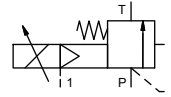


# pressure limitation valve

## type SPB-S 50



**control valve** proportional  
**pressure range** PN 5-64 bar  
**orifice** DN 50 mm  
**connection** thread  
**function** stepless  
 pressure regulation  
 bypass version



Above stated body materials refer to the valve port connections that get in contact with the media only!

**design** externally controlled with spring return  
**body materials** ① ④ steel, nickel plated  
 ② ⑤  
 ③ ⑥  
**valve seat** metal on metal  
**seal materials** FPM, PTFE

**details needed for main valve**

- orifice
- port
- pressure regulating range
- flow rate
- media
- media temperature
- ambient temperature

**details needed for proportional valve**

- nominal voltage
- actuation pressure range min/max

**general specifications**

|                                  |                     |                 |
|----------------------------------|---------------------|-----------------|
| <b>ports</b>                     | SPB                 | threads G 1 1/2 |
| <b>function</b>                  | stepless regulation |                 |
| <b>pressure regulation range</b> | bar                 | 5-64            |
| <b>flow rate</b>                 | m³/h                | 48,0            |
| <b>media</b>                     | emulsions - oils    |                 |
| <b>abrasive media</b>            | P ⇌ T as marked     |                 |
| <b>flow direction</b>            | ms < 900            |                 |
| <b>settling time</b>             | °C 0 to +60         |                 |
| <b>media temperature</b>         | °C 0 to +50         |                 |
| <b>ambient temperature</b>       | approvals           |                 |
| <b>mounting</b>                  | weight              |                 |
| <b>weight</b>                    | kg 11,9             |                 |
| <b>additional equipment</b>      |                     |                 |

**options**

SAE port DIN ISO 6162

**electrical specifications**

|                              |   |   |
|------------------------------|---|---|
| <b>nominal voltage</b>       | U <sub>B</sub>                              | DC 24 V (max. residual ripple 10 %)                   |
| <b>current consumption</b>   | DC  | < 0,7 A   |
| <b>control signals</b>       | U <sub>E</sub>                              | 0-10 V (R <sub>E</sub> 10 KΩ)                         |
| <b>protection</b>            | IP65 (P54)                                  | acc. DIN 40050  |
| <b>energized duty rating</b> | ED  | 100 % (observe the connection conditions accordingly) |
| <b>connection</b>            | plug with 7 contacts / wire diameter 6-8 mm |   |

**options**

**pneumatic specifications**

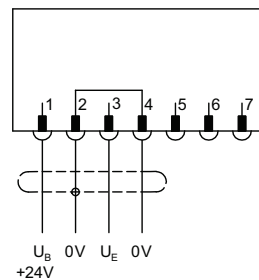
|                                 |  |                                |
|---------------------------------|--|--------------------------------|
| <b>actuation pressure range</b> | bar  | see actuation pressure-diagram |
| <b>compressed air</b>           | DIN ISO 8573-1 grade of compressed air quality 5/4/3 |                                |
| <b>control</b>                  | by 3/2 way proportional valve                        |                                |
| <b>actuator ports</b>           | 1  | G 1/8                          |

**options**

The valves' technical design is based on media and application requirements. This can lead to deviations from the general specifications shown on the data sheet with regards to the design, sealing materials and characteristics.

If order or application specifications are incomplete or imprecise there exists a risk of an incorrect technical design of the valve for the required application. As a consequence, the physical and / or chemical properties of the materials or seals used, may not be suitable for the intended application.

**connection plan**



**connection conditions**

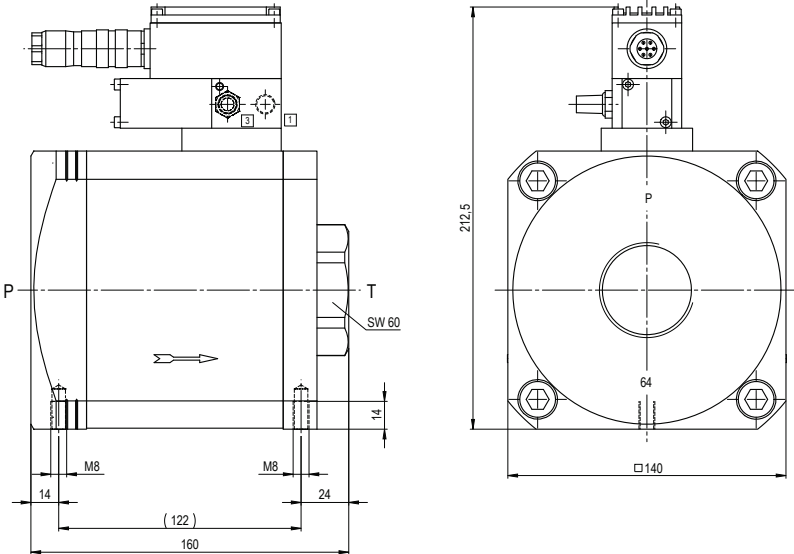
When supplying the electrical set point signal to the proportional valve, the actuating air must already be present. (see actuation pressure-diagram).

**position of installation**

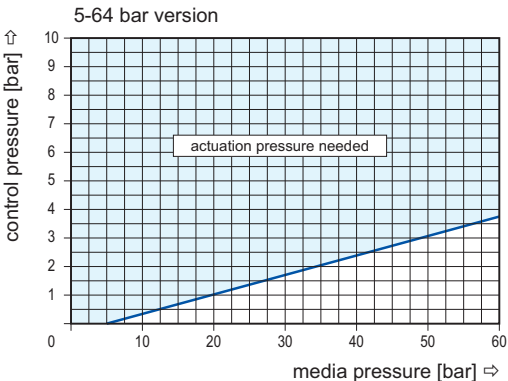
arbitrarily, but regulator not downwards.

■ specifications not highlighted are standard  
 ■ specifications highlighted in grey are optional

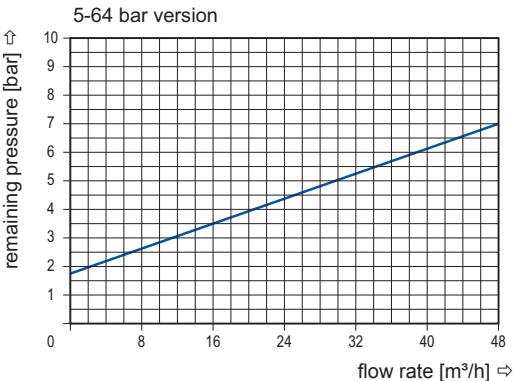
type **SPB-S 50**



**actuation pressure-diagram**



**pressureless circulation mode**



Sound creation during low pressure circulation mode and flow Q= 48 m³/h ca. 74 dbA