

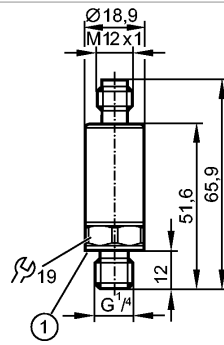


PT5401

PT-250-SEG14-A-ZVG/US/ IW



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...250 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]

625 (static)

Bursting pressure min. [bar]

1200

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]

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

Measuring / setting range

Measuring range [bar]

0...250

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 (***)	< ± 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
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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 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

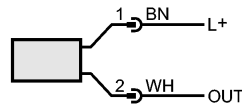
Process connection	G ¼ A (according to DIN EN ISO 1179-2)	
Process connection sealing	FKM (to DIN 3869)	
Materials (wetted parts)	1.4542 (17-4 PH / 630) ²	
Housing materials	1.4542 (17-4 PH / 630) ² ; stainless steel (316L / 1.4404); PEI	
Min. pressure cycles	60 millions in the course of the lifetime (at 1.2 times the nominal pressure)	
Tightening torque [Nm]	25...35 (recommended tightening torque ¹)	
Restrictor element integrated	no	
Weight [kg]	0.057	

Electrical connection

Connection	M12 connector
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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 < 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