



## Datasheet Pressure Transmitter P20

### PERFORMANCE FEATURES

- Flush process connection
- High overload capability
- Dry ceramic sensor
- Accuracy  $\leq 0,2\%$
- Smallest measuring range: 0...50 mbar
- Largest measuring range: 0...40 bar
- Negative pressure measuring range: up to -1 bar
- Analog output: 4...20 mA, 2-wires  
0...10 V 3-wires
- Optional for media up to 125 °C

### AREAS OF APPLICATION

- Viscous and pasty media
- Hygiene applications
- Liquid media
- Gaseous media
- Aggressive Media

The P20 pressure transmitter is designed for use in applications where media tend to deposit and clog the sensor. A compact front-flush process connection prevents hidden edges and drill holes, in combination with a resistant ceramic sensor, optimal cleaning and maintenance can be ensured. The capacitive measuring principle enables a very accurate and long-term stable measurement, even at lowest pressures and high overload resistance. Its compact housing is made of high-quality stainless steel 1.4404 and is therefore suitable for almost all 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 Datasheet.

### 2. GENERATION

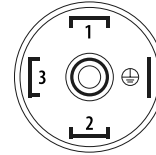
- Improved signal characteristics
- Lower temperature effect
- Increased electromagnetic compatibility
- Shorter design
- 1:1 exchangeable with 1st generation

## TECHNICAL DATA

| Measuring range               |   |
|-------------------------------|---|
| Pressure range                | see table „Measuring ranges“<br>others on request   |
| Output                        |   |
| Analog output                 | 4 ... 20 mA 2-wires<br>0 ... 10 V 3-wires   |
| Power supply                  |   |
| 20 mA output                  | 9 ... 30 V DC   |
| 10 V output                   | 15 ... 30 V DC  |
| Signal characteristics        |   |
| Accuracy                      | $\leq \pm 0,2 \% \text{ FS @ } 25^\circ\text{C}$<br>$\leq \pm 0,5 \% \text{ FS @ } 25^\circ\text{C}$ at pressure range < 100 mbar |
| Long term stability           | $\leq \pm 0,2 \% \text{ FS/Year}$   |
| Response time                 | 200 ms - others on request  |
| Swich-on time                 | < 1 s   |
| Temperature coefficient       |   |
| Nullpunkt                     | $\leq \pm 0,01 \% \text{ FS/Kelvin}$  |
| Spanne                        | $\leq \pm 0,01 \% \text{ FS/Kelvin}$  |
| Temperature ranges            |   |
| Medium temperature            | -25 ... 100 °C<br>-25 ... 125 °C high temperature version   |
| Surrounding temperature       | -25 ... 80 °C<br>-25 ... 85 °C high temperature version   |
| Storage temperature           | -40 ... 85 °C   |
| Electrical protections        |   |
| 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 $\text{Al}_2\text{O}_3$   |
| Sensor seal                   | FPM (Viton), EPDM, FFKM (Chemraz / Kalrez)  |
| Surroundings                  |   |
| Protection type               | IP 67   |
| Exemplary weight              |   |
| P20-400-1110 (figure p. 1)    | Approx. 150 g   |

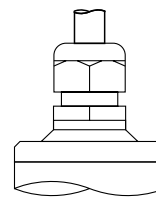
## ELECTRICAL CONNECTION

Connector  
EN 175301-803A



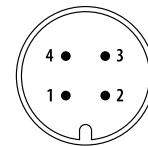
**4 ... 20 mA 2-wires**  
 PIN 1: Signal +  
 PIN 2: Signal -  
**0 ... 10 V 3-wires**  
 PIN 1: in +  
 PIN 2: in -  
 PIN 3: out +

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

