

PE3009

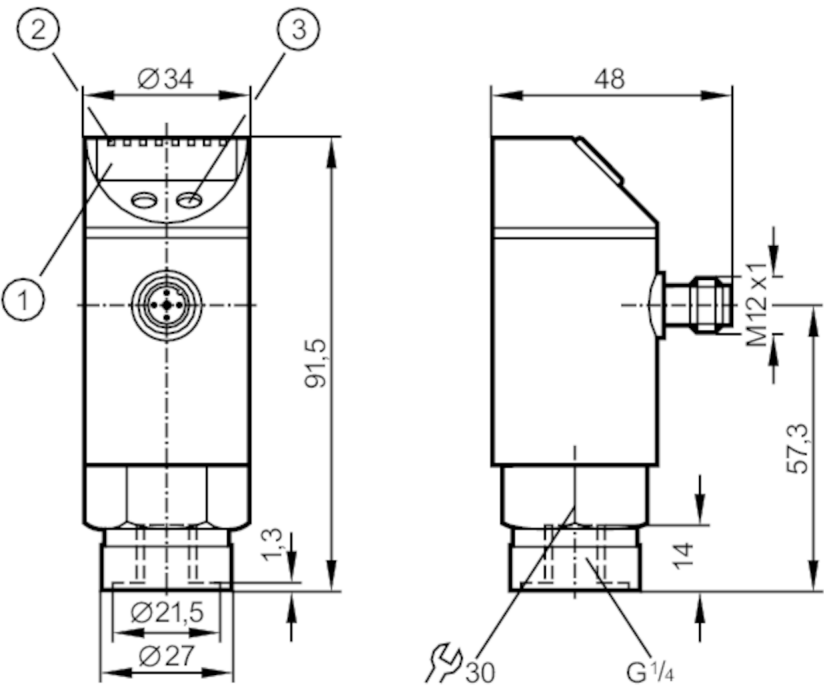


Pressure sensor with display

PE-1-1BRDR14-MFPKG/US/ /E

Discontinued article

Alternative articles: PE2099 or PE2599
When selecting an alternative article and accessories please note that technical data may differ!



- 1 alphanumeric display 4-digit
- 2 LEDs Display unit / Switching status
- 3 Programming button



Product characteristics

Output signal	switching signal; analog signal; (configurable)	
Measuring range	-1...1 bar	-1000...1000 mbar
Process connection	threaded connection G 1/4 Internal thread	

Application

System	gold-plated contacts
Application	for industrial applications
Media	liquids and gases
Cannot be used for	oils
Medium temperature [°C]	-25...80
Min. bursting pressure [mbar]	50000
Pressure rating [mbar]	20000
Type of pressure	relative pressure; vacuum

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Electrical data			
Operating voltage	[V]	18...36 DC; (according to EN 50178 SELV/PELV)	
Current consumption	[mA]	< 50	
Min. insulation resistance	[MΩ]	100; (500 V DC)	
Protection class		III	
Reverse polarity protection		yes	
Overvoltage protection		yes; (< 40 V)	
Power-on delay time	[s]	0.3	
Integrated watchdog		yes	
Inputs / outputs			
Number of inputs and outputs		Number of digital outputs: 1; Number of analog outputs: 1	
Outputs			
Total number of outputs		2	
Output signal		switching signal; analog signal; (configurable)	
Electrical design		PNP	
Number of digital outputs		1	
Output function		normally open / closed; (configurable)	
Max. voltage drop switching output DC	[V]	2	
Permanent current rating of switching output DC	[mA]	250	
Switching frequency DC	[Hz]	< 170	
Number of analog outputs		1	
Analog current output	[mA]	4...20	
Max. load	[Ω]	500	
Analog voltage output	[V]	0...10	
Min. load resistance	[Ω]	2000	
Short-circuit protection		yes	
Type of short-circuit protection		yes (non-latching)	
Measuring/setting range			
Measuring range		-1...1 bar	-1000...1000 mbar
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
Accuracy / deviations			
Switch point accuracy	[% of the span]	< ± 0,5	
Repeatability	[% of the span]	< ± 0,1; (with temperature fluctuations < 10 K)	
Characteristics deviation	[% of the span]	< ± 0,25 (BFSL) / < ± 0,5 (LS); (BFSL = Best Fit Straight Line; LS = limit value setting)	
Hysteresis deviation	[% of the span]	< ± 0,25	
Long-term stability		< ± 0.05; (per 6 months)	

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[% of the span]		
Temperature coefficient zero point		0,2; (-20...80 °C)
[% of the span / 10 K]		
Temperature coefficient span		0,2; (-20...80 °C)
[% of the span / 10 K]		
Reaction times		
Delay time programmable dS, dr	[s]	0; 0,2...50
Max. response time analog output	[ms]	3
Software / programming		
Adjustment of the switch point		Programming button
Parameter setting options		hysteresis / window; normally open / closed; switch-on/ switch-off delay; Damping; Display unit; current/voltage output
Operating conditions		
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
Pressure equipment directive		sound engineering practice; can be used for group 2 fluids; group 1 fluids on request
Mechanical data		
Weight	[g]	261.5
Material		stainless steel (1.4301 / 304); stainless steel (1.4404 / 316L); PC; PBT; PEI; FKM; PTFE
Materials (wetted parts)		stainless steel (1.4404 / 316L); ceramics (99.9 % Al ₂ O ₃); Sealing of the measuring cell: EPDM
Min. pressure cycles		100 million
Process connection		threaded connection G 1/4 Internal thread
Displays / operating elements		
Display	Display unit	4 x LED, green
	Switching status	LED, yellow
	Function display	alphanumeric display, 4-digit
	Measured values	alphanumeric display, 4-digit
Display unit		mbar; kPa; psi; inHg
Remarks		
Pack quantity		1 pcs.

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Electrical connection

Connector: 1 x M12; Contacts: gold-plated



Connection

