

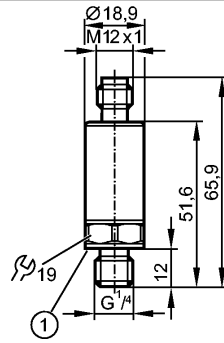


PT5503

PT-025-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...25 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]	65 (static)
Bursting pressure min. [bar]	600
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 _b - 8 V) / 0.02 A
Min. load [Ω]	(U _b - 24 V) / 0.02 A



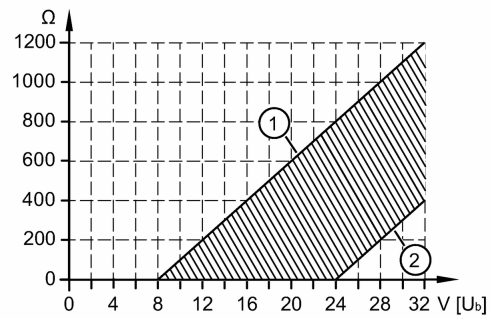
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Pressure sensors

Characteristic load curve current output



1: Max. load; 2: Min. load

Measuring / setting range

Measuring range [bar] 0...25

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 $-40...125^\circ\text{C}$ (in % of the span per 10 K)

Greatest TEMPCO of the zero point $< \pm 0.1$ ($0...80^\circ\text{C}$); $< \pm 0.2$ ($-40...0^\circ\text{C}$ / $80...125^\circ\text{C}$)

Greatest TEMPCO of the span $< \pm 0.1$ ($0...80^\circ\text{C}$); $< \pm 0.3$ ($-40...0^\circ\text{C}$); $< \pm 0.2$ ($80...125^\circ\text{C}$)

Reaction times

Step response time analogue output [ms] 2

Environment

Ambient temperature [$^\circ\text{C}$] $-40...100$

Storage temperature [$^\circ\text{C}$] $-40...100$

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 $\frac{1}{4}$ A (according to DIN EN ISO 1179-2)

Process connection sealing HNBR (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 yes



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Weight	[kg]	0.058
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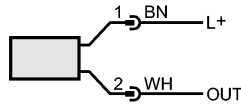
Electrical connection

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 < 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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