Flush pressure transmitter
Model PY105

Applications

- Filling and packing machinery
- Dosing technology
- Level measurement
- General industrial applications
- Food and beverage industry
- Environmental protection, chemical, coating

Special features

- Measuring ranges : -1 ...600 bar
- Accuracy: up to 0.1% F.S
- Flush diaphragm pressure sensor with thread structure
- High accuracy, high reliability
- Vacuum-tight
- Strong anti-interference, good long-term stability

PY 105 Fush Pressure Transmitter

Description

Expert for viscous and particle-laden mediaThe model PY-105 pressure transmitter with fush diaphragm has been specifcally designed for the measurement of viscous, paste-like, adhesive, crystallising, particle-laden and contaminated media, which would clog the pressure channel of conventional process connections.

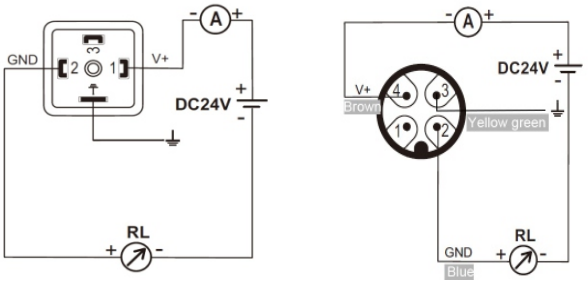
One-piece structural design with high pressure resistance. Touch-resistant, applied pressure through the stainless steel diaphragm, the internal sealing of the media oil transfer to the sensitive chip, the sensitive chip does not directly contact the measured medium, the formation of the pressure measurement of the all-solid structure, so the product can be applied to a variety of occasions, including harsh corrosive media environment.

Specifcations

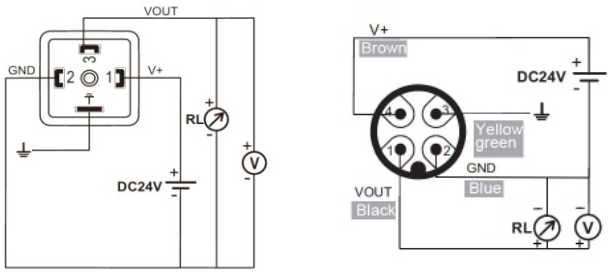
Basic information	
Pressure types	
Pressure ranges	-0.1 ... 600 bar
Accuracy	Standard: ≤±0.5 % of span Option: ≤±0.1 % or ≤±0.25%of span[1] 1) Only for measuring ranges ≥ 0.25 bar
Non-linearity (per IEC 61298-2)	≤±0.2%of span BFSL
Non-repeatability	≤±0.1%of span
Temperature error in rated temperature range	Rated temperature range: 0 ... 80 °C
Mean temperature coefcient of zero point	Measuring range > 0.25 bar:≤ ±0.2 % of span/10 KMeasuring range ≤ 0.25 bar: < ±0.4 % of span/10 K
Mean temperature coefcient of span	≤±0.2 % of span/10 K
Adjustability of zero point and span	Adjustment is made using potentiometers inside the instrument. Zero point: ± 5 % Span: ± 5 %
Response Time	2ms
Output signal	■ Current (2-wire), 4～20mA DC (Load resistance ≤750Ω) ■ Current (3-wire), 0～10 mA DC (Load resistance ≤1.5KΩ) ■ Voltage (2-wire), 1～5V DC (Load resistance ≥250K) ■ Voltage (3-wire), 0～5V DC (Load resistance ≥250K) ■ Voltage (3-wire), 0~10V DC (Load resistance ≥250K)
Load in Ω	Depending on the signal type the following loads apply: ■ Current (2-wire):≤ (power supply - 10 V) / 0.02 A ■ Current (3-wire):≤ (power supply - 3 V) / 0.02 A ■ Voltage (3-wire): > max. output signal / 1 mA
Power supply	The power supply depends on the selected output signal ■ 4 ... 20 mA (2-wire): DC 10 ...30 V ■ 0 ... 20 mA (3-wire): DC 10 ...30 VDC ■ 1 ... 5 V(2-wire): DC 10 ...30 V ■ 0 ... 10 V: DC 14 ... 30 VDC ■ 0 ... 5 V: DC 10 ...30 V
Overpressure	5bar or 3×FS, whichever is smaller
electrical connection	Hirschmann connector, waterproof connector optional
Thread	G1/2, M20*1.5
Material	316L
Ambient conditions	-40...85°C with air humidity ≤95%r.h.
Weight	250 g

