

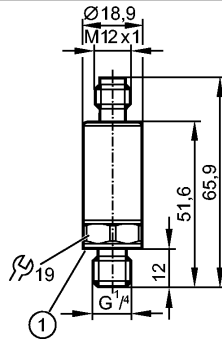


PU5401

PU-250-SEG14-B-DVG/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]

16...36 DC

Current consumption [mA]

< 12

Insulation resistance [MΩ]

> 100 (500 V DC)

Protection class

III

Reverse polarity protection

yes

Outputs

Output

Analog output

Output function

0...10 V analog

Short-circuit proof

yes

Overload protection

yes

Min. load resistance [Ω]

2000

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



PU5401

PU-250-SEG14-B-DVG/US/ IW

Pressure sensors

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

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] 762

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

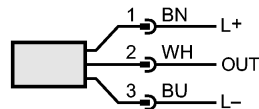
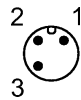
Weight [kg] 0.057

Electrical connection

Connection M12 connector

Wiring

Core colors
BN brown
BU blue
WH white



OUT: 0...10 V
Colours to DIN EN 60947-5-2

Remarks

Remarks *) incl. drift when overtightened, zero point and span error, non-linearity, hysteresis
**) with temperature fluctuations < 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

Pack quantity [piece] 1



PU5401

PU-250-SEG14-B-DVG/US/ W



Pressure sensors