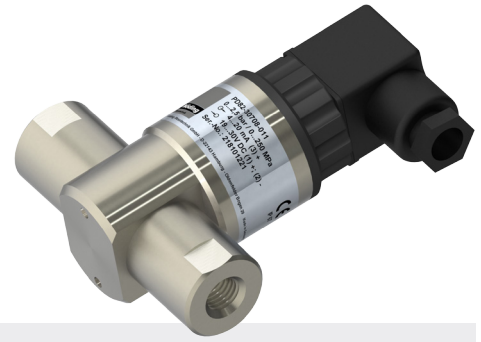


PD82



Nöding

Messtechnik

Datasheet Differential Pressure Transmitter PD82

PERFORMANCE FEATURES

- Dry ceramic sensor
- Smallest measuring range: 0...40 mbar
- Largest measuring range: 0...40 bar
- Accuracy $\leq 0,3\%$
- Robust industrial design
- Analogausgang: 4...20 mA, 3-wires
0...10 V, 3-wires

Equipped with two ceramic measuring cells, the differential pressure transmitter PD82 is particularly suitable for corrosive and abrasive media. The capacitive measuring principle enables a very accurate and long-term stable measurement. Its compact housing is made of high-quality stainless steel 1.4404 and is therefore suitable for almost all media. Our modular design concept provides a wide variety of products. Feel free to contact us if you need a customization that is not listed in this datasheet.

AREAS OF APPLICATION

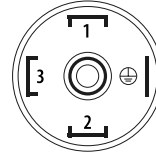
- Gaseous media
- Liquid media
- Abrasive media
- Corrosive media
- Aggressive media
- Level measurement in superimposed pressure tanks

TECHNICAL DATA

Measuring range	
Pressure range	See table "Measuring ranges" others on request
Output	
Analog output	4...20 mA 3-wires 0...10 V 3-wires
Power supply	
20 mA Output	9...30 V DC
10 V Output	15...30 V DC
Signal characteristics	
Accuracy	$\leq \pm 0,3 \% \text{ FS @ } 25^\circ\text{C}$
Long term stability	$\leq \pm 0,2 \% \text{ FS/Year}$
Response time	200 ms - others on request
Switch-on time	< 1 s
Temperature coefficient	
Zero	$\leq \pm 0,015 \% \text{ FS/Kelvin}$
Span	$\leq \pm 0,01 \% \text{ FS/Kelvin}$
Temperature ranges	
Medium temperature	-25...100 °C
Surrounding temperature	0...70 °C
Storage temperature	-40...85 °C
Electrical protections	
Short-circuit resistance	Permanent
Reverse polarity protection	Protection against reverse polarity, but no function
Electromagnetic compatibility	Interference emissions and immunity acc. to EN 61326
Wetted materials	
Housing	Stainless steel 1.4404
Sensor	99.9% Ceramics Al_2O_3
Sensor seal	FPM (Viton), NBR, EPDM, FFKM
Surroundings	
Protection type	IP67
Exemplary weight	
PD82-30708-011 (figure p. 1)	Approx. 400 g

ELECTRICAL CONNECTION

Connector
EN 175301-803A



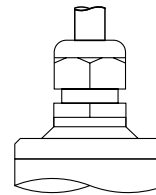
4...20 mA / 0...10 V 3-wires

PIN 1: in +

PIN 2: in -

PIN 3: out +

Cable connection



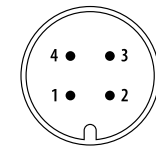
4...20 mA / 0...10 V 3-wires

red: in +

black: in -

white: out +

M12 connector



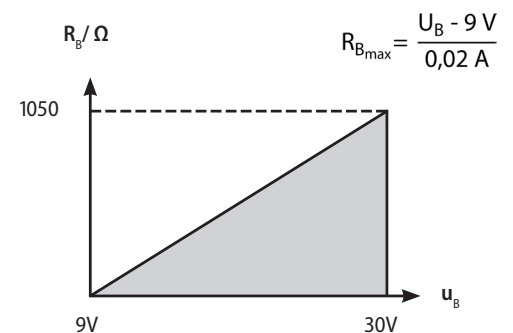
4...20 mA / 0...10 V 3-wires

PIN 1: in +

PIN 3: in -

PIN 4: out +

LOAD



ORDERING CODE

Output

- 1 0...10 V 3-wires
- 3 4...20 mA 3-wires

Ranges

Measuring ranges see table

- 99 Non-standard range (on request)

Process connection and material

- 0 2x G 1/4 inside, ISO 228-1, 1.4404

Sensor seal

- 1 FPM (Viton), standard
- 2 NBR (Perbuan)
- 3 EPDM
- 3 FFKM
- 9 Others (on request)