Wire

2-wire 4mA ~ 20mA Output

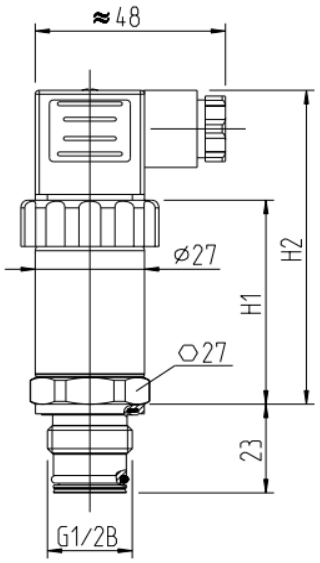


3-wire Voltage Output

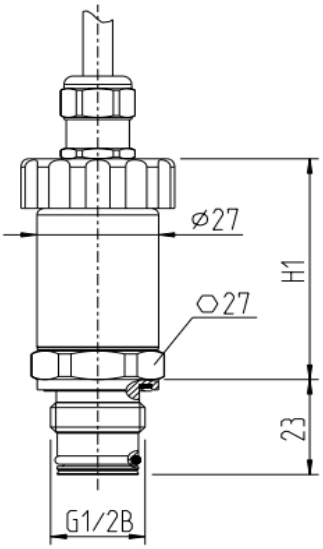


Dimension (Unit: mm)

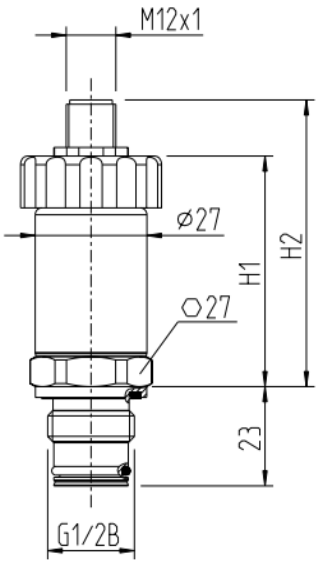
with angular connector DIN 175301-803 A



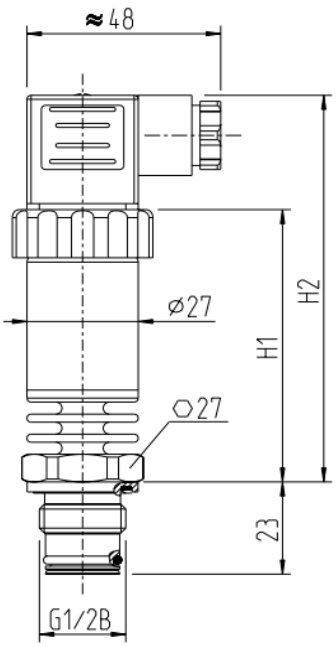
with cable outlet Ip67



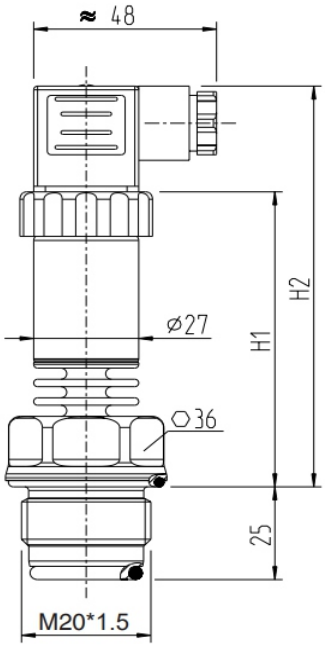
with M12 x 1 circular connector



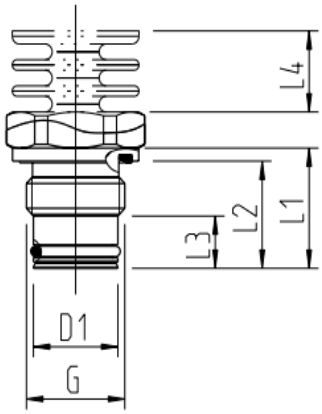
with cooling element for medium temperatures up to 150 °C



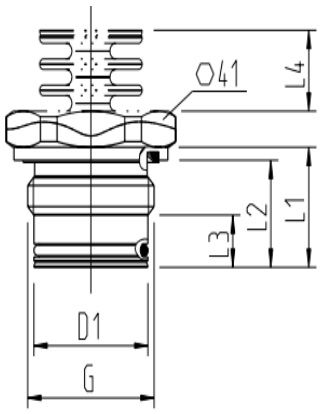
Suitable for medium temperatures up to 150 °C



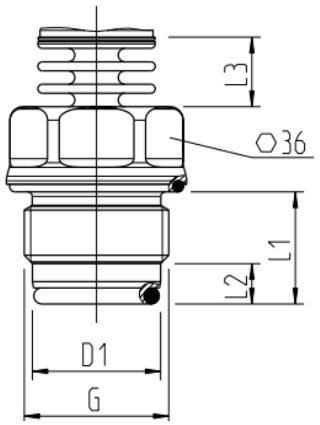
Process connections (Unit: mm)



