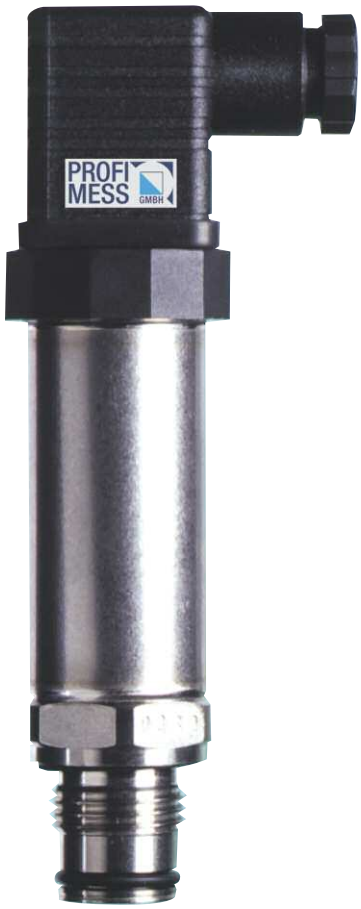
PU-02

Pressure Measuring Transmitter for General Industrial Applications



- Accuracy class 0.5
- Pressure connection in stainless steel
- Robust design
- High precision and linearity
- Excellent media compatibility
- Adjustable zero point and measuring span

Description:
The PU-02 series of pressure sensors is qualitatively highly accurate and reliable transmitters that identify the close-lying pressure through a piezo-resistive or a thin-film sensor element, depending on the pressure range. The pressure-dependent resistance signal output by this sensor element is converted into a power or voltage signal through a amplifier. Alternatively, a power signal of 4 to 20 mA in 2-wire method or a voltage signal of 0 to 10 VDC in 3-wire method can be delivered from the transmitter. Other types of output signals are available on request. The PU-02 with the front flush stainless steel diaphragm is particularly suited for sticky or tenacious media as the media cannot creep into the device and destroy it or clog it.
Two potentiometers allow adjustment of zero point and measuring span for difficult measuring tasks such as fill level measuring in hydrostatic columns.

Range of application:
The PU-02 pressure measuring transmitters are used for measuring pressure in fluid or gaseous materials. The wetted parts are made of stainless steel and, therefore, compatible with a number of media. If the measurement media require other conditions due to hostile nature, viscosity or temperature of the media, the transmitters can be equipped with diaphragm seals to allow flange connections, milk tube joints or tri-clamp joints (common types on request).
Due to its compact design, accuracy and material combination the PU-02 is ideal for a wide range of applications.

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Versions:

PU-02 Pressure Measuring Transmitter Class 0.5

Output signal: Possible output signals are: power signal of 4 to 20 mA in 2-wire method or voltage signal of 0 to 10 VDC in 3-wire method (other outputs on request).

Calibration: On request, the devices can be calibrated in the operating range of 0 to 0.25 bar up to a operating range of 0 to 16 bar at absolute pressure.

Electrical connection: Series plug DIN EN 175301-803 form A with junction box. Optionally, permanently connected cable, standard length 1 m.

Process connection: On request, the devices can be supplied for operating ranges A up to X with a front flush stainless steel diaphragm. This is recommendable for viscous or sticky media.

Ordering codes:

Ordering number:	**PU-02.**	**2.**	**1.**	**2.**	**2.**	**L**

Pressure Measuring Transmitter Class 0.5

Output signal:
1 = 4 to 20 mA, 2-wire
2 = 0 to 10 VDC, 3-wire

Calibration:
1 = gauge pressure
2 = absolute pressure (for operating ranges F to O only)

Electrical connection:
1 = plug connection
2 = with permanent fixed connecting cable

Process connection:
1 = G 1/2 B
2 = front flush diaphragm
(for operating ranges A to X)

Operating range:
A = -1 to 0 bar
B = -1 to 1.5 bar
C = -1 to 5 bar
D = 0 to 0.1 bar
E = 0 to 0.16 bar
F = 0 to 0.25 bar
G = 0 to 0.4 bar [1]
H = 0 to 0.6 bar [2]
I = 0 to 1 bar
J = 0 to 1.6 bar
K = 0 to 2.5 bar
L = 0 to 4 bar
M = 0 to 6 bar
N = 0 to 10 bar
O = 0 to 16 bar
P = 0 to 25 bar
Q = 0 to 40 bar
R = 0 to 60 bar
S = 0 to 100 bar
T = 0 to 160 bar
U = 0 to 250 bar
W = 0 to 400 bar
X = 0 to 600 bar
Y = 0 to 1000 bar (not for front flush diaphragm)

[1] (with internal diaphragm for absolute pressure - on request only)
[2] (for absolute pressure - on request only)

Electrical specifications:

Supply voltage:	10 to 30 V DC at power output 14 to 30 V DC at voltage output
Power consumption max.:	20 mA
Load:	voltage output load ≥ 10 kOhm power output load ≤ (UB-10 V) / 0.02 A
Interference signal:	as per EN 61326
Interference-proof:	as per EN 61326
Protection class:	IP65 EN 60 529/IEC 529, IP67 for cable connection
Type of electrical protection:	protected against polarity reversal, excess voltage and short-circuiting

Technical specifications:

Process connection:	G 1/2 B male, for front flush diaphragm, optionally available are G 1/4 B, 1/4 NPT and 1/2 NPT (for front flush diaphragm: ≤ 1.6 bar G 1 B ≥ 2.5 bar G 1/2 B)
Material contacted components:	stainless steel 1.4571 and 1.4542 (for front flush diaphragm only 1.4571 and o-ring seal (NBR))
max. Pressure:	3.5-times the operating range end value for operating range up to 16 bar, 2-times the operating range end value for operating range up to 600 bar, 1.5-times the operating range end value for operating range > 600 bar,
max. Media temp.:	-30°C to +100°C (optionally -40°C to +125°C)
max. Ambient temp.:	-20°C to +80°C
max. Storage temp.:	-40°C to +100°C
Compensated range:	0°C to +80°C
Housing:	stainless steel 1.4301
Weight:	approx. 0.2 kg
Accuracy:	Cl. 0,5
Repeatability:	≤ ±0.05% of full scale value
Set time:	≤ 1 ms (within 10% to 90% of full scale value)
Adjustability:	zero point and measuring span up to ±5% (±10% front flush diaphragm)
Temperature factor:	≤ ±0.2%/10K on zero point and span (≤ ±0.4%/10K for operating range 0 to +0.1 bar and 0 to +0,16 bar)