

Flow control valves type SE and SEH with electro-proportional actuation

The SE and SEH type flow control valves are intended for smooth velocity control of hydraulic actuators independent of pressure. They may be utilized as 2-way or 3-way flow control valves and are available with an adjustable metering orifice. The adjustment of this orifice is either directly electro-proportional (type SE) or electro-proportional piloted (type SEH). The orifice can be open or blocked in the idle position. This feature enables pre-defined acceleration and braking sequences within automatic working cycles.



A piloted pressure limiting valve, a solenoid actuated idle circulation valve (for 3-way controllers only), and a by-pass check valve are available. In addition, a bridge rectifier circuit utilizing check valves to enable arbitrary flow direction (for 2-way controllers only) is available as an option.

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

Design: Individual valve for pipe mounting or screw-in valve

Adjustability: Electro-proportional

p_{max}: 315 bar

Q_{max}: 0.1 ... 120 lpm

Basic types and general parameters

Basic type and size	Flow		Oper. pressure p _{max} (bar)	Tapped ports (BSPP) ³⁾	Symbol	
	2-way	3-way			Q _{max} (lpm) ¹⁾	2-way
Directly actuated	SE 2-3	SE 3-3	0.3 ... 50	315	G 1/2	
	SE 2-4	---	0.6 ... 70	315	G 3/4	
Hydraulically piloted	---	SE 3-4	0.6 ... 90	315	G 3/4	
	SEH 2-2	SEH 3-2	0.1 ... 30	315	G 3/8	
	SEH 2-3 ⁴⁾	SEH 3-3	0.3 ... 50	315	G 1/2	
	---	SEH 3-4	0.6 ... 90	315	G 3/4	
---	SEH 3-5	1.0 ... 120	315	G 1		

1) Different Q_{max} available, see "Available orifices"
 2) No Z-port with type SEH 3-2
 3) For pipe mounting versions only
 4) For manifold mounting versions only

Available orifices

Q _{max} (lpm)	3	6	10	15	22	30	36	50	70	90	120	Open throttle, when deenergized
	3 F	6 F	10 F	15 F	22 F	30 F	36 F	50 F	70 F	90 F	120 F	Blocked throttle, when deenergized

Solenoid voltage

- 12V DC, 24V DC
- Other voltage on request
- Control via proportional amplifier (see also "Further information")

Options for flow control valves

2-way flow control valve

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

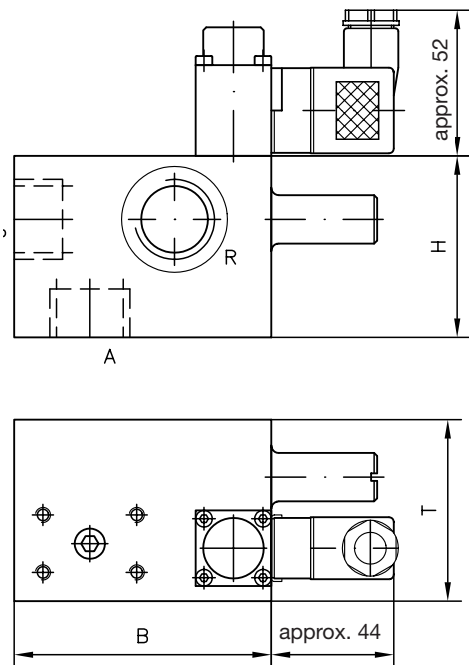
Order examples

SEH 3-4/90F - G24

Proportional 3-way flow control valve type SEH, size 4 for pipe mounting, metering orifice blocked in idle position ($Q_{max} = 90 \text{ lpm}$) and solenoid voltage 24V DC

Dimensions

Valve for pipe mounting valve (see order example)



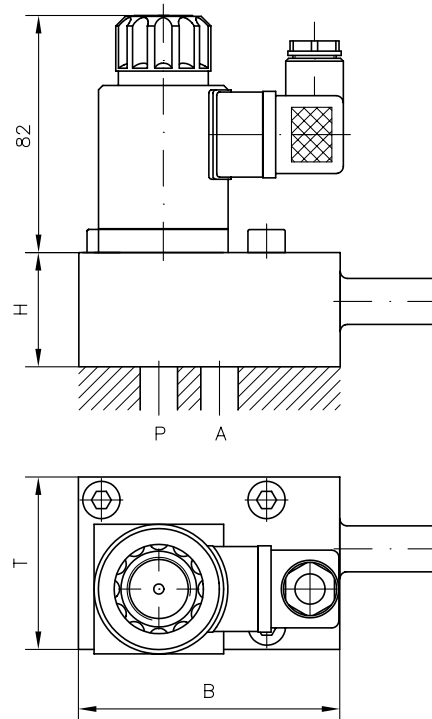
3-way flow control valve

- Version with pressure limiting valve
- Version with pressure limiting valve and idle circulation valve (only available for pipe mounting versions only)
- Version with mandatory blocked position of the flow controller, when not actuated type ..FO ⁵⁾
- Version with automatic idle circulation type ...-B 0.6 ⁵⁾

SE 2-3/30F P - G24

Proportional 2-way flow control valve type SE, size 3 for manifold mounting, metering orifice blocked in idle position ($Q_{max} = 30 \text{ lpm}$) and solenoid voltage 24V DC

Valve for manifold mounting (see order example)



Basic type		H	B	T	m (kg)
SE 2-3	SE 3-3	110 ... 120	80 ... 91	50 ... 60	2.2
SE 2-4	SE 3-4	120 ... 130	85 ... 100	60 ... 70	2.2
SEH 2-2	SEH 3-2	115	55 ... 70	40	1.6 ... 3.3
SEH 2-3 ⁴⁾	SEH 3-3	92.5	80 ... 93	50 ... 60	1.6 ... 3.3
	SEH 3-4	102.5	95 ... 100	60 ... 70	1.6 ... 3.3
	SEH 3-5	112.5	100	70	1.6 ... 3.3

⁴⁾ For manifold mounting versions only
⁵⁾ See also "Further information"

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

Further information

- Prop. flow control valves type SE, SEH D 7557/1
- Flow control valves type SD etc. D 6233
- Prop. amplifier type EV1M (module) D 7831/1
- type EV1G (module) D 7837
- type EV22K2 (card version) D 7817/1
- Programmable logical valve control type PLVC D 7845 ++
- See also section "Devices for special applications" (Proportional valves)

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