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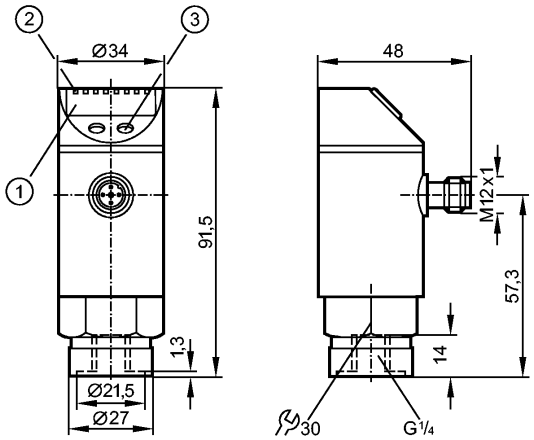
PN3006

PN-2.5-RBR14-MFPKG/US/ /V

Pressure sensors



1: 4-digit alphanumeric display
2: LEDs (display unit / switching status)
3: Programming button

Made in Germany

Product characteristics				
Combined pressure sensor				
Connector				
Process connection: G ¼ I				
Function programmable				
Switching output, Analogue output				
4-digit alphanumeric display				
Measuring range: 0...2.5 bar / 0...36.3 psi / 0...250 kPa				
Application				
Application		Type of pressure: relative pressure Liquids and gases		
Pressure rating		20 bar	290 psi	2000 kPa
Bursting pressure min.		50 bar	725 psi	5000 kPa
Medium temperature	[°C]	-25...80		
Electrical data				
Electrical design		DC PNP		
Operating voltage	[V]	18...36 DC ¹)		
Current consumption	[mA]	< 50		
Insulation resistance	[MΩ]	> 100 (500 V DC)		
Protection class		III		
Reverse polarity protection		yes		
Overvoltage protection	[V]	up to 40 V		
Outputs				
Output		Switching output, Analogue output		
Output function		normally open / closed programmable; 4...20 mA or 0...10 V		
Current rating	[mA]	250		
Voltage drop	[V]	< 2		
Short-circuit protection		pulsed		
Switching frequency	[Hz]	≤ 170		
Analogue output		4...20 mA / 0...10 V		

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Max. load	[Ω]	4...20 mA: max. 500 / 0...10 V: min. 2000		
Measuring / setting range				
Measuring range		0...2.5 bar	0...36.3 psi	0...250 kPa
Setting range				
Set point, SP		0.02...2.50 bar	0.4...36.2 psi	2...250 kPa
Reset point, rP		0.01...2.49 bar	0.2...36.0 psi	1...249 kPa
in steps of		0.01 bar	0.2 psi	1 kPa
Factory setting		SP1 = 0.63 bar; rP1 = 0.58 bar		
Accuracy / deviations				
Accuracy / deviations (in % of the span)				
Switch point accuracy		< ± 0.5		
Characteristics deviation *)		< ± 0.25 (BFSL) / < ± 0.5 (LS)		
Hysteresis		< ± 0.25		
Repeatability **)		< ± 0.1		
Long-term stability ***)		< ± 0.05		
Temperature coefficients (TEMPCO) in the temperature range -20...80° C (in % of the span per 10 K)				
Greatest TEMPCO of the zero point		0.2		
Greatest TEMPCO of the span		0.2		
Reaction times				
Power-on delay time	[s]	0.3		
Delay time programmable dS, dr	[s]	0; 0.2...50		
Response time analogue output	[ms]	< 3		
Integrated watchdog		yes		
Software / programming				
Programming options		hysteresis / window function; N.O. / N.C; on delay, off delay; damping; display unit; current / voltage output		
Environment				
Ambient temperature	[°C]	-20...80		
Storage temperature	[°C]	-40...100		
Protection		IP 65		
Tests / approvals				
EMC		EN 61000-4-2 ESD: EN 61000-4-3 HF radiated: EN 61000-4-4 Burst: EN 61000-4-5 Surge: EN 61000-4-6 HF conducted:	4 kV CD / 8 kV AD 10 V/m 2 kV 0.5/1 kV 10 V	
Shock resistance		DIN IEC 68-2-27:	50 g (11 ms)	
Vibration resistance		DIN IEC 68-2-6:	20 g (10...2000 Hz)	
MTTF	[Years]	213		
Mechanical data				
Process connection		G ¼ I		
Materials (wetted parts)		stainless steel (303S22); ceramics; FPM (Viton)		
Housing materials		stainless steel (304S15); stainless steel 316L / 1.4404; PC (Makrolon); PBT (Pocan); PEI; FPM (Viton); PTFE		
Switching cycles min.		100 million		
Weight	[kg]	0.261		

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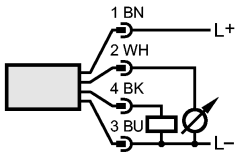
Displays / operating elements

Display	Display unit 3 x LED green Switching status LED yellow Function display 4-digit alphanumeric display Measured values 4-digit alphanumeric display

Electrical connection

Connection	M12 connector; Gold-plated contacts

Wiring



Remarks

Remarks	[1]) to EN50178, SELV, PELV *) BFSL = Best Fit Straight Line / LS = Limit Value Setting **) with temperature fluctuations < 10 K ***) in % of value of measuring range / 6 months
Pack quantity [piece]	1