fixing screws

Subplates

G 341/01 (G 1/4)

G 342/01 (G 3/8)

G 502/01 (G 1/2)

Subplates to catalogue sheet RE 45 052 and

Valve fixing screws

M5 x 50 DIN 912-10.9; $M_A = 8.9$ Nm
must be ordered separately.

The data specified above only serve to describe the product. No statements concerning a certain condition or suitability for a certain application can be derived from our information. It must be remembered that our products are subject to a natural process of wear and ageing.