

PE3009

