

**Product Information**

**EPS1**

# Pressure Transmitter EPS1



- 4..20 mA two-wire pressure transducer
- Ceramic cell made from Al<sub>2</sub>O<sub>3</sub>
- 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.

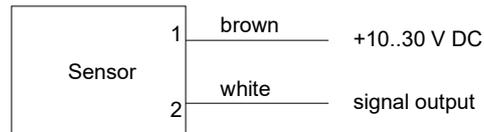
The pressure transformer consists of a measuring cell (four extension measurement cells using thick film technology applied to a ceramic substrate) and the converter / counter. This converts the bridge signal into a pressure-proportional 4..20 mA signal. The pressure cell is connected to the medium via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

**Technical data**

|   |  |           |                 |                |
|---|--|-----------|-----------------|----------------|
| <b>Sensor</b>                                     | ceramic cell with measuring bridge using thick film technology   |           |                 |                |
| <b>Process connection</b>                         | male thread G 1/2 A or G 1/4 A   |           |                 |                |
| <b>Measurement ranges and pressure resistance</b> | 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<br>All pressure values relative (differential pressure to the environment) |           |                 |                |
|   | **The pressure transmitters may be loaded with the specified overpressure < 1 sec.                                 |           |                 |                |
| <b>Measurement accuracy</b>                       | ±1 % of final value;<br>plus 0.05 %/K at < 0 °C and > 60 °C  |           |                 |                |
| <b>Repeatability</b>                              | ±0.5 % of full scale value   |           |                 |                |

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

**Wiring**

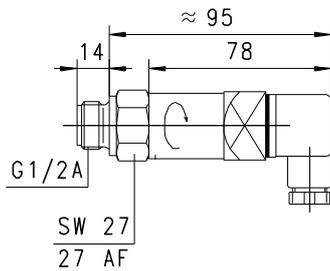
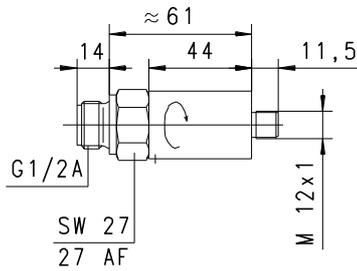


Before the electrical installation, it must be ensured that the supply voltage corresponds with the data sheet.

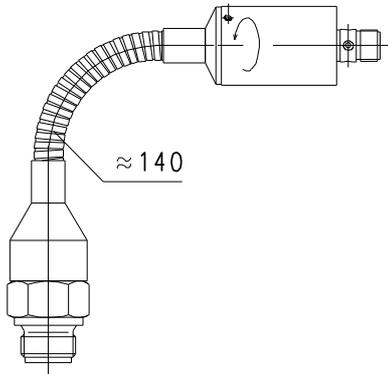
## Product Information

EPS1

### 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.  R  3.  K  4.  5.  H  6.  7.

○ = 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