

Article discontinued as of 31.December 2016

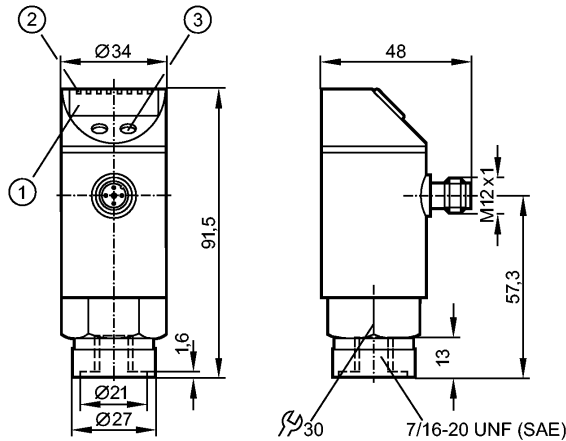
efectorsoo

PN7303



PN-025-RBU76-QFRKG/US/ IV

Pressure sensors



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

CE IO-Link

Product characteristics

Electronic pressure monitor

Quick disconnect

Function programmable

Process connection: 7/16-20 UNF (SAE)

2 outputs

OUT1 = switching output

OUT2 = switching output or diagnostic output

4-digit alphanumeric display

Measuring range: 0...25 bar / 0...363 psi / 0...2.5 MPa

Application

Application

Type of pressure: relative pressure

Liquids and gases


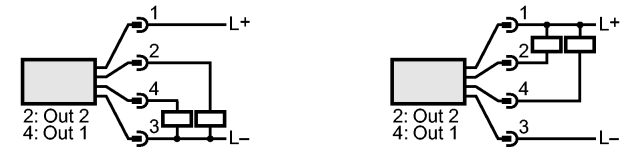
For gaseous media the application is limited to max. 25 bar

Pressure rating	150 bar	2175 psi	15 MPa
Bursting pressure min.	350 bar	5075 psi	35 MPa
Medium temperature [°C]	-25...80		
Electrical data			
Electrical design	DC PNP/NPN		
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	2 outputs OUT1 = switching output OUT2 = switching output or diagnostic output		
Output function	2 x normally open / closed programmable or 1 x normally open / closed programmable + 1 x normally closed (diagnostic function)		
Current rating [mA]	250		
Voltage drop [V]	< 2		
Short-circuit protection	yes (non-latching)		

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Switching frequency [Hz]	≤ 170		
Measuring / setting range			
Measuring range	0...25 bar	0...363 psi	0...2.5 MPa
Setting range			
Set point, SP	0.2...25.0 bar	4...362 psi	0.02...2.50 MPa
Reset point, rP	0.1...24.9 bar	2...360 psi	0.01...2.49 MPa
in steps of	0.1 bar	2 psi	0.01 MPa
Factory setting	SP1 = 90 psi; rP1 = 84 psi SP2 = 272 psi; rP2 = 264 psi		
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		
Integrated watchdog	yes		
Software / programming			
Programming options	hysteresis / window function; N.O. / N.C; diagnostic function; output polarity; on delay, off delay; damping; display unit		
Interfaces			
IO-Link Device			
Transfer type	COM2 (38.4 kBaud)		
IO-Link revision	1.1		
IO-Link Device ID	329 d / 00 01 49 h		
Profiles	no profile		
SIO mode	yes		
Required master port class	A		
Process data analogue	1		
Process data binary	2		
Min. process cycle time [ms]	2.3		
Environment			
Ambient temperature [°C]	-20...80 (UB < 32 V) / -20...60 (UB > 32 V)		
Storage temperature [°C]	-40...100		
Protection	IP 65		
Tests / approvals			
EMC	EN 61000-6-2 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]	219		
Mechanical data			
Process connection	7/16-20 UNF (SAE)		
Materials (wetted parts)	stainless steel (303S22); ceramics; FPM		
Housing materials	stainless steel (304S15); stainless steel 316L / 1.4404; PC; PBT; PEI; FPM; PTFE		
Switching cycles min.	100 million		
Weight [kg]	0.268		
Displays / operating elements			
Display	Display unit	3 x LED green	
	Switching status	2 x LED yellow	
	Function display	4-digit alphanumeric display	

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	Measured values 4-digit alphanumeric display
Electrical connection	M12 connector; gold-plated contacts
Wiring	
<p>Programming of the output function</p> <p>-----OUT1-----</p> <p>Hno = hysteresis / normally open Hnc = hysteresis / normally closed Fno = window function / normally open Fnc = window function / normally closed</p> <p>-----OUT2-----</p> <p>Hno = hysteresis / normally open Hnc = hysteresis / normally closed Fno = window function / normally open Fnc = window function / normally closed</p> <p>dESI = diagnostic function (normally closed)</p> 	
Remarks	<p>1) to EN50178, SELV, PELV *) BFSL = Best Fit Straight Line / LS = Limit Value Setting **) with temperature fluctuations < 10 K ***) in% of the span / 6 months</p>
Pack quantity	[piece] 1