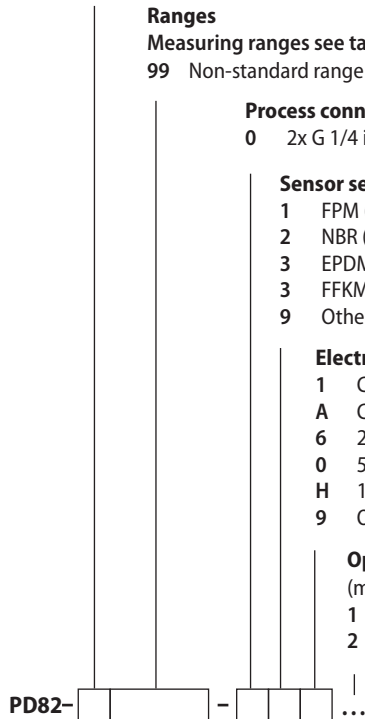
Electrical connection

- 1 Connector EN 175301-803A
- A Connector M12x1
- 6 2 m cable
- 0 5 m cable
- H 10 m cable
- 9 Others (on request)

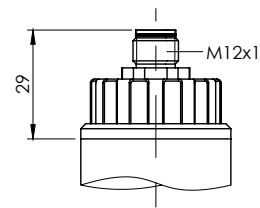
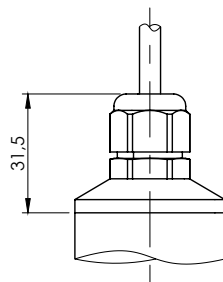
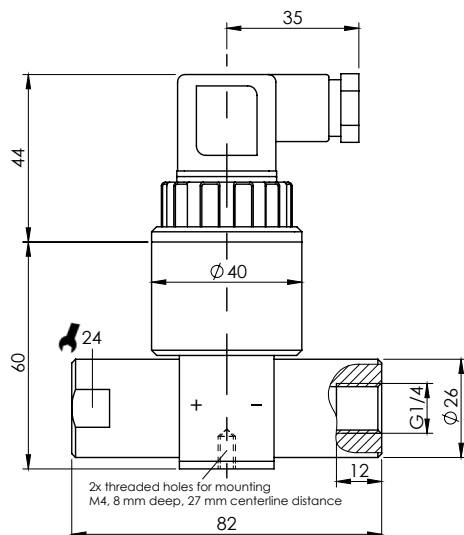
Options

(multiple possible)

- 1 Potted electronics
- 2 4...20 mA on pos- or neg-difference value



DIMENSIONS



EL. CONNECTION

TYPE 1

TYP 0

TYP A

MEASURING RANGE

Measuring ranges	Sensor range = max. static pressure ¹	Code	Overload ¹ (bar)
0...40 mbar / 0...4 kPa	100 mbar / 10 kPa	A800	-0,3/4
0...50 mbar / 0...5 kPa	100 mbar / 10 kPa	B000	-0,3/4
0...75 mbar / 0...7,5 kPa	100 mbar / 10 kPa	Y100	-0,3/4
0...100 mbar / 0...10 kPa	100 mbar / 10 kPa	0000	-0,3/4
0...100 mbar / 0...10 kPa	200 mbar / 20 kPa	00B1	-1/5
0...100 mbar / 0...10 kPa	400 mbar / 40 kPa	0003	-1/6
0...160 mbar / 0...16 kPa	200 mbar / 20 kPa	01B1	-1/5
0...160 mbar / 0...16 kPa	400 mbar / 40 kPa	0103	-1/6
0...200 mbar / 0...20 kPa	200 mbar / 20 kPa	B1B1	-1/5
0...200 mbar / 0...20 kPa	400 mbar / 40 kPa	B103	-1/6
0...250 mbar / 0...25 kPa	400 mbar / 40 kPa	0203	-1/6
0...250 mbar / 0...25 kPa	1 bar / 100 kPa	0205	-1/10
0...400 mbar / 0...40 kPa	0,4 bar / 40 kPa	0303	-1/6
0...400 mbar / 0...40 kPa	1 bar / 100 kPa	0305	-1/10
0...600 mbar / 0...60 kPa	1 bar / 100 kPa	0405	-1/10
0...600 mbar / 0...60 kPa	2 bar / 200 kPa	04B3	-1/15
0...1 bar / 0...100 kPa	1 bar / 100 kPa	0505	-1/10
0...1 bar / 0...100 kPa	2 bar / 200 kPa	05B3	-1/15
0...1 bar / 0...100 kPa	4 bar / 400 kPa	0508	-1/25
0...1,6 bar / 0...160 kPa	2 bar / 200 kPa	06B3	-1/15
0...1,6 bar / 0...160 kPa	4 bar / 400 kPa	0608	-1/25
0...2 bar / 0...200 kPa	2 bar / 200 kPa	B3B3	-1/15
0...2 bar / 0...200 kPa	4 bar / 400 kPa	B308	-1/25
0...2,5 bar / 0...250 kPa	4 bar / 400 kPa	0708	-1/25
0...2,5 bar / 0...250 kPa	10 bar / 1 MPa	0710	-1/40
0...4 bar / 0...400 kPa	4 bar / 400 kPa	0808	-1/25
0...4 bar / 0...400 kPa	6 bar / 600 kPa	0809	-1/40
0...4 bar / 0...400 kPa	10 bar / 1 MPa	0810	-1/40
0...6 bar / 0...600 kPa	6 bar / 600 kPa	0909	-1/40
0...6 bar / 0...600 kPa	10 bar / 1 MPa	0910	-1/40
0...6 bar / 0...600 kPa	20 bar / 2 MPa	09B5	-1/40
0...10 bar / 0...1 MPa	10 bar / 1 MPa	1010	-1/40
0...10 bar / 0...1 MPa	20 bar / 2 MPa	10B5	-1/40
0...16 bar / 0...1,6 MPa	20 bar / 2 MPa	11B5	-1/40
0...20 bar / 0...2 MPa	20 bar / 2 MPa	B5B5	-1/40
0...25 bar / 0...2 MPa	40 bar / 4 MPa	1213	-1/40
0...30 bar / 0...3 MPa	40 bar / 4 MPa	9913	-1/40
0...40 bar / 0...4 MPa	40 bar / 4 MPa	1313	-1/60

