

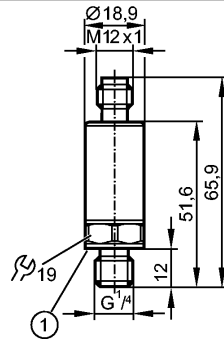


# PT5504

PT-010-SEG14-A-ZVG/US



Pressure sensors



1: Process connection sealing HNBR / DIN 3869



## Product characteristics

Electronic pressure sensor

M12 connector

for mobile applications

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  
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...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



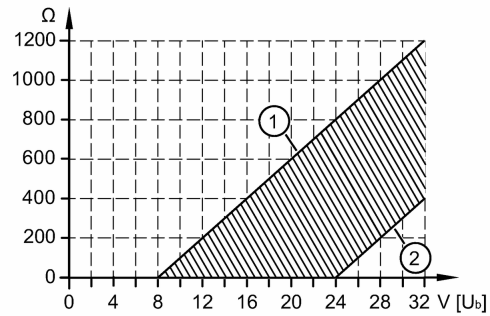
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Pressure sensors

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 30 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] 704

### 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); 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 yes



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Weight	[kg]	0.058
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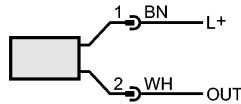
### Electrical connection

Connection	M12 connector
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Max. cable length	[m]	30
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#### Wiring

Core colors  
 BN brown  
 WH white



OUT: 4...20 mA  
 Colours to DIN EN 60947-5-2

### Remarks

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