

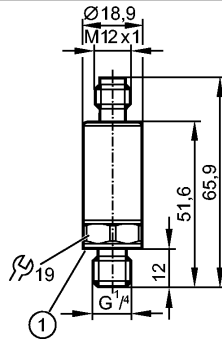


PT5414

PT-016-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...16 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]

40 (static)

Bursting pressure min. [bar]

450

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]

($U_b - 8.5 V$) / 21.5 mA; 720 at $U_b = 24 V$

Measuring / setting range

Measuring range [bar]

0...16

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 ^{***}) $\lt; \pm 0.1$

Temperature coefficients (TEMPCO) in the temperature range -40...90° C (in % of the span per 10 K)

Greatest TEMPCO of the zero point + span $\lt; 0.1 (-25...90 \text{ } ^\circ\text{C}) / \lt; 0.2 (-40...-25 \text{ } ^\circ\text{C})$

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
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] 784

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 torque¹)

Restrictor element integrated no

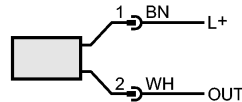
Weight [kg] 0.055

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 *) incl. drift when overtightened, zero point and span error, non-linearity, hysteresis
**) with temperature fluctuations $\lt; 10 \text{ K}$
***) 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.



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Pressure sensors

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

Pack quantity

[piece]

1