

PUM06

Universal Pressure Transmitter of Stainless Steel

- **relative- or absolute pressure measurement**
- **accuracy: 0,3 % FS**
- **optional front flush stainless steel membrane**
- **robust design**
- **current or voltage output**
- **max. temperature: 80 °C**
- **measuring range from -1 to +2500 bar**



Description:

The universal pressure transmitter PUM06 can be used for relative and absolute pressure measurement in almost all pressure ranges for gaseous and liquid media. The pressure is tapped either piezoresistively or via a thin-film sensor element. In the case of the low measuring ranges, the pressure change is registered by the electrical resistance of a piezocrystal which changes under mechanical load. In contrast, at higher measurement ranges, the thin-film technique is used, where the resistance change of an extremely thin strain gauge is translated into an output signal which is proportional to the applied pressure.

The combination of these two techniques covers all DIN measuring ranges from -1...0 bar to 0...2500 bar with constant accuracy.

Typical applications:

The robust design of the PUM06 pressure transmitter offers the user the ability of accurate pressure measurement of gases and liquids in the process, even in harsh operating conditions. A stainless steel membrane protects the measuring system against damage, so that a variety of media, even highly viscous and crystallizing media can be detected. If necessary, the pressure transmitter are equipped with a front-flush membrane, which prevents such substances from getting lodged inside the housing. The electrical signal present at the output can be used for remote transmission or for direct display.

We recommend the PKP plug-in display AZ01, which is simply placed between the transmitter and the plug and displays the measured value without additional power supply.

Models:

Meas. system piezoresistive: MR: -0,1...0 to 0...25 bar
Meas. system thin-film: MR: 0...40 to 0...2500 bar

Technical Data:

Process connection: G ½ B male thread
G ¾ B with front flush membrane
(to MR **R78** 0...25 bar)
G ½ B with front flush membrane
(at MR **R79** 0...40 bar)
G ¼ female
other designs on request

Material:

Housing: stainless steel 1.4301

Pressure port: stainless steel 1.4571

Pressure sensor: 1.4435 (piezoresistive)
1.4545 (thin-film)

Media temperature: -25 ... +80 °C

Ambient temperature: -20 ... +70 °C

Storage temperature: -40 ... +100 °C

Accuracy: according to IEC 61298-2
linearity+hysteresis+repeatability:
<0,3 % FS, <0,2 % BFSL

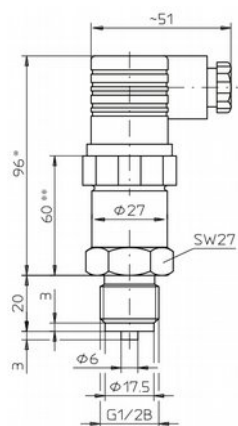
Temperature error: average TK zero point:
<0,2 % FS / 10 K
average TK range:
<0,2 % FS / 10 K

Reaction time: < 10 ms

Weight: ca. 0,24 kg

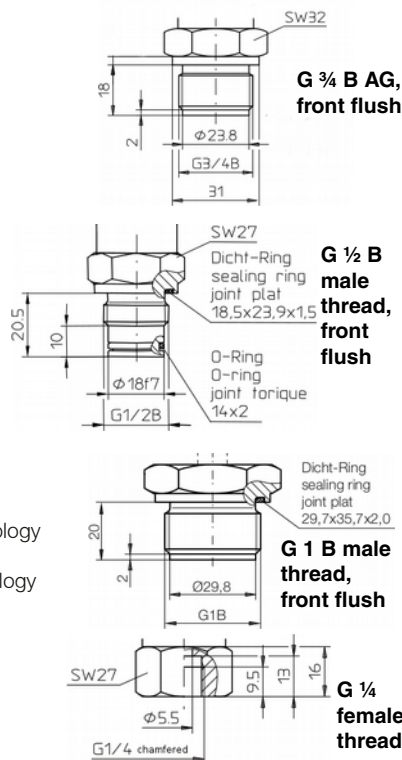
Dimensions:

G ½ B, inside
membrane



* 101 mm at thin-film technology
(from MR R79: 0...40 bar)

** 65 mm at thin-film technology
(from MR R79: 0...40 bar)



Order Code:

Order number: PUM06. 2. 1. 2. 1. R76. 0

Universal pressure transmitter

Output signal:

1 = 4 bis 20 mA, 2-wire
2 = 0 bis 10 V, 3-wire

Calibration:

1 = relative pressure
2 = absolute pressure

Electrical connection:

1 = angle plug, IP65, EN 175301-803 form A
2 = fixed connection cable IP68 (1 m standard length)

Process connection:

1 = G ½ B male, acc. to EN 837-1, inside membrane
2 = G ¾ B male front flush membrane (up to MR **R78**)
3 = G ½ B male front flush membrane (from MR **R79**)
4 = G 1 B male front flush membrane
5 = G ¼ female, inside membrane
9 = special connection (please specify in plain text)

Measuring range / Overrange limit:

R = relative

A = absolute

R11 = -0,10...0 bar / 0,6 bar

R12 = -0,16...0 bar / 0,6 bar

R13 = -0,25...0 bar / 0,6 bar

R14 = -0,4...0 bar / 2,0 bar

R15 = -0,6...0 bar / 2,0 bar

R16 = -1...0 bar / 2,0 bar

R43 = -1...1,5 bar / 4 bar

R44 = -1...3 bar / 13 bar

R45 = -1...5 bar / 13 bar

R63 = 0...0,1 bar / 0,6 bar

R64 = 0...0,16 bar / 0,6 bar

R65 = 0...0,25 bar / 0,6 bar

R66 = 0...0,4 bar / 2,0 bar

R67 = 0...0,6 bar / 2,0 bar

R69 = 0...1 bar / 2,0 bar

R70 = 0...1,6 bar / 4 bar

R72 = 0...2,5 bar / 6 bar

R73 = 0...4 bar / 13 bar

R74 = 0...6 bar / 13 bar

R75 = 0...10 bar / 32 bar

R76 = 0...16 bar / 32 bar

R78 = 0...25 bar / 32 bar

R79 = 0...40 bar / 80 bar

R80 = 0...60 bar / 108 bar

R81 = 0...100 bar / 170 bar

R82 = 0...160 bar / 256 bar

R84 = 0...250 bar / 400 bar

R86 = 0...400 bar / 600 bar

R87 = 0...600 bar / 840 bar

R88 = 0...1000 bar / 1400 bar

R89 = 0...1600 bar / 2080 bar

R90 = 0...2500 bar / 3000 bar

A65 = 0...0,25 bar / 0,6 bar

A66 = 0...0,4 bar / 2,0 bar

A67 = 0...0,6 bar / 2,0 bar

A69 = 0...1 bar / 2,0 bar

A70 = 0...1,6 bar / 4 bar

A72 = 0...2,5 bar / 6 bar

A73 = 0...4 bar / 13 bar

A74 = 0...6 bar / 13 bar

A75 = 0...10 bar / 32 bar

A76 = 0...16 bar / 32 bar

further measuring ranges
on request

Options:

0 = without

9 = please specify in plain text

Accessory: Self powered plug-in display **AZ01**

Electrical Data:

Power supply:

7,5...30 VDC at current output
12...30 VDC at voltage output

Power consumption:

max. 0,75 W

Output:

current output 4...20 mA, 2-wire.
load = (U-7,5 V) / 0,025 A
voltage output 0...10 V, 3-wire.
load > 10 kOhm
special range factory adjustable

Transient emissions:

according to EN 61326

Immunity:

according to EN 61326

Protection class:

IP65 EN 60 529 / IEC 529
IP68 with cable connection