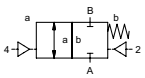
# lateral valve
# type PCB-1 10

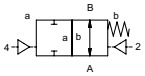
**5-PCB-1 10**

**valve type with pilot valve**

| | |
|---|---|
| **2/2 way valve** | **externally controlled** |
| **pressure range** | PN 0-25 bar |
| **orifice** | DN 10 mm |
| **connection** | thread |
| **function** | valve<br>normally closed<br>symbol **NC** |



| | |
|---|---|
| | valve<br>normally open<br>symbol **NO** |



| | |
|---|---|
| **design** | externally controlled with spring return |
| **body materials** | ⓪ aluminium ③<br>① ④<br>② ⑥ stainless steel |
| **valve seat** | synthetic resin on metal / metal on metal |
| **seal materials** | EPDM, NBR, FPM, metalbrat (1.4571) |

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

**details needed for main valve**
- orifice
- port
- function NC/NO
- operating pressure/Δp
- flow rate
- media
- media temperature
- ambient temperature
- type of actuation

**details needed for pneumatic actuation**
- nominal voltage
- type of protection
- actuation pressure range min/max
- low wattage coil, actuation pressure range 4-7 bar
- pilot valve type

**details needed for hydraulic actuation**
- actuation pressure range min/max
- hydraulic control valve function

⚠ 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.

## general specifications

| | | | options |
|---|---|---|---|
| **ports** | PCB-1 | threads G 3/8 | special threads |
| **function** | | NC | NO |
| **pressure range** | bar | 0-25 (see pressure diagram) | NO (see pressure diagram) |
| **Kv value** | m³/h | 3,0 | |
| **vacuum** | leak rate | | |
| **pressure-vacuum** | $P_1 \Leftrightarrow P_2$ | | |
| **back pressure** | $P_2 > P_1$ | | available upon request |
| **media** | | gaseous - liquid - highly viscous - gelatinous - pasty - contaminated | |
| **abrasive media** | | | version available |
| **damping** | opening | | |
| | closing | by throttles on pilot valve | |
| **flow direction** | A ⇨ B | as marked | bi-directional upon request |
| **switching cycles** | 1/min | 60 | |
| **switching time** | ms | opening 30-3000 closing 30-3000 | |
| **media temperature** | °C | direct mounted pilot valve 60 | remote mounted pilot valve outside tempe- |
| **ambient temperature** | °C | direct mounted pilot valve 50 | ratur range of media max. 150 °C |
| **flush ports** | | | |
| **leak ports** | | | available |
| **limit switches** | | | inductive |
| **manual override** | | via 5/2 way pilot valve | |
| **approvals** | | | WAZ |
| **mounting** | | | mounting holes on valve body 2 x M6 |
| **weight** | kg | PCB-1 1,1 | |
| **additional equipment** | | | upon request |

## electrical specifications

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

## pneumatic specifications

| | | | options |
|---|---|---|---|
| **actuation pressure range** | bar | 4-10 | |
| **air consumption** | cm³/stroke | PCB-1 7 | |
| **cycle speed** | | main valve speed variable by throttleson pilot valve | |
| **control** | | via 5/2 way pilot valve | |
| **pilot valve interface** | | | |
| **actuator ports** | 2/4 | G 1/8 | |

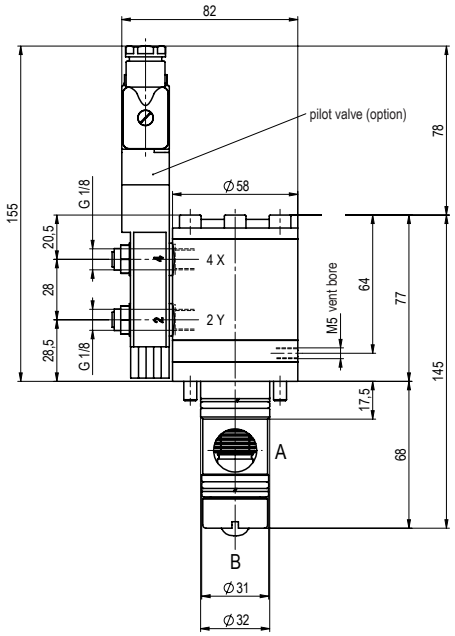
## hydraulic specifications

| | | | options |
|---|---|---|---|
| **actuation pressure range** | bar | 10-30 | >30 bar upon request |
| **control** | | preferably 4/2 way control valve | |
| **actuator ports** | X/Y | G 1/4 via adapter | NPT 1/4 via adapter |
| **by media** | | | |

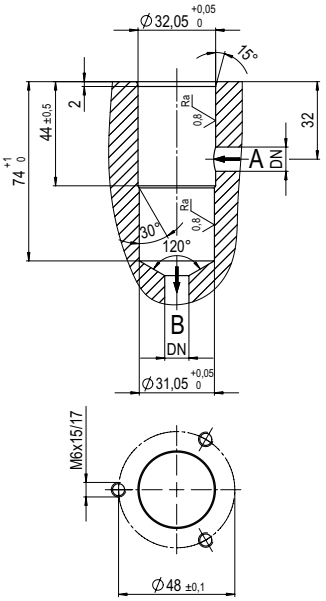
- specifications not highlighted are standard
- specifications highlighted in grey are optional

# type **PCB-1 10**

function: **NC**
closed when not energized

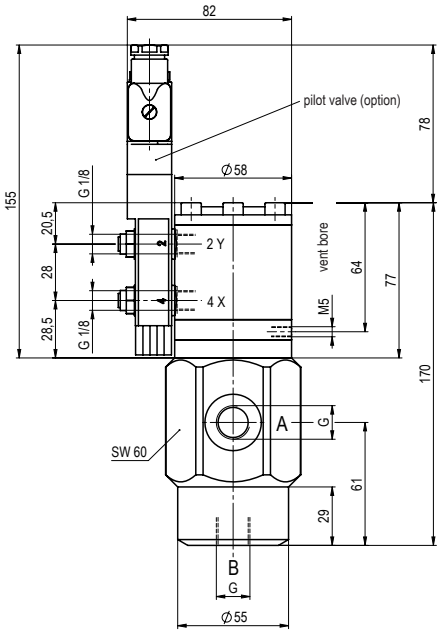



**drilling design for cartridge**

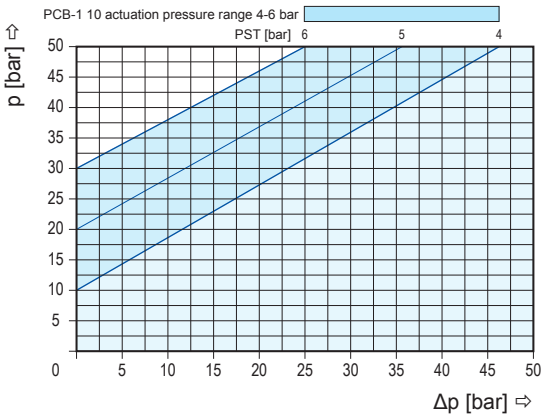



# type **PCB-1 10**

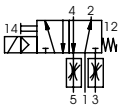
function: **NO**
open when not energized




**pressure-diagram**




**pneumatic actuation**




5/2 way pilot valve
flow rate 350 l/min
pressure range 3-10 bar G 1/8