

Flow control valves type SF, SD, SK, and SU

The SF, SD, SK, and SU type flow control valves are available in 2- and 3-way flow versions. They are utilized to smoothly adjust the consumer flow in hydraulic circuits. With type SU it is possible to choose between two previously selected flows.

The amount of flow is accurately maintained even if the system pressure or viscosity varies.

Additional control functions enable adaptation to special application requirements e.g. pressure limiting valve and idle circulation valve. Both can be integrated in the valve body or externally via a Z-port.

The 2-way flow control valves can work in any flow direction when ordered with a by-pass check valve and bridge circuit.

These flow control valves may be used in a wide field of application due to the various actuation options available.



Nomenclature: 2-way flow control valve
3-way flow control valve

Design: Individual valves for pipe mounting
Manifold mounting

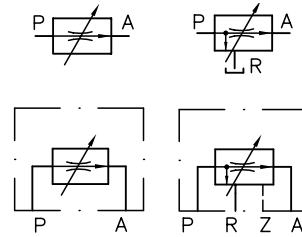
Adjustability: Mechanical
• Adjusting knob
• Roller
• Set screw
Solenoid (switching between two constant consumer flows)

P_{max} : 315 bar

Q_{max} : 0.3 ... 130 lpm

Basic types and general parameters

Basic type and size		Flow	Tapped ports ²⁾	Symbol
2-way	3-way	Q_{max} (lpm) ¹⁾	(BSPP)	
S. 2-3	S. 3-3	0.3 ... 60	G 1/2	Pipe mounting
S. 2-4	S. 3-4	0.6 ... 90	G 3/4	
S. 2-5	S. 3-5	1.0 ... 130	G 1	Manifold mounting
SU 2-3	SU 3-3	0 ... 50	G 1/2	



Actuations

Basic types	Brief description	Symbol
SF ..	Set screw a/f 10, adjustment travel 5 mm	
SD ..	Adjusting knob, adjustment travel 3.8 turns	
SK..	Roller actuation	
SKR ..	Unshielded version (SK) Shielded version (SKR) Actuation travel 15.5 ... 17 mm Actuation force 30 ... 70 N	
SU	Solenoid 12V DC, 24V DC, 230V AC 50/60 Hz	

Available orifices

Q_{max} (lpm)	3	15	30	36	50	60	70	90	130
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1) Q_{max} can be selected, see "Available orifices"
2) With version for pipe mounting

Additional versions**2-way flow control valve**

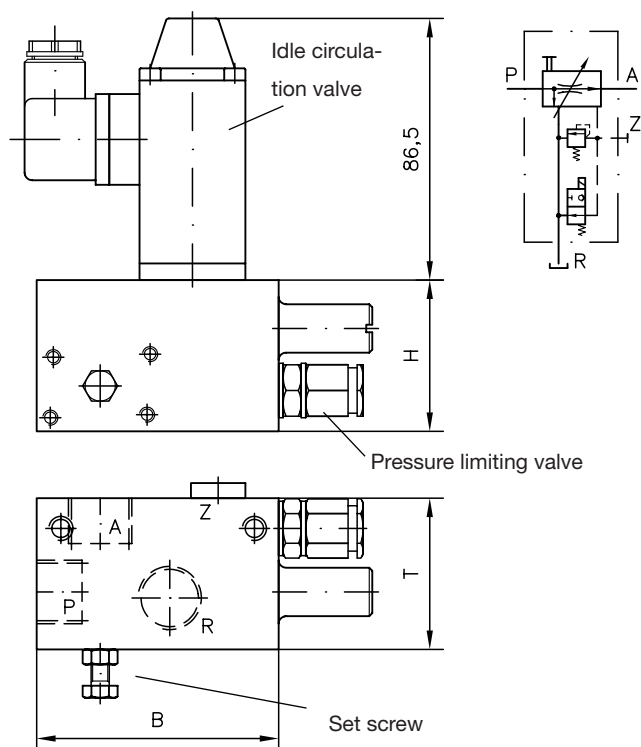
- Flow control valve with by-pass check valve
- Version for arbitrary flow direction with bridge circuit utilizing check valves

Order examples**SF 3-3/15 S - WN1F - G12 - 120**

3-way flow control valve adjustable orifice (by means of a set screw), size 3, metering orifice for $Q_{max} = 15$ lpm, version for pipe mounting with pressure limiting valve (coding S, pressure setting 120 bar) and idle circulation valve (coding WN1F)

Dimensions**Version for pipe mounting**

(see order examples)

**3-way flow control valve**

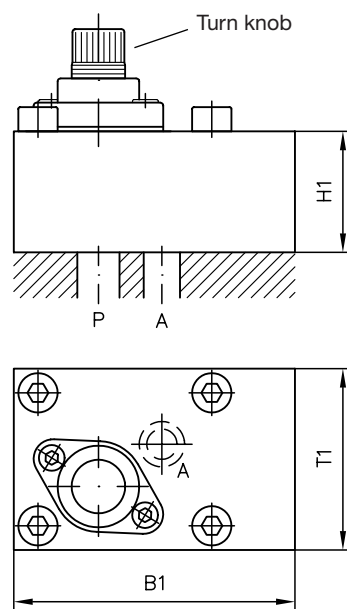
- Version with pressure limiting valve (only available with version for pipe mounting)
- Flow control valve with pressure limiting valve and idle circulation valve (only available with version for pipe mounting)

SD 2-3/50 P

2-way flow control valve adjustable with adjusting knob, size 3, metering orifice for $Q_{max} = 50$ lpm, manifold mounted valve (coding P)

Manifold mounting valve

(see order examples)



All dimensions are in mm, and subject to change without notice!

Basic type	H	H1	B	B1	T	T1	m (kg) dep. on actuation
S. 2-3	50	40	80	60	50	60	1.4 ... 2.1
S. 2-4	60	50	88	70	60	70	2
S. 2-5	70	50	100	80	70	80	3.1
S. 3-3	50	40	80	93	50	60	1.4 ... 2.1
S. 3-4	60	50	88	100	60	70	2.0 ... 2.6
S. 3-5	70	50	100	106	70	80	2.8 ... 3.7

Further information

- 2-way and 3-way flow control valves type S D 6233
- Drop rate braking valves type SB, SQ D 6920
- Prop. flow control valves type SE, SEH D 7557/1
- Plugs with LED etc. D 7163

For page and section of the devices additionally listed, see type index