

Pressure Transmitter EPS1



- 4..20 mA two-wire pressure transducer
- Ceramic cell made from Al₂O₃
- Pressure cell protected from mechanical damage
- Infinitely adjustably rotatable cable outlet for clean alignment

Characteristics

The EPS1 pressure transformer measures static and dynamic pressures in fluids and gases. The robust 100% metal construction makes it suitable for universal industrial use.

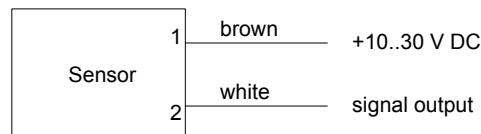
The pressure transformer consists of a measuring cell (four extension measurement cells using thick film technology applied to a ceramic substrate) and the converter / counter. This converts the bridge signal into a pressure-proportional 4..20 mA signal. The pressure cell is connected to the medium via a drilling with 8 mm diameter, and this construction protects it securely from mechanical damage.

Technical data

Sensor	ceramic cell with measuring bridge using thick film technology			
Process connection	male thread G 1/2 A or G 1/4 A			
Measurement ranges and pressure resistance	Range*		Over-pressure**	Burst pressure
	bar	psi	bar	bar
	0.. 1	0.. 14,5	5	6
	0.. 2	0.. 29,0	5	6
	0.. 5	0.. 72,5	7,5	15
	0.. 10	0.. 145	15	30
	0.. 20	0.. 290	30	60
	0.. 50	0.. 725	75	150
	0..100	0..1450	150	250
	*Optional measurement ranges on request All pressure values relative (differential pressure to the environment)			
	**The pressure transmitters may be loaded with the specified overpressure < 1 sec.			
Measurement accuracy	±1 % of final value; plus 0.05 %/K at < 0 °C and > 60 °C			
Repeatability	±0.5 % of full scale value			

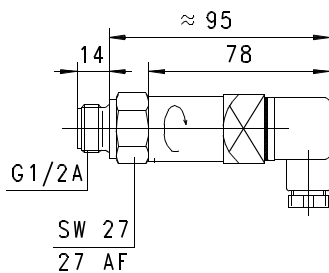
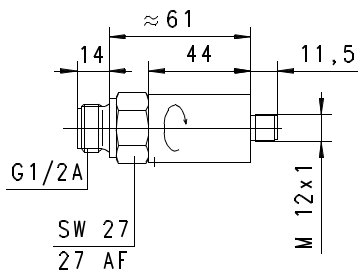
Media temperature	-20..+80 °C (with gooseneck option max. 120 °C)
Ambient temperature	-20..+70 °C
Storage temperature	-20..+80 °C
Media	fluids and gases
Material medium-contact	probe 1.4571, Al ₂ O ₃ , FKM
Materials non-medium-contact	CW614N, PP, NBR
Supply voltage	10..30 V DC ±10 %
Analog output	4..20 mA two-wire
Load	max. 800 Ohm at 24 V (100 Ohm at 10 V/1.1 kOhm at 30 V, linear at operating voltage)
Electrical connection	for round plug connector M12x1, 4-pole or plug DIN 43650-A / ISO 4400
Reversal polarity protected	yes
Ingress protection	IP 67 round plug connector IP 65 plug DIN 43650-A / ISO 4400
Weight	approx. 0.25 kg
Conformity	CE

Wiring

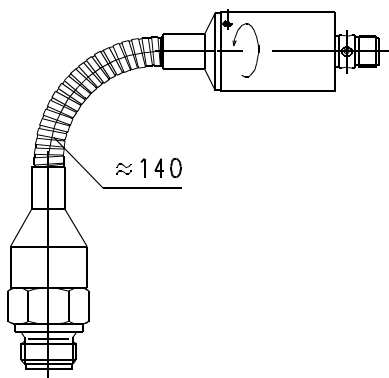


Before the electrical installation, it must be ensured that the supply voltage corresponds with the data sheet.

Dimensions



"Gooseneck" option for higher temperatures



Handling and operation

Installation

The pressure transformers are screwed into a nozzle or a T-piece in the pipework, using a suitable sealing material (e.g. Klingerit). The installation of the pressure sensor should result in no significant reduction of the cross-section of the pipework. When tightening the pressure sensor, use only the hexagonal spanner (SW27) specifically provided.

Avoid installation locations with high pressure surges (see overload limits).

In the high temperature model with flexible gooseneck, the pressure transformer can be operated up to a media temperature of 120 °C.

Ordering code

EPS1 - 1. 2. 3. 4. 5. 6. 7.

R K H

○ = Option

1. Measurement range	
001	0.. 1 bar
002	0.. 2 bar
005	0.. 5 bar
010	0.. 10 bar
020	0.. 20 bar
050	0.. 50 bar
100	0..100 bar
200	0..200 bar (on request)
400	0..400 bar (on request)
2. Pressure type	
R	relative pressure
3. Connection material	
K	stainless steel 1.4571
4. Mechanical connection	
008	G 1/4
015	G 1/2
5. Mechanical connection	
H	male thread
6. Electronic connection	
S	for round plug connector M12x1, 4-pole
B	○ plug DIN 43650-A / ISO 4400
7. Option	
H	○ model with gooseneck

Accessories

- Cable/round plug connector (K04... , KB04...) see additional information "Accessories"
- converter OMNI-TA