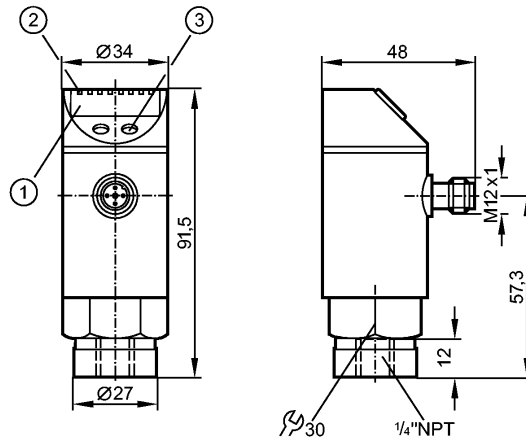


PN7203

PN-025-RBN14-QFRKG/US/ IV

Pressure sensors



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

Made in Germany



Product characteristics

Electronic pressure monitor
Quick disconnect
Function programmable
Process connection: 1/4" NPT
2 outputs OUT1 = switching output OUT2 = switching output or diagnostic output
4-digit alphanumeric display
Measuring range: 0...363 psi / 0...25 bar / 0...2.5 MPa

Application

Application	Type of pressure: relative pressure Liquids and gases		
Pressure rating	2175 psi	150 bar	15 MPa
Bursting pressure min.	5075 psi	350 bar	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
Oversvoltage 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

PN7203

PN-025-RBN14-QFRKG/US/ /V

Pressure sensors

Short-circuit protection	Yes (non-latching)
Switching frequency [Hz]	≤ 170

Measuring / setting range

Measuring range	0...363 psi	0...25 bar	0...2.5 MPa
Setting range			
Set point, SP	4...362 psi	0.2...25.0 bar	0.02...2.50 MPa
Reset point, rP	2...360 psi	0.1...24.9 bar	0.01...2.49 MPa
in steps of	2 psi	0.1...24.9 bar	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 -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
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
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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
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PN-025-RBN14-QFRKG/US/ IV

Pressure sensors

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	¼" NPT	
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]	0.266	

Displays / operating elements

Display	Display unit 3 x LED green Switching status 2 x LED yellow Function display 4-digit alphanumeric display Measured values 4-digit alphanumeric display
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Electrical connection

Connection	M12 connector; gold-plated contacts
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Wiring

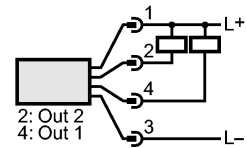
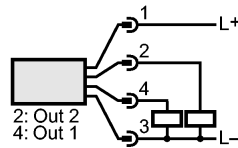
Programming of the output function

-----OUT1-----

- Hno = hysteresis / normally open
- Hnc = hysteresis / normally closed
- Fno = window function / normally open
- Fnc = window function / normally closed

-----OUT2-----

- Hno = hysteresis / normally open
- Hnc = hysteresis / normally closed
- Fno = window function / normally open
- Fnc = window function / normally closed
- dESI = diagnostic function (normally closed)



Remarks

Remarks	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
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Pack quantity [piece]	1
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