# Honsberg Instruments GmbH

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# **Product Information**

# **Pressure Transmitter EPS**



- 4..20 mA two-wire pressure transducer
- Flush-front stainless steel membrane to protect against contamination
- Infinitely adjustably rotatable cable outlet for clean alignment

# Characteristics

The EPS pressure transducer measures static and dynamic pressures in fluids and gases. The sensor consists of a sputtered piezo-resistive measuring bridge made from polysilicon, on a mono-silicon membrane. Here, the flush stainless steel membrane transfers the pressure present via an oil filling to the silicon membrane.

The downstream, integrated electronics convert the bridge signal into a pressure-proportional 4..20 mA signal. The sensor is supplied with < 4 mA, so it was possible to implement a two-wire connection. At the same time, this process connection allows monitoring for wire breaks.

## Technical data

Sensor	thin film pressure measure on silicon membrane	urement bridge
Process	male thread G 1/2 A	
connection		
Metering ranges	(relative pressure, pressure difference from environment) in bar	
	Range	Overload
		pressure
	0 1.0	4
	0 2.5	10
	0 6.0	24
	0 10.0	40
	0 25.0	100
	0 60.0	240
	0100.0	400
	0250.0	600
	0400.0	600
	other metering ranges, absolute pressure meas (not less than 10 mbar a request	

INSTRUMENTS_	
	EPS

Measurement accuracy			
Repeatability ±0.5 % of full scale value  Pressure resistance  Media temperature -20+70 °C (with gooseneck option max. 100 °C)  Ambient temperature  Storage temperature  Media fluids and gases  Materials medium-contact  Materials, non- medium-contact  Supply voltage  Analog output  Load  Max. 800 Ohm at 24 V (100 Ohm at 10 V / 1.1 kOhm at 30 V, linear at operating voltage)  Electrical connection  Reversal polarity protected  Ingress protection  Weight  P. Sw of full scale value Corresponds to metering range corresponds to metering range  Cwith gooseneck option max. C (with gooseneck option max.  C (with gooseneck option max.  C (with gooseneck option max.  C (with gooseneck option max.  L (00 °C)  Electrial c (00 °C) C (with gooseneck option max.  I (with gooseneck option max.  C (with gooseneck option max.  I (with gooseneck option max.  C (with gooseneck option max.  I (with gooseneck option max.  C (with gooseneck option max.  I (with gooseneck option max.  C (with gooseneck option max.  C (with gooseneck opt	Measurement	_ , , , , , , , , , , , , , , , , , , ,	
Pressure resistance  Media temperature -20+70 °C (with gooseneck option max. 100 °C)  Ambient -20+70 °C temperature  Storage -20+80 °C temperature  Media fluids and gases  Materials pressure sensor 1.4301  medium-contact  Materials, 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 connection ground plug connector M12x1, 4-pole or DIN 43650-A plug  Reversal polarity protected  Ingress protection IP 67 round plug connector IP 65 plug DIN 43650-A / ISO 4400  Weight approx. 0.3 kg	accuracy	from 60 °C plus 0.02 %/K	
resistance  Media temperature -20+70 °C (with gooseneck option max. 100 °C)  Ambient -20+70 °C temperature  Storage -20+80 °C temperature  Media fluids and gases  Materials medium-contact  Materials, 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 connection  Reversal polarity protected  Ingress protection  IP 67 round plug connector IP 65 plug DIN 43650-A / ISO 4400  Weight  weight  Cultiple option max. With gooseneck option max.  C (with gooseneck option max.  C (with gooseneck option max.  100 °C)  (with gooseneck option max.  100 °C)  Weight approx. 0 1.430 °C  Two C  Two C  Two In House May 1.430 I  Two C  Two In House May 1.430 I  Two In House May 1.430 I  Two C  Two In House May 1.430 I  Two In House May 1	Repeatability	±0.5 % of full scale value	
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Ambient temperature  Storage	resistance		
Ambient temperature  Storage	Media temperature		
temperature  Storage temperature  Media fluids and gases  Materials medium-contact  Materials, non- medium-contact  Supply voltage Analog output Load  Materials medium-contact  Supply voltage 1030 V DC ±10 %  Analog output 420 mA two-wire  Load  Materials Materials, non- medium-contact  Supply voltage 1030 V DC ±10 %  Analog output 420 mA two-wire  Load  Materials M		,	
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Media       fluids and gases         Materials medium-contact       pressure sensor 1.4301         Materials, nonmedium-contact       CW614N, PP, NBR         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 connection       for round plug connector M12x1, 4-pole or DIN 43650-A plug         Reversal polarity protected       yes         Ingress protection       IP 67 round plug connector IP 65 plug DIN 43650-A / ISO 4400         Weight       approx. 0.3 kg	Storage	-20+80 °C	
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connection or DIN 43650-A plug  Reversal polarity yes protected  Ingress protection IP 67 round plug connector IP 65 plug DIN 43650-A / ISO 4400  Weight approx. 0.3 kg		linear at operating voltage)	
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Ingress protection IP 67 round plug connector IP 65 plug DIN 43650-A / ISO 4400  Weight approx. 0.3 kg	connection	or DIN 43650-A plug	
Ingress protection IP 67 round plug connector IP 65 plug DIN 43650-A / ISO 4400  Weight approx. 0.3 kg		yes	
IP 65 plug DIN 43650-A / ISO 4400   Weight	protected		
Weight approx. 0.3 kg	Ingress protection		
Conformity   CE	Weight	approx. 0.3 kg	
	Conformity	CE	

### Wiring

	1_	brown	- +1030 V DC
Sensor	2	white	signal output

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

It is recommended to use shielded wiring.

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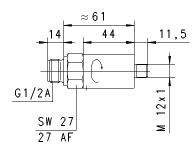
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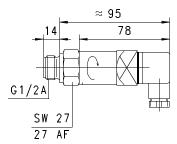
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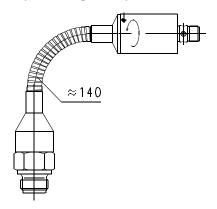
# **Product Information**

# **Dimensions**





### "Gooseneck" option for higher temperatures



# Handling and operation

#### Installation

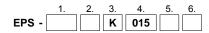
The protective plastic cap is to be removed from the pressure membrane. Attention! The pressure membrane is very sensitive; a deformed membrane has a negative effect on the accuracy or causes damage to the sensor.

The pressure sensors 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 transducer can be operated up to a media temperature of 100  $^{\circ}\text{C}.$ 

# Ordering code



#### O = Option

1.	Metering range			
	001	0 1.0 bar		
	002	0 2.5 bar		
	006	0 6.0 bar		
	010	0 10.0 bar		
	025	0 25.0 bar		
	060	0 60.0 bar		
	100	0 100.0 bar		
	250	0 250.0 bar		
	400	0 400.0 bar		
2.	Pressure	re type		
	R	relative pressure		
	Α	absolute pressure		
3.	Connecti	ection material		
	K	stainless steel 1.4571		
4.	Connecti	nnection size		
	015	male thread G <sup>1</sup> / <sub>2</sub> A		
5.	Electronic connection			
	S	for round plug connector M12x1, 4-pole		
	в о	plug DIN 43650-A / ISO 4400		
6.	Option			
	H O	model with gooseneck		

# Accessories

- Cable/round plug connector (KB...) see additional information "Accessories"
- converter / counter OMNI-TA