Measuring ranges	Sensor range = max. static pressure ¹	Code	Overload (bar)
-40...40 mbar / 0...4 kPa	100 mbar / 10 kPa	9999	-0,3/4
-50...50 mbar / 0...5 kPa	100 mbar / 10 kPa	BB000	-0,3/4
-75...75 mbar / 0...7,5 kPa	100 mbar / 10 kPa	BY100	-0,3/4
-100...100 mbar / 0...10 kPa	100 mbar / 10 kPa	B0000	-0,3/4
-100...100 mbar / 0...10 kPa	200 mbar / 20 kPa	B00B1	-1/5
-100...100 mbar / 0...10 kPa	400 mbar / 40 kPa	B0003	-1/6
-160...160 mbar / 0...16 kPa	200 mbar / 20 kPa	B01B1	-1/5
-160...160 mbar / 0...16 kPa	400 mbar / 40 kPa	B0103	-1/6
-200...200 mbar / 0...20 kPa	200 mbar / 20 kPa	BB1B1	-1/5
-200...200 mbar / 0...20 kPa	400 mbar / 40 kPa	BB103	-1/6
-250...250 mbar / 0...25 kPa	400 mbar / 40 kPa	B0203	-1/6
-250...250 mbar / 0...25 kPa	1 bar / 100 kPa	B0205	-1/10
-400...400 mbar / 0...40 kPa	0,4 bar / 40 kPa	B0303	-1/6
-400...400 mbar / 0...40 kPa	1 bar / 100 kPa	B0305	-1/10
-600...600 mbar / 0...60 kPa	1 bar / 100 kPa	B0405	-1/10
-600...600 mbar / 0...60 kPa	2 bar / 200 kPa	B04B3	-1/15
-1...1 bar / 0...100 kPa	1 bar / 100 kPa	B0505	-1/10
-1...1 bar / 0...100 kPa	2 bar / 200 kPa	B05B3	-1/15
-1...1 bar / 0...100 kPa	4 bar / 400 kPa	B0508	-1/25
-1,6...1,6 bar / 0...160 kPa	2 bar / 200 kPa	B06B3	-1/15
-1,6...1,6 bar / 0...160 kPa	4 bar / 400 kPa	B0608	-1/25
-2...2 bar / 0...200 kPa	2 bar / 200 kPa	BB3B3	-1/15
-2...2 bar / 0...200 kPa	4 bar / 400 kPa	BB308	-1/25
-2,5...2,5 bar / 0...250 kPa	4 bar / 400 kPa	B0708	-1/25
-2,5...2,5 bar / 0...250 kPa	10 bar / 1 MPa	B0710	-1/40
-4...4 bar / 0...400 kPa	4 bar / 400 kPa	B0808	-1/25
-4...4 bar / 0...400 kPa	6 bar / 600 kPa	B0809	-1/40
-4...4 bar / 0...400 kPa	10 bar / 1 MPa	B0810	-1/40
-6...6 bar / 0...600 kPa	6 bar / 600 kPa	B0909	-1/40
-6...6 bar / 0...600 kPa	10 bar / 1 MPa	B0910	-1/40
-6...6 bar / 0...600 kPa	20 bar / 2 MPa	B09B5	-1/40
-10...10 bar / 0...1 MPa	10 bar / 1 MPa	B1010	-1/40
-10...10 bar / 0...1 MPa	20 bar / 2 MPa	B10B5	-1/40
-16...16 bar / 0...1,6 MPa	20 bar / 2 MPa	B11B5	-1/40
-20...20 bar / 0...2 MPa	20 bar / 2 MPa	BB5B5	-1/40
-25...25 bar / 0...2 MPa	40 bar / 4 MPa	B1213	-1/40
-30...30 bar / 0...3 MPa	40 bar / 4 MPa	B9913	-1/40
-40...40 bar / 0...4 MPa	40 bar / 4 MPa	B1313	-1/60

¹either side