

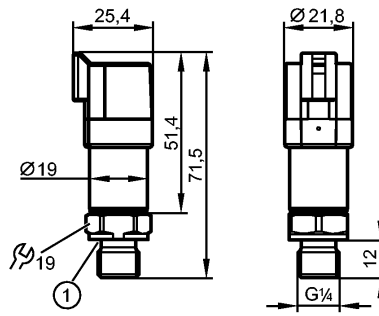


# PT5704

PT-010-SEG14-A-ZVG/DE



Pressure sensors



1: Process connection sealing HNBR / DIN 3869



### Product characteristics

Electronic pressure sensor

for mobile applications

DEUTSCH connector DT04-3P

E1 compliant

Process connection: G 1/4 A (according to DIN EN ISO 1179-2)

Analog output

Measuring range: 0...10 bar

### Application

|                              |   |
|------------------------------|---|
| Application                  | Type of pressure: relative pressure<br>Group 2 fluids according to the Pressure Equipment Directive (PED),<br>group 1 fluids on request |
| Pressure rating [bar]        | 25 (static)   |
| Bursting pressure min. [bar] | 300   |
| Vacuum resistance [mbar]     | -1000   |
| Medium temperature [°C]      | -40...125   |

### Electrical data

|                             |                  |
|-----------------------------|------------------|
| Electrical design           | DC               |
| Operating voltage [V]       | 8...32 DC        |
| Insulation resistance [MΩ]  | > 100 (500 V DC) |
| Protection class            | III              |
| Reverse polarity protection | yes              |

### Outputs

|                     |                                  |
|---------------------|----------------------------------|
| Output              | Analog output                    |
| Output function     | 4...20 mA analog                 |
| Short-circuit proof | yes                              |
| Overload protection | yes                              |
| Max. load [Ω]       | (U <sub>b</sub> - 8 V) / 0.02 A  |
| Min. load [Ω]       | (U <sub>b</sub> - 24 V) / 0.02 A |



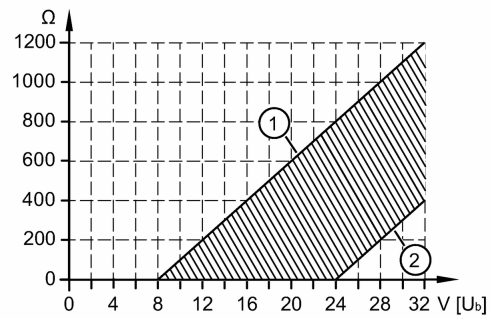
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Characteristic load curve current output



1: Max. load; 2: Min. load

### Measuring / setting range

Measuring range [bar] 0...10

### Accuracy / deviations

Accuracy / deviations (in % of the span)

Characteristics deviation \*)  $< \pm 0.8$

Linearity  $< \pm 0.25$  (BFSL) /  $< \pm 0.5$  (LS)

Hysteresis  $< \pm 0.2$

Repeatability \*\*)  $< \pm 0.05$

Long-term stability \*\*\*)  $< \pm 0.1$

Temperature coefficients (TEMPCO) in the temperature range -40...125° C (in % of the span per 10 K)

Greatest TEMPCO of the zero point  $< \pm 0.1$  (0...80 °C);  $< \pm 0.2$  (-40...0 °C / 80...125 °C)

Greatest TEMPCO of the span  $< \pm 0.1$  (0...80 °C);  $< \pm 0.2$  (-40...0 °C / 80...125 °C)

### Reaction times

Step response time analogue output [ms] 2

### Environment

Ambient temperature [°C] -40...100

Storage temperature [°C] -40...100

Protection IP 67 / IP 69K

### Tests / approvals

Pressure equipment directive sound engineering practice

EMC  
Conforms to UN ECE 10 rev. 4  
ISO 11452-2 100 V/m  
DIN EN 61326-1

Shock resistance DIN EN 60068-2-27 500 g (1 ms)

Vibration resistance DIN EN 60068-2-6 20 g (10...2000 Hz)

MTTF [Years] 700

### Mechanical data

Process connection G ¼ A (according to DIN EN ISO 1179-2)

Process connection sealing HNBR (to DIN 3869)

Materials (wetted parts) 1.4542 (17-4 PH / 630)<sup>2</sup>

Housing materials 1.4542 (17-4 PH / 630)<sup>2</sup>; stainless steel (316L / 1.4404); PPS

Min. pressure cycles 60 millions in the course of the lifetime (at 1.2 times the nominal pressure)

Tightening torque [Nm] 25...35 (recommended tightening torque<sup>1</sup>)

Restrictor element integrated yes



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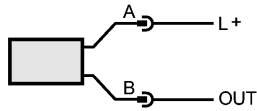
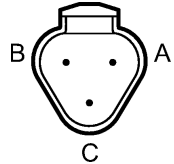
|        |      |       |
|--------|------|-------|
| Weight | [kg] | 0.061 |
|--------|------|-------|

### Electrical connection

|            |                           |  |
|------------|---------------------------|--|
| Connection | DEUTSCH connector DT04-3P |  |
|------------|---------------------------|--|

|                   |     |    |
|-------------------|-----|----|
| Max. cable length | [m] | 30 |
|-------------------|-----|----|

### Wiring



OUT: 4...20 mA

### Remarks

|         |   |
|---------|---|
| Remarks | <p>*) incl. drift when overtightened, zero point and span error, non-linearity, hysteresis</p> <p>**) with temperature fluctuations &lt; 10 K</p> <p>***) in% of the span / 6 months</p> <p>1) Depends on lubrication, seal and pressure rating</p> <p>2) Characteristics similar to stainless steel (e.g. 304/1.4301) but higher strength.</p> <p>BFSL = Best Fit Straight Line / LS = Limit Value Setting</p> |
|---------|---|

|               |         |   |
|---------------|---------|---|
| Pack quantity | [piece] | 1 |
|---------------|---------|---|