Ffange connection, ffush diaphragm pressure transmitter
Model PY107

Applications

- Hydraulic systems and switches
- For aggressive, highly viscous, crystallising or hot media
- Refrigeration and air conditioning systems
- Food, Pharmaceutical, Hygiene and other industries
- CIP/SIP in-line cleaning/sterilization system

Special features

- Measuring ranges : -1 ...40 bar
- Accuracy: up to 0.1% F.S
- Flush diaphragm pressure sensor with thread structure
- High accuracy, high reliability
- Flanges with flat welded diaphragms
- Strong anti-interference, good long-term stability

PY 107 Pressure Transmitter

Description

PY 107 diaphragm pressure transmitter transmits pressure to the measuring instrument through the system packing inside the diaphragm sealing system.
Diaphragm sealing systems are used to protect pressure measuring instruments from aggressive, adherent, crystallizing, corrosive, highly viscous, environmentally harmful or toxic media. Diaphragms made of stainless steel provide isolation from the medium.

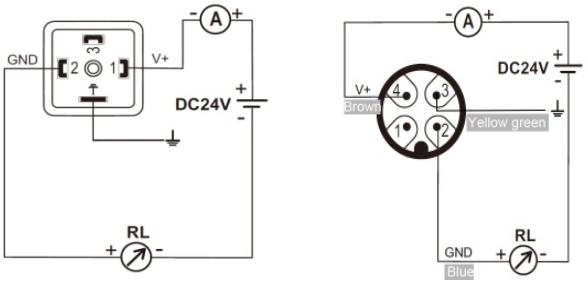
- Hygienic pressure measurement in sanitary applications for the food and beverage industry
- Mounting to pipelines and vessels with 4 ... 20 mA output signal
- Pressure/vacuum monitoring during cleaning, sterilisation, pressure testing
- For gases, compressed air, vapour; liquid, pasty, powdery and crystallising media

Specifcations

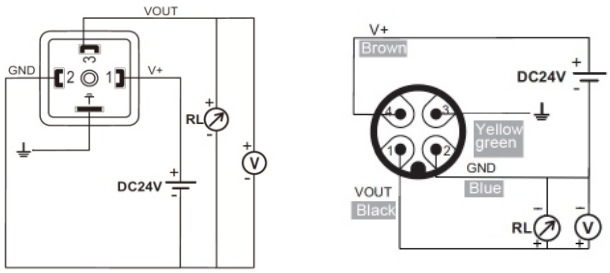
Basic information	
Pressure types	
Pressure ranges	0 ... 40 bar
Accuracy	Standard: ≤±0.5 % of span Option: ≤±0.1 % or ≤±0.25%of span[1] 1) Only for measuring ranges ≥ 1 bar
Non-linearity (per IEC 61298-2)	≤±0.2%of span BFSL
Non-repeatability	≤±0.1%of span
Temperature error in rated temperature range	Rated temperature range: 0 ... 80 °C
Mean temperature coefcient of zero point	Measuring range > 0.25 bar:≤ ±0.2 % of span/10 K Measuring 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
Material	■ Diaphragm: Stainless steel 1.4435 [316L] ■ Diaphragm: Stainless steel 1.4435 [316L], Sprayed PTFE ■ Diaphragm: Hastelloy ■ Diaphragm: Tantalum (chemistry)
Ambient conditions	-40...85°C with air humidity ≤95%r.h.
Weight	1.2kg

Wire

2-wire 4mA ~ 20mA Output

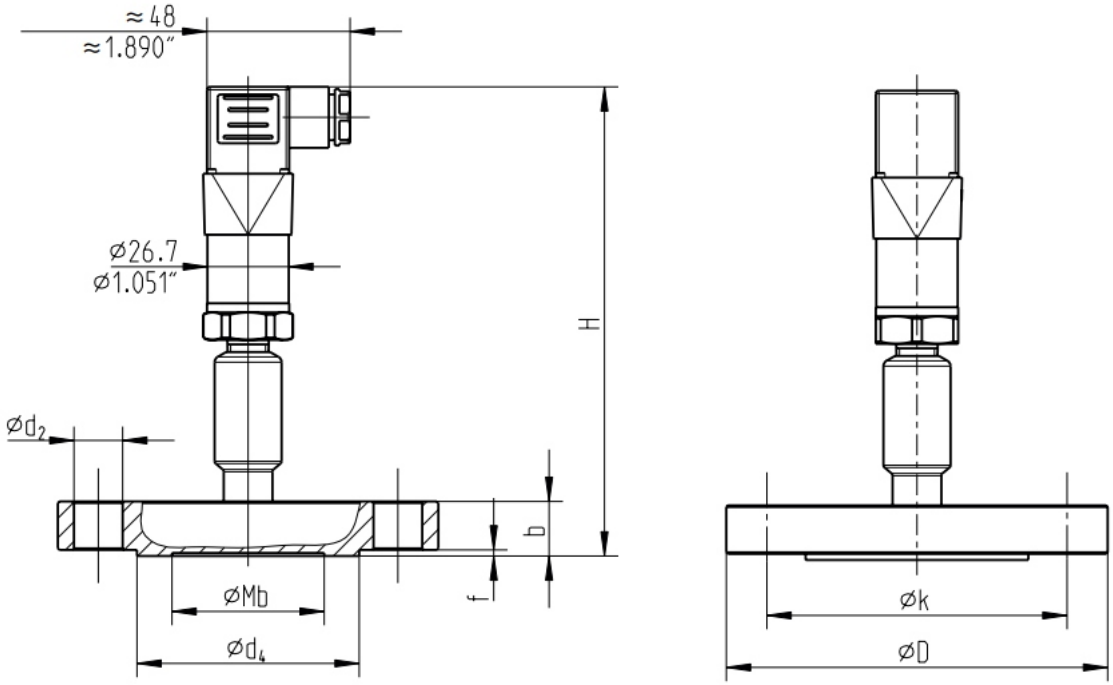


3-wire Voltage Output



Dimension (Unit: mm)

with angular connector DIN 175301-803 A



DN	PN	Dimensions in mm [in]							
		H	Mb	D	b	k	d_2	d_4	f
50	10/40	156 [6.142]	59 [2.323]	165 [6.496]	20 [0.787]	125 [4.921]	18 [0.709]	102 [4.016]	2 [0.079]
80	10/16	156 [6.142]	89 [3.504]	200 [7.874]	20 [0.787]	160 [6.299]	18 [0.709]	138 [5.433]	
80	25/40	160 [6.299]			24 [0.945]				

Measuring ranges,gauge pressure

Overview pressure ranges				
Type	pressure ranges(bar)	Accuracy (± of full scale value)	media	Burst Pressure
GP0.20	0...0.20	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

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

Order code

Order code					
Model	**Accuracy**	**Pressure ranges**	**Output**	**Process connection**	
PY 107	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	Dn50 PN4.0FR DN80 PN1.6FR	S1:Stainless steel 1.4435 [316L] S2: Stainless steel 1.4435 [316L], Sprayed PTFE S3: Hastelloy S4: Tantalum (chemistry)
Example order number **PY107-A020-GP40(0...40)bar-A-S1** PY 107 with DN50, 0.2%F.S, 4-20 mA, 0...10bar ,Stainless steel 1.4435 [316L]					