

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

The flow control valves type SF, SD, SK and SU are available in 2 and 3-way versions. They enable continuous adjustment of the oil flow settings in oil-hydraulic systems. With the type SU, a choice can be made between two constant flows.

The flow rate is kept constant within a close tolerance regardless of the system pressure and viscosity of the hydraulic oil.

Additional control functions (pressure-limiting valve and idle circulation valve integrated in the valve or implemented externally via Z control port) enable adjustment to specific requirements.

The 2-way flow control valves are available with bypass check valve and bridge circuit for free selection of the flow direction.

The various actuation modes make these flow control valves suitable for a broad range of applications.

Features and benefits:

- Various actuation modes
- Also in combination with bypass check valves

Intended applications:

- Construction machinery
- Machine tools
- General hydraulic systems



Nomenclature:	2-way flow control valve 3-way flow control valve
Design:	Individual valves for pipe mounting Manifold mounting
Adjustment:	Mechanical <ul style="list-style-type: none"> ■ Adjusting knob ■ Roller actuation ■ Adjusting screw Solenoid (switching between two constant consumer flows)
p_{max}:	315 bar
Q_{max}:	0,3 ... 130 lpm

Design and order coding example

SF 3 - 3	/15	- S	- G24	- 120
Pressure setting [bar] of the pressure limiting valve (S) Solenoid voltage G 12, G 24, WG 110 and WG 230 Mounting and add. valve <ul style="list-style-type: none"> ■ Pipe connection (no coding) ■ Manifold mounting (P) ■ Valve with bypass check valve (R, PR) ■ Check valve bridge circuit (B) ■ Pressure-limiting valve (S) ■ Pressure-limiting and circulation valve (S-WN1F, S-WN1D) 				
Flow Flow steps via orifices Q_{\max} : 3, 6, 15, 36, 50, 60, 70, 90, 130 lpm				
Basic type, design, size <ul style="list-style-type: none"> ■ Type SD, with turn-knob ■ Type SD with adjusting knob actuation ■ Type SK with roller actuation (open version) ■ Type SU, solenoid actuation, switching between to fixed values (only size 3 and only with pipe mounting design) ■ Version as 2-way- (-2) and 3-way- (3) flow control valve ■ Size 3 to 5 ■ Size 3 to 5 				

Function

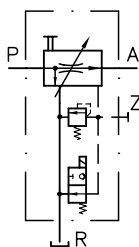
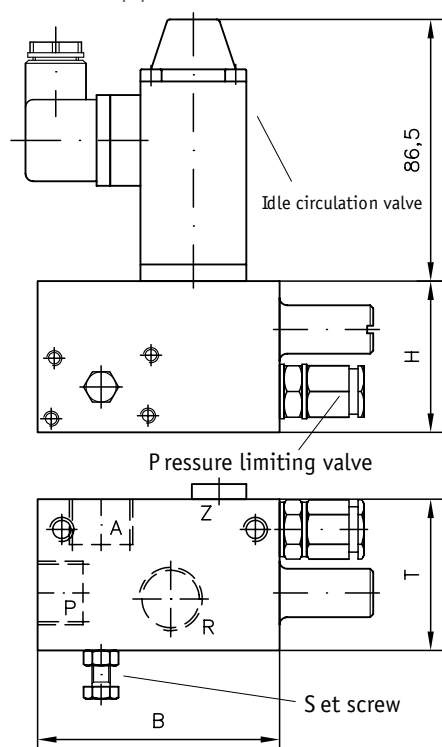
2-way	3-way
Pipe mounting	
2-way	3-way
Manifold mounting valve	

Actuations:

