

IP12



Data sheet Pressure Transmitter IP12

PERFORMANCE FEATURES

- High overload capability
- Dry capacitive ceramic sensor
- Smallest measuring range: 0...100 mbar
- Largest measuring range: 0...60 bar
- Negative pressure measuring range: up to -1 bar
- Accuracy $\leq 0,35\%$
- Compact and rugged design
- Analog output: 4...20 mA, 2-wires
0...10 V, 3-wires
0...5 V, 3-wires
0,5...4,5 V, 3-wires ratiometric

AREAS OF APPLICATION

- Gaseous media
- Liquid media
- Hygiene applications
- Abrasive media
- Aggressive Medien
- Vacuum applications

The compact Model IP12 features a capacitive ceramic sensor with high accuracy and overload capability. No matter the range the sensor is always vacuum resistant.

In combination with a laser-welded stainless steel housing, the transmitter is resistant to aggressive as well as abrasive media.

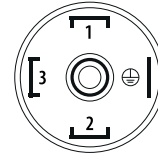
Our modular design concept provides a wide variety of products. Feel free to contact us if you need a customization that is not listed in this data sheet.

TECHNICAL DATA

Pressure range	See table „Measuring ranges“ others on request
Analog output	4...20 mA 2-wires 0...10 V 3-wires 0...5 V 3-wires 0,5...4,5 V 3-wires, ratiometric
20 mA Output	9...30 V DC
5 V Output	9...30 V DC
10 V Output	15...30 V DC
4,5 V Output	5 V DC
Accuracy	$\leq \pm 0,35 \% \text{ FS @ } 25^\circ$ $\leq \pm 0,5 \% \text{ FS @ } 25^\circ \text{C} \leq 0...200 \text{ mba}$
Long term stability	$\leq \pm 0,3 \% \text{ F / Year}$
Response time	200 ms - others on request
Swich-on time	< 1 s
Zero	$\leq \pm 0,02 \% \text{ F / Kelvin}$ $\leq \pm 0,03\% \text{ FS/K} < 0...200 \text{ mba}$
Span	$\leq \pm 0,02 \% \text{ F / Kelvin}$
Medium temperature	-25...100 °
Surrounding temperature	-25...80 °C
Storage temperature	-40...85 °C
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	
Process connection	Stainless steel 1.4404
Sensor	Ceramic Al_2O_3
Sensor seal	FPM (Viton), NBR, EPDM, FFKM (Chemraz / Kalrez)
Surroundings	
Protection type	IP 67
Exemplary weight	
IP12-4B1-D1A0 (figure p. 1)	Approx. 150 g

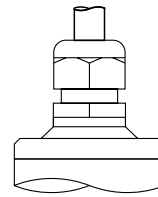
ELECTRICAL CONNECTION

Connector
EN 175301-803A



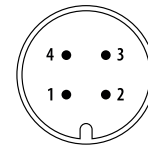
4...20 mA 2-wires
PIN 1: Signal +
PIN 2: Signal -
0...10 V 3-wires
PIN 1: in +
PIN 2: in -
PIN 3: out +

Cable connection



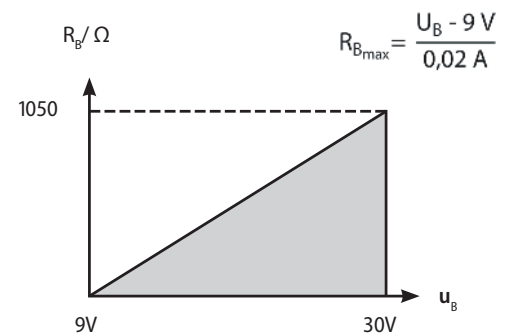
4...20 mA 2-wires
red: Signal +
black: Signal -
0...10 V 3-wires
red: in +
black: in -
white: out +

M12 Connector



4...20 mA 2-wires
PIN 1: Signal +
PIN 3: Signal -
0...10 V 3-wires
PIN 1: in +
PIN 3: in -
PIN 4: out +

