

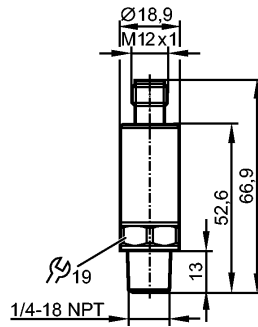


PT2415

PT-010PSEN14-A-ZVG/US/ IW



Pressure sensors



Product characteristics

Electronic pressure sensor

for industrial applications

Process connection: 1/4-18 NPT

Analog output

Measuring range: 0...100 psi

Application

Application	Type of pressure: relative pressure Group 2 fluids according to the Pressure Equipment Directive (PED), group 1 fluids on request	
Pressure rating	[psi]	250 (static)
Bursting pressure min.	[psi]	2900
Vacuum resistance	[psi]	-14.5
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	[psi]	0...100
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Accuracy / deviations

Accuracy / deviations (in % of the span)		
Characteristics deviation *)	< ± 0.5	
Linearity	< ± 0.1 (BFSL) / < ± 0.2 (LS)	
Hysteresis	< ± 0.2	



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Repeatability **)	< ± 0.05
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]	784	

Mechanical data

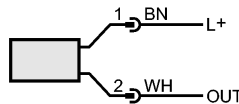
Process connection	1/4-18 NPT	
Materials (wetted parts)	1.4542 (17-4 PH / 630) ²	
Housing materials	1.4542 (17-4 PH / 630) ² ; stainless steel (316L / 1.4404); PEI	
Min. pressure cycles	60 millions in the course of the lifetime (at 1.2 times the nominal pressure)	
Tightening torque [Nm]	≤ 50 (recommended tightening torque ¹)	
Restrictor element integrated	no (can be retrofitted)	
Weight [kg]	0.055	

Electrical connection

Connection	M12 connector
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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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