

# 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 manifold mounting
Adjustability:	Electro-proportional
p <sub>max</sub> :	315 bar
Q <sub>max</sub> :	0.1 120 lpm

#### Basic types and general parameters

Basic type and size		Flow	Oper. pressure	Tapped ports	Symbol			
	2-way	3-way	Q <sub>max</sub> (lpm) 1)	p <sub>max</sub> (bar)	<b>(BSPP)</b> <sup>3</sup> )	2-way	3-way	
Directly	SE 2-3	SE 3-3	0.3 50	315	G 1/2	Pipe mounting		
actuated	SE 2-4		0.6 70	315	G 3/4	PAA	P A	
		SE 3-4	0.6 90	315	G 3/4			
Hydraulically	SEH 2-2	SEH 3-2	0.1 30	315	G 3/8	_	∐ <sub>R</sub> i <sub>Z 2)</sub>	
piloted	SEH 2-3 4)	SEH 3-3	0.3 50	315	G 1/2	Manifold	Manifold mounting	
		SEH 3-4	0.6 90	315	G 3/4			
		SEH 3-5	1.0 120	315	G 1			
1) Different Q <sub>max</sub> 2) No Z-port with		ailable orifices	"				P L R Z A	

- 2) No Z-port with type SEH 3-2
- 3) For pipe mounting versions only
- 4) For manifold mounting versions only

## Available orifices

Q<sub>max</sub> (lpm) 120 Open throttle, when deenergized 10 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")

**2.4**-8

#### **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

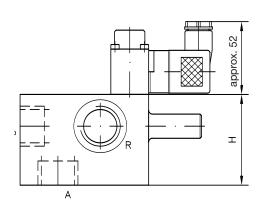
#### **Order examples**

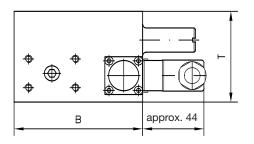
#### SEH 3-4/90F - G24

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

#### **Dimensions**

Valve for pipe mounting valve (see order example)





#### m (kg) Basic type Н В Т **SE 2-3** SE 3-3 110 ... 120 80 ... 91 50 ... 60 2.2 SE 2-4 SE 3-4 2.2 120 ... 130 85 ... 100 60 ... 70 **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

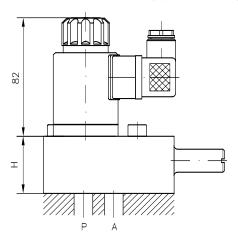
#### 3-way flow control valve

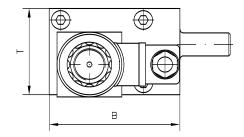
- Version with pressure limiting valve
- Version with pressure limiting valve and idle circulation valve (only available for pipe mounting versions only)
- Version with mandatory blocked position of the flow controller, when not actuated type ..FO <sup>5</sup>)
- Version with automatic idle circulation 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 ( $Q_{max} = 30$  lpm) and solenoid voltage 24V DC

#### Valve for manifold mounting (see order example)





- 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)
   b 7831/1
   type EV1G (module)
   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