LOAD



MEASURING RANGES

Measuring ranges	Relative	Absolute	Overload (bar)
0...100 mbar / 0...10 kPa *	00		-1/2
0...160 mbar / 0...16 kPa *	01		-1/2
0...200 mbar / 0...20 kPa*	B1		-1/2
0...250 mbar / 0...25 kPa	02		-1/2
0...400 mbar / 0...40 kPa	03		-1/2
0...500 mbar / 0...50 kPa	B7		-1/4
0...600 mbar / 0...60 kPa	04		-1/4
0...1 bar / 0...100 kPa	05		-1/4
0...1,6 bar / 0...160 kPa	06		-1/7
0...2 bar / 0...200 kPa	B3		-1/7
0...2,5 bar / 0...250 kPa	07		-1/10
0...3 bar / 0...300 kPa	X3		-1/10
0...4 bar / 0...400 kPa	08		-1/10
0...5 bar / 0...500 kPa	F1		-1/21
0...6 bar / 0...600 kPa	09		-1/21
0...10 bar / 0...1 MPa	10		-1/30
0...10 bar / 0...1 MPa	HD		-1/105
0...16 bar / 0...1,6 MPa	11		-1/60
0...20 bar / 0...2 MPa	B5		-1/60
0...25 bar / 0...2,5 MPa	12		-1/105
0...40 bar / 0...4 MPa	13		-1/100
0...60 bar / 0...6 MPa	14		-1/210
-100...0 mbar / -10...0 kPa*	C4		-1/2
-100...100 mbar / -10...10kPa*	C5		-1/2
-1...1 bar / -100...100 kPa	D6		-1/7
-1...3 bar / -100...300 kPa	D8		-1/21
-1...5 bar / -100...500kPa	D9		-1/21
-1...9 bar / -100...900kPa	E1		-1/30
-1...15 bar / -100...1,5 MPa	E2		-1/60
-1...19 bar / -100...1,9 MPa	E3		-1/60
-1...25 bar / -100...2,5 MPa	E7		-1/105

* Accuracy 0,5%, Temperature coeff. $\leq \pm 0,03\%$ FS/K (Zero)

ORDERING CODE

Output signal

- 1 0...10 V 3-wires
- 4 4...20 mA 2-wires
- 8 0...5 V 3-wires
- A 0,5...4,5 V 3-wires, ratiometric
- B 0,5...4,5 V 3-Leiter, 9 - 30 V supply

Ranges

Measuring ranges see table

- 99 Non-standard range (on request)

Process connection and material

- D G 1/4 A, DIN EN ISO 1179-2, 1.4404
- 3 G 1/2 B, EN 837-1, 1.4404
- G G 1/2 A a. 11,6 mm drill hole, ISO 228-1, 1.4404
- 9 Others (on request)

Sensor seal

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

Electrical connection

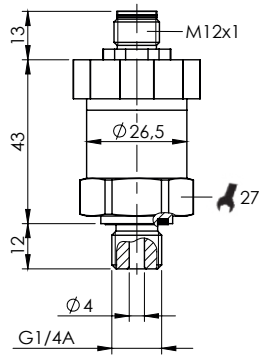
- 1 Connector EN 175301-803A
- A Connector M12x1 4-pole
- 6 2 m cable
- H 10 m cable
- R 25 m cable
- 9 Others (on request)

Options

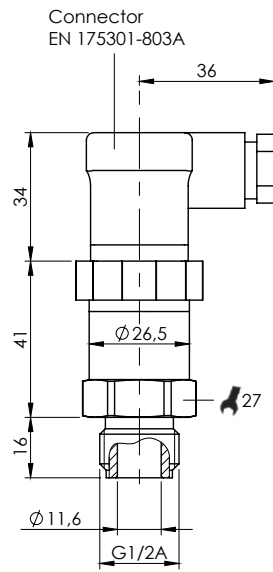
- 0 Without potted electronics
- 1 Potted electronics



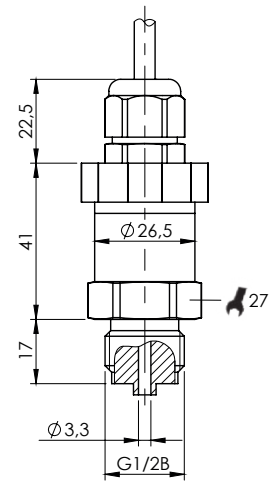
DIMENSIONS



PROCESS CONNECTION ■ TYPE D



■ TYPE G



■ TYP 3