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EPS₁

Product Information

Pressure Transmitter



- 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

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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	Ra	nge*	Over- pressure**	Burst pressure	
pressure	bar	psi	bar	bar	
resistance	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	
	0100	01450	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	-20+80 °C			
temperature	(with gooseneck option max. 120 °C)			
Ambient	-20+70 °C			
temperature				
Storage	-20+80 °C			
temperature				
Media	fluids and gases			
Material	probe 1.4571, Al ₂ O ₃ , FKM			
medium-contact				
Materials	CW614N, PP, NBR			
non-medium-				
contact				
Supply voltage	1030 V DC ±10 %			
Analog output	420 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	for round plug connector M12x1, 4-pole			
connection	or plug DIN 43650-A / ISO 4400			
Reversal polarity protected	yes			

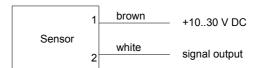
IP 67 round plug connector IP 65 plug DIN 43650-A / ISO 4400

Wiring

Weight

Conformity

Ingress protection



CE

approx. 0.25 kg

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

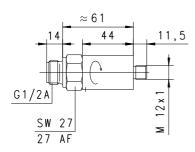
pi-ho_dr-eps1_e V1.02-06 1

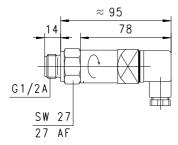
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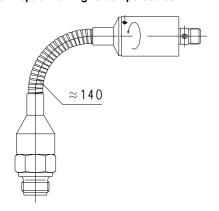
EPS1

Dimensions





"Gooseneck" option for higher temperatures



Handling and operation

Installation

2

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 $^{\circ}\text{C}.$

Ordering code

	1.	2.	3.	4.	5.	6.	7.
EPS1 -		R	K		Н		

O = 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	0100 bar			
	200	0200 bar (on request)			
	400	0400 bar (on request)			
2.	Pressure	e type			
	R	relative pressure			
3.	Connecti	nection material			
	K	stainless steel 1.4571			
4.	Mechanical connection				
	800	G ¹ / ₄			
	015	G ¹ / ₂			
5.	Mechanical connection				
	Н	male thread			
6.	Electronic connection				
	S	for round plug connector M12x1, 4-pole			
		plug DIN 43650-A / ISO 4400			
7.	Option				
	C H	model with gooseneck			

Accessories

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