

New generation available: PN3070

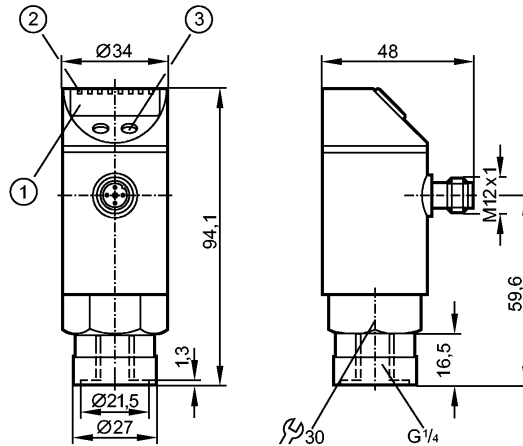
efectorsoo

PN3000



PN-400-SBR14-MFPKG/US/ V

Pressure sensors



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



Product characteristics

Combined pressure sensor

Quick disconnect

Function programmable

Process connection: G ¼ I

Switching output, Analog output

4-digit alphanumeric display

Measuring range: 0...400 bar / 0...5800 psi / 0...40 MPa

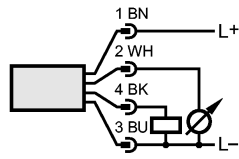
Application

Application	Type of pressure: relative pressure Liquids and gases Use in gases at pressures > 25 bar only after contacting the manufacturer ifm		
Pressure rating	600 bar	8700 psi	60 MPa
Bursting pressure min.	1000 bar	14500 psi	100 MPa
Medium temperature [°C]	-25...80		
Electrical data	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	Switching output, Analog 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	yes (non-latching)		
Switching frequency [Hz]	≤ 170		
Analog output	4...20 mA / 0...10 V		
Max. load [Ω]	4...20 mA: max. 500 / 0...10 V: min. 2000		
Measuring / setting range			

PN3000 - Combined pressure sensor - eclass: 27201302 / 27-20-13-02

Measuring range	0...400 bar	0...5800 psi	0...40 MPa
Setting range			
Set point, SP	4...400 bar	60...5790 psi	0.4...40.0 MPa
Reset point, rP	2...398 bar	30...5760 psi	0.2...39.8 MPa
in steps of	2 bar	30 psi	0.2 MPa
Factory setting	SP1 = 100 bar; rP1 = 92 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 0...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 analog 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 67		
Tests / approvals			
EMC	EN 61000-4-2 ESD: 4 kV CD / 8 kV AD EN 61000-4-3 HF radiated: 10 V/m EN 61000-4-4 Burst: 2 kV EN 61000-4-5 Surge: 0.5/1 kV EN 61000-4-6 HF conducted: 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); EPDM/X (Santoprene)		
Switching cycles min.	100 million		
Weight [kg]	0.273		
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			

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Remarks
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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