

Proportional flow control valve type SE and SEH

Proportional flow control valves are a type of flow valve. They generate a constant flow rate independent of the load which can be controlled in an electro-proportional and remote way.

The flow control valve type SE has a directly actuated metering orifice, which has an advantage of approximately Q_{min} equal to zero in terms of the controllability. The flow control valve type SEH has a piloted metering orifice which is shown to be beneficial in dynamic systems with short reaction times. The flow control valve type SE and SEH is available as a single valve for pipe connection or as a manifold mounting valve.

Pressure-limiting valves and randomly switchable idle circulation valves are additional options. The flow control valve type SE and SEH controls the operating speed of hydraulic consumers.

Features and benefits:

- Electrical control of consumer operating speeds
- Automation of operating cycles

Intended applications:

- Construction machines
- Machine tools
- General hydraulic systems
- Mining machinery



Nomenclature:	2-way flow control valve 3-way flow control valve
Design:	Individual valve for pipe mounting or Screw-in valve
Adjustment:	Electro-proportional
p_{max}:	315 bar
Q_{max}:	120 lpm

Design and order coding example

SE 2-3 /30F - P - G24

Solenoid voltage Prop. solenoid

- 12 V DC, 24 V DC
- Controls via prop. amplifier or PLVC

Design and port size

- Pipe connection
- Manifold mounting (P)

Flow [lpm] Nom. flow of the metering orifice

- Deenergized open
- Deenergized closed (coding F)

Orifice steps Q_{max} : 3, 6, 10, 15, 22, 30, 36, 50, 70, 90, 120 lpm

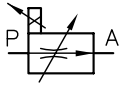
Basic type, size Type SE, with non-piloted metering orifice, size 3, 4
Type SEH, with piloted metering orifice, size 2 to 5

- Available as 2- and 3-way flow control valve

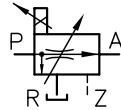
Function

SE, SEH

2-way
Pipe connection

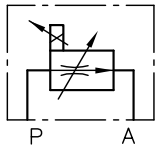


3-way
Pipe connection

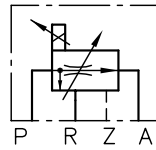


1)

2-way
Manifold mounting valve



3-way
Manifold mounting valve



1) No Z port with type SEH 3-2

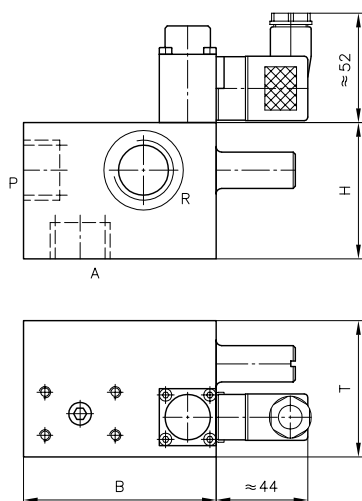
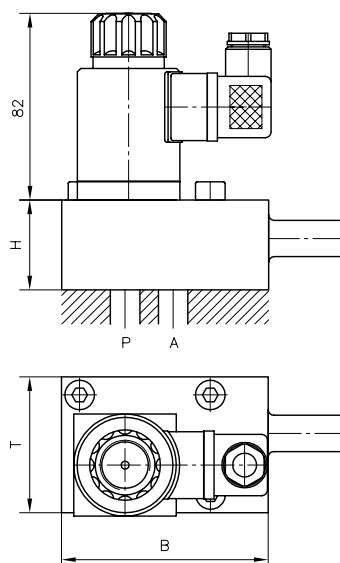
Additional functions for flow control valves:

2-way flow control valve

- Version with bypass check valve
- Version with check valve in bridge circuit for free selection of the flow direction

3-way flow control valve

- Version with pressure-limiting valve
- Version with pressure-limiting valve and circulation valve (for pipe connection versions only)
- Version with compulsory closed position of the pressure compensator when not actuated type ...F0
- Version with automatic circulation type ...B 0.6