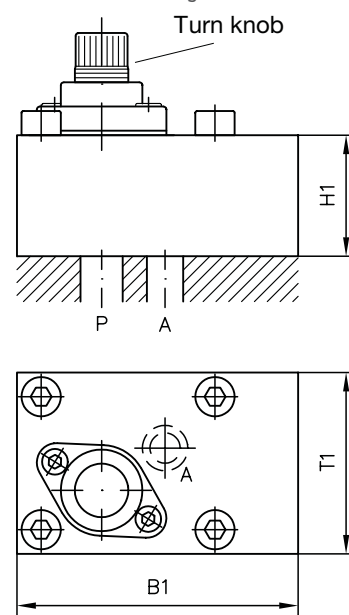
SF ...	SD ...	SK ...	SKR ...	SU
Set screw SW 10 adjustment travel 5 mm	Adjusting knob, adjustment travel 3.8 turns	Roller actuation Unshielded version (SK), Shielded version (SKR) Actuation travel 15,5 ... 17 mm, Actuation force 30 ... 70 N		Solenoid 12V DC, 24V DC, 110V AC, 230V AC

General parameters and dimensions

Version for pipe connection



Manifold mounting valve



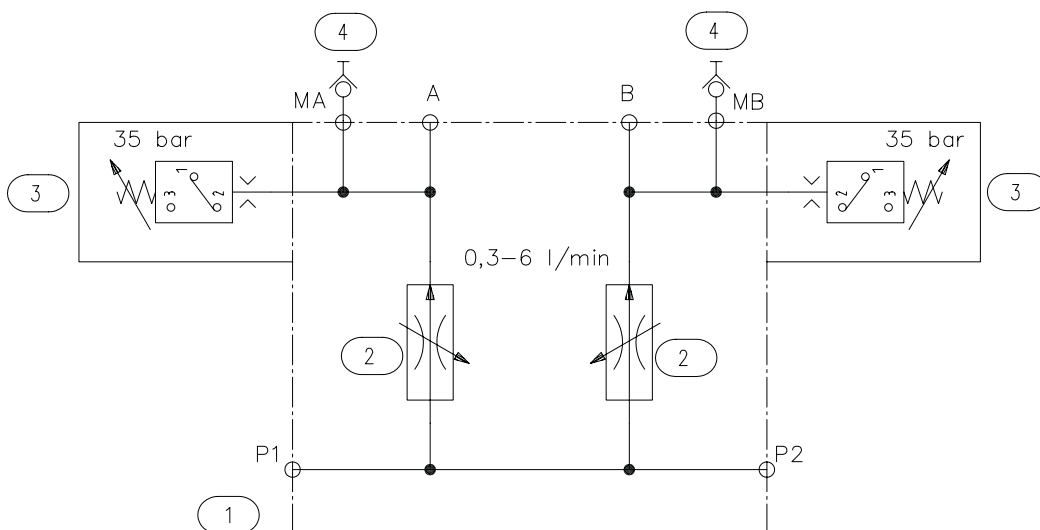
		Q_{max} [lpm] ¹⁾	Ports (BSPP) ²⁾	Dimensions [mm]						m [kg] ³⁾
2-way	3-way			H	H 1	B	B 1	T	T1	
S. 2-3		0,3 ... 60	G 1/2	50	40	80	60	50	60	1,4 ... 2,1
	S. 3-3			50	40	80	93	50	60	1,4 ... 2,1
S. 2-4		0,6 ... 90	G 3/4	60	50	88	70	60	70	2
	S. 3-4			60	50	88	100	60	70	2,0 ... 2,6
S. 2-5		1,0 ... 130	G 1	70	50	100	80	70	80	3,1
	S. 3-5			70	50	100	106	70	80	2,8 ... 3,7

1) Different Q_{max} available, see Design and order coding example: "Orifice steps"

2) For pipe connection versions

3) Depending on actuators

Item	Number	Description
4	2	SMK 20-G 1/4-PC
3	2	DG 364-35
2	2	SD 2-3/6P
1	1	20 201 H 00



Associated technical data sheets:

- 2-way and 3-way flow control valves type S: [D 6233](#)

Similar products:

- 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](#)