

# pressure limitation valve

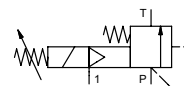
## type HPB-H 15

### 3-HPB-H 15

valve type with pilot valve



**control valve** manual externally controlled  
**pressure range** PN 5-120 bar  
**orifice** DN 15 mm  
**connection** thread  
**function** manual stepless pressure regulation



**⚠** 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  
 ② steel, galvanized 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 pneumatic actuation**

- nominal voltage
- type of protection
- actuation pressure range min/max

**general specifications**

**options**

|                                  |  |             |                       |
|----------------------------------|--|-------------|-----------------------|
| <b>ports</b>                     | HPB                                    | threads G 1 | SAE port DIN ISO 6162 |
| <b>function</b>                  | stepless regulation                    |             |                       |
| <b>pressure regulation range</b> | bar 5-120                              |             |                       |
| <b>flow rate</b>                 | m³/h 6,0                               |             |                       |
| <b>media</b>                     | liquid - highly viscous - contaminated |             |                       |
| <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>                  | mounting holes                         |             |                       |
| <b>weight</b>                    | kg 2,6                                 |             |                       |
| <b>additional equipment</b>      | security valve                         |             |                       |

**electrical specifications**

**options**

|                              |   |                              |
|------------------------------|---|------------------------------|
| <b>nominal voltage</b>       | U <sub>n</sub> DC 24 V  | special voltage upon request |
|                              | U <sub>n</sub> AC 230 V 50 Hz   | special voltage upon request |
| <b>power consumption</b>     | DC 4,8 W  | 2,5 W                        |
|                              | AC pick up 11,0 VA holding 8,5 VA   |                              |
| <b>protection</b>            | IP65 (P54) acc. DIN 40050   |                              |
| <b>energized duty rating</b> | ED 100%   |                              |
| <b>connection</b>            | plug acc. DIN EN 175301-803 form B, 3 positions x90° / wire diameter 6-8 mm |                              |
| <b>optional</b>              | M12x1 connector acc. DESINA   | connector acc. VDMA          |
| <b>additional equipment</b>  | illuminated plug with varistor  |                              |
| <b>max. temperature</b>      | media 60°C  |                              |
|                              | ambient 50°C  |                              |
| <b>explosion proof</b>       | E Ex e II T5 nominal voltage U <sub>n</sub>                                 | DC 24 V 3,25 W               |
|                              | power consumption   | AC 230 V 50 Hz 2,90 W        |

**⚠** 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.

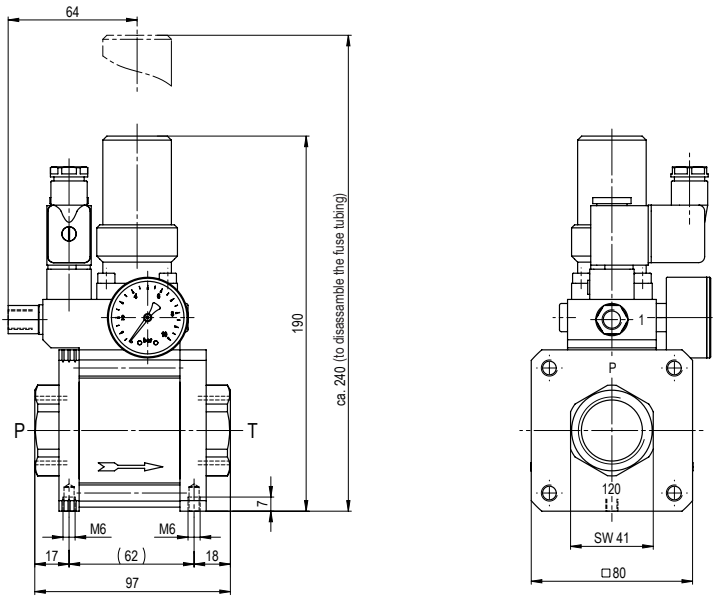
**pneumatic specifications**

**options**

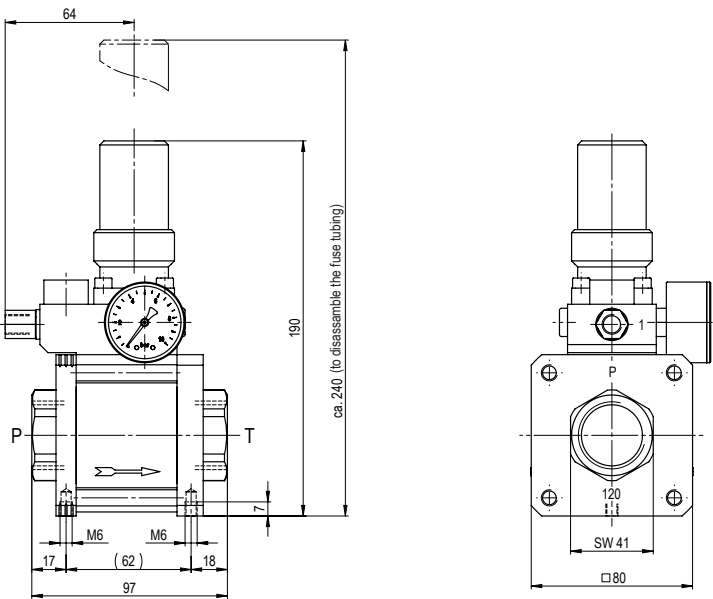
|                                 |   |
|---------------------------------|---|
| <b>actuation pressure range</b> | bar see actuation pressure-diagram                                  |
| <b>compressed air</b>           | DIN ISO 8573-1 grade of compressed air quality 5/4/3                |
| <b>control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

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

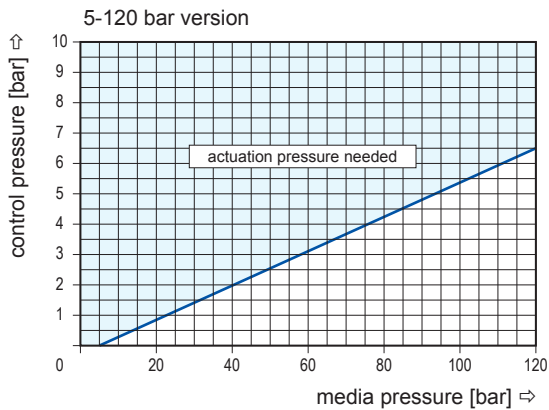
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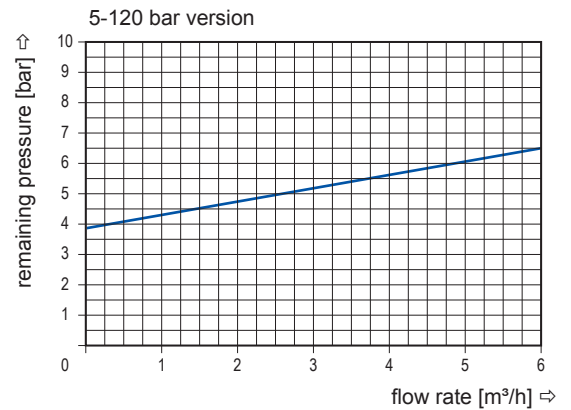
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### actuation pressure-diagram



### pressureless circulation mode



Sound creation during low pressure circulation mode and flow  $Q=6 \text{ m}^3/\text{h}$  ca. 70 dbA