G	D1	L1	L2	L3	L4
G1/2	18	23	20	10	15



G	D1	L1	L2	L3
M20*1.5	29	29	15	9



G	D1	L1	L2	L3	L4
M20*1.5	30	23	20	10	15

Measuring ranges,vacuum and +/- measuring ranges

Overview pressure ranges				
Type	pressure ranges(bar)	Accuracy (± of full scale value)	media	Burst Pressure
VP -0.25	-0.25...0.25	0.2(0.25,0.5)	Gas/Liquid	3X
VP -0.4	-0.4...0.4	0.1(0.2,0.25,0.5)	Gas/Liquid	3X
VP -0.6	-0.6...0.6	0.1(0.2,0.25,0.5)	Gas/Liquid	3X
VP 0	-1...0	0.1(0.2,0.25,0.5)	Gas/Liquid	3X
VP0.6	-1...0.6	0.1(0.2,0.25,0.5)	Gas/Liquid	3X
VP 1	-1...1	0.1(0.2,0.25,0.5)	Gas/Liquid	3X
VP 1.6	-1...1.6	0.1(0.2,0.25,0.5)	Gas/Liquid	3X
VP 2.5	-1...2.5	0.1(0.2,0.25,0.5)	Gas/Liquid	3X
VP 4	-1...4	0.1(0.2,0.25,0.5)	Gas/Liquid	3X
VP 6	-1...6	0.1(0.2,0.25,0.5)	Gas/Liquid	3X
VP 10	-1...10	0.1(0.2,0.25,0.5)	Gas/Liquid	3X

Measuring ranges,gauge pressure

Overview pressure ranges				
Type	pressure ranges(bar)	Accuracy (± of full scale value)	media	Burst Pressure
GP0.16	0...0.16	0.2(0.25,0.5)	Gas/Liquid	4X
GP 0.25	0...0.25	0.2(0.25,0.5)	Gas/Liquid	4X
GP 0.4	0...0.4	0.2(0.25,0.5)	Gas/Liquid	3X
GP 0.6	0...0.6	0.2(0.25,0.5)	Gas/Liquid	3X
GP 1	0...1	0.1(0.2,0.25,0.5)	Gas/Liquid	3X
GP 1.6	0...1.6	0.1(0.2,0.25,0.5)	Gas/Liquid	3X
GP 2.5	0...2.5	0.1(0.2,0.25,0.5)	Gas/Liquid	3X
GP 4	0...4	0.1(0.2,0.25,0.5)	Gas/Liquid	3X
GP 6	0...6	0.1(0.2,0.25,0.5)	Gas/Liquid	3X
GP 10	0...10	0.1(0.2,0.25,0.5)	Gas/Liquid	3X
GP 16	0...16	0.1(0.2,0.25,0.5)	Gas/Liquid	3X
GP 25	0...25	0.1(0.2,0.25,0.5)	Gas/Liquid	3X
GP 40	0...40	0.1(0.2,0.25,0.5)	Gas/Liquid	3X
GP 60	0...60	0.1(0.2,0.25,0.5)	Gas/Liquid	3X
GP 100	0...100	0.1(0.2,0.25,0.5)	Gas/Liquid	3X
GP 160	0...160	0.1(0.2,0.25,0.5)	Gas/Liquid	3X
GP 250	0...250	0.1(0.2,0.25,0.5)	Gas/Liquid	3X
GP 400	0...400	0.1(0.2,0.25,0.5)	Gas/Liquid	3X
GP 600	0...600	0.1(0.2,0.25,0.5)	Gas/Liquid	3X

Measuring ranges,absolute pressure

Overview pressure ranges				
Type	pressure ranges(bar)	Accuracy (± of full scale value)	media	Burst Pressure
AP 0.25	0...0.25	0.2(0.25,0.5)	Gas	4X
AP 0.4	0...0.4	0.2(0.25,0.5)	Gas	3X
AP 0.6	0...0.6	0.2(0.25,0.5)	Gas	3X
AP 1	0...1	0.1(0.2,0.25,0.5)	Gas	3X
AP 1.6	0...1.6	0.1(0.2,0.25,0.5)	Gas	3X
AP 2.5	0...2.5	0.1(0.2,0.25,0.5)	Gas	3X
AP 4	0...4	0.1(0.2,0.25,0.5)	Gas	3X
AP 6	0...6	0.1(0.2,0.25,0.5)	Gas	3X
AP 10	0...10	0.1(0.2,0.25,0.5)	Gas	3X

Order code

Order code				
Model	**Accuracy**	**Pressure ranges**	**Output**	**Process connection**
PY 105	A010(0.1%F.S) A020(0.2%F.S) A025(0.25%F.S) A050(0.5%F.S)	Table of reference measuring ranges	A: 4～20mA DC B: 0～10 mA DC C: 1～5V DC D: 0～5V DC E: 0～10V DC	G1/2 M20*1.5
Example order number **PY105-A050-GP10(0...10)bar-A-G1/2** PY 105 with G1/2, 0.5%F.S, 4-20 mA, 0...10bar				