

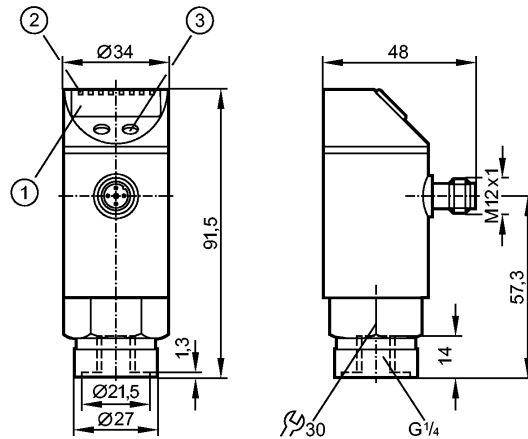


PE7009

PE-1-1BRDR14-QFRKG/US/ /E



Pressure sensors



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



Product characteristics

Electronic pressure monitor

Quick disconnect

Sealing of the measuring cell: EPDM

Function programmable

Process connection: G 1/4 I

2 outputs

OUT1 = switching output

OUT2 = switching output or diagnostic output

4-digit alphanumeric display

Measuring range: -1000...1000 mbar

Application

Application	Type of pressure: relative pressure Liquids and gases Cannot be used for oils
Pressure rating [mbar]	20000
Bursting pressure min. [mbar]	50000
Medium temperature [°C]	-25...80

Electrical data

Electrical design	DC PNP/NPN
Operating voltage [V]	18...36 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)



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Current rating	[mA]	250
Voltage drop	[V]	< 2
Short-circuit protection		yes (non-latching)
Switching frequency	[Hz]	≤ 170

Measuring / setting range		
Display unit		mbar, kPa, psi, inHg
Measuring range	[mbar]	-1000...1000
Setting range		
Set point, SP	[mbar]	-970...1000
Reset point, rP	[mbar]	-980...990
in steps of	[mbar]	10
Factory setting		SP1 = -500 mbar; rP1 = -540 mbar SP2 = 500 mbar; rP2 = 460 mbar

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

Interfaces		
IO-Link Device		
Transfer type		COM2 (38.4 kBaud)
IO-Link revision		1.1
IO-Link Device ID		314 d / 00 01 3A 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 67



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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]	237	

Mechanical data

Process connection	G 1/4 I	
Materials (wetted parts)	stainless steel 316L / 1.4404; ceramics (99.9 % Al ₂ O ₃); EPDM	
Housing materials	stainless steel (304S15); stainless steel 316L / 1.4404; PC; PBT; PEI; FPM; EPDM/X; PTFE	
Switching cycles min.	100 million	
Weight [kg]	0.263	

Displays / operating elements

Display	Display unit 4 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

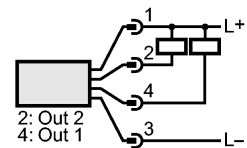
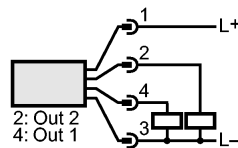
Programming of the output function

-----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 value of measuring range / 6 months
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Pack quantity [piece]	1
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