

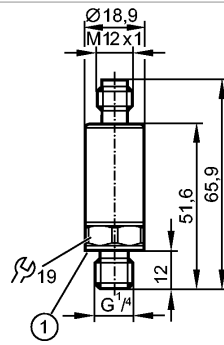


# PT5404

PT-010-SEG14-A-ZVG/US/ /W



Pressure sensors



1: Process connection sealing FKM / DIN 3869



## Product characteristics

Electronic pressure sensor

for industrial applications

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

Analog output

Measuring range: 0...10 bar

## Application

Application

Type of pressure: relative pressure  
Group 2 fluids according to the Pressure Equipment Directive (PED),  
group 1 fluids on request

Pressure rating [bar]

25 (static)

Bursting pressure min. [bar]

300

Vacuum resistance [mbar]

-1000

Medium temperature [°C]

-40...90

## Electrical data

Electrical design

DC

Operating voltage [V]

8.5...36 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

Analog output

4...20 mA

Max. load [Ω]

( $U_b - 8.5 \text{ V}$ ) / 21.5 mA; 720 at  $U_b = 24 \text{ V}$

## Measuring / setting range

Measuring range [bar]

0...10

## Accuracy / deviations

Accuracy / deviations  
(in % of the span)

Characteristics deviation \*)

< ± 0.5

Linearity

< ± 0.1 (BFSL) / < ± 0.2 (LS)

Hysteresis

< ± 0.2

Repeatability \*\*)

< ± 0.05



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|  |  |
|--|--|
| Long-term stability <sup>***)</sup>  | < ± 0.1                                    |
| Temperature coefficients (TEMPCO) in the temperature range -40...90° C (in % of the span per 10 K) |  |
| Greatest TEMPCO of the zero point + span   | < 0.1 (-25...90 °C) / < 0.2 (-40...-25 °C) |

### Reaction times

|   |   |
|---|---|
| Step response time analogue output [ms] | 1 |
|---|---|

### Environment

|                          |                |
|--------------------------|----------------|
| Ambient temperature [°C] | -40...90       |
| Storage temperature [°C] | -40...100      |
| Protection               | IP 67 / IP 69K |

### Tests / approvals

|                              |                                      |                     |
|------------------------------|--------------------------------------|---------------------|
| Pressure equipment directive | sound engineering practice           |                     |
| EMC                          | DIN EN 61000-6-2<br>DIN EN 61000-6-3 |                     |
| Shock resistance             | DIN EN 60068-2-27                    | 50 g (11 ms)        |
| Vibration resistance         | DIN EN 60068-2-6                     | 20 g (10...2000 Hz) |
| MTTF [Years]                 | 686                                  |                     |

### Mechanical data

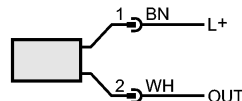
|                               |   |  |
|-------------------------------|---|--|
| Process connection            | G ¼ A (according to DIN EN ISO 1179-2)  |  |
| Process connection sealing    | FKM (to DIN 3869)   |  |
| Materials (wetted parts)      | 1.4542 (17-4 PH / 630) <sup>2)</sup>  |  |
| Housing materials             | 1.4542 (17-4 PH / 630) <sup>2)</sup> ; stainless steel (316L / 1.4404); PEI   |  |
| 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 | no  |  |
| Weight [kg]                   | 0.056   |  |

### Electrical connection

|            |               |
|------------|---------------|
| Connection | M12 connector |
|------------|---------------|

#### Wiring

Core colors  
 BN brown  
 WH white



OUT: 4...20 mA

The following pin connection is available on request:

pin 1: L+, pin 3: OUT

Colours to DIN EN 60947-5-2

### 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> |
|---------|---|



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**Pressure sensors**

BFSL = Best Fit Straight Line / LS = Limit Value Setting

Pack quantity

[piece]

1

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