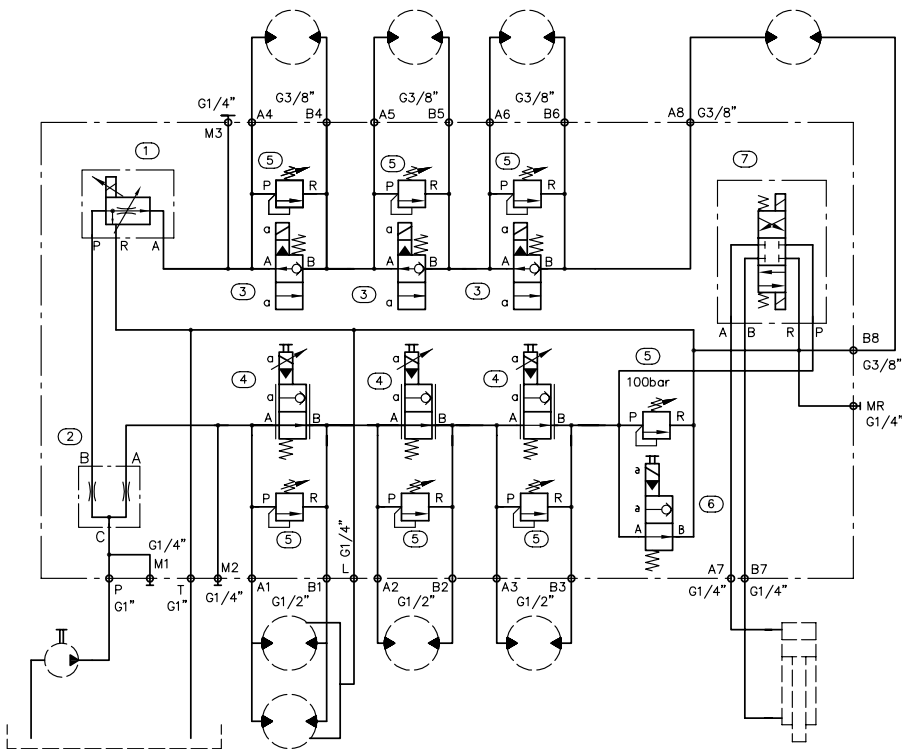
General parameters and dimensions
SEH
 Version for pipe connection

SE
 Manifold mounting valve


Basic type and size			Q_{max} [lpm] ¹⁾	p_{max} [bar]	Ports ²⁾	Dimensions [mm]			m_{max} [kg]
2-way	3-way					H	B	T	
SE 2-3	SE 3-3	Directly actuated	0,3 ... 50	315	G 1/2	110 ... 120	80 ... 91	50 ... 60	2,2
SE 2-4	SE 3-4		0,6 ... 90	315	G 3/4	120 ... 130	85 ... 100	60 ... 70	2,2
SEH 2-2	SEH 3-2	Hydraulically piloted	0,1 ... 36	315	G 3/8	115	55 ... 70	39	1,6 ... 3,3
SEH 2-3 ³⁾	SEH 3-3		0,3 ... 50	315	G 1/2	92,5	80 ... 93	50 ... 60	1,6 ... 3,3
-	SEH 3-4		0,6 ... 90	315	G 3/4	102,5	95 ... 100	60 ... 70	1,6 ... 3,3
-	SEH 3-5		1,0 ... 120	315	G 1	112,5	100	70	1,6 ... 3,3

- 1) Different Q_{max} available, see Design and order coding example: "Orifice steps"
- 2) For pipe connection versions
- 3) For manifold mounting versions only

Circuit example

- ① SEHD 3-3/30 FP-X 24
- ② TQ 4 P-A 5/2
- ③ EM 31 V-X24
- ④ EMP 31 S-X 24
- ⑤ MVH 6 C
- ⑥ EM 31 S-X24
- ⑦ SWPN 2-G-X24



Associated technical data sheets:

- [Proportional flow control valve type SE and SEH: D 7557/1](#)

Similar products:

- [Flow control valve type SD, SF and SK: D 6233](#)

Suitable accessories:

- [Proportional amplifier type EV1M3: D 7831/2](#)
- [Proportional amplifier type EV2S: D 7818/1](#)
- [Proportional amplifier type EV1D: D 7831 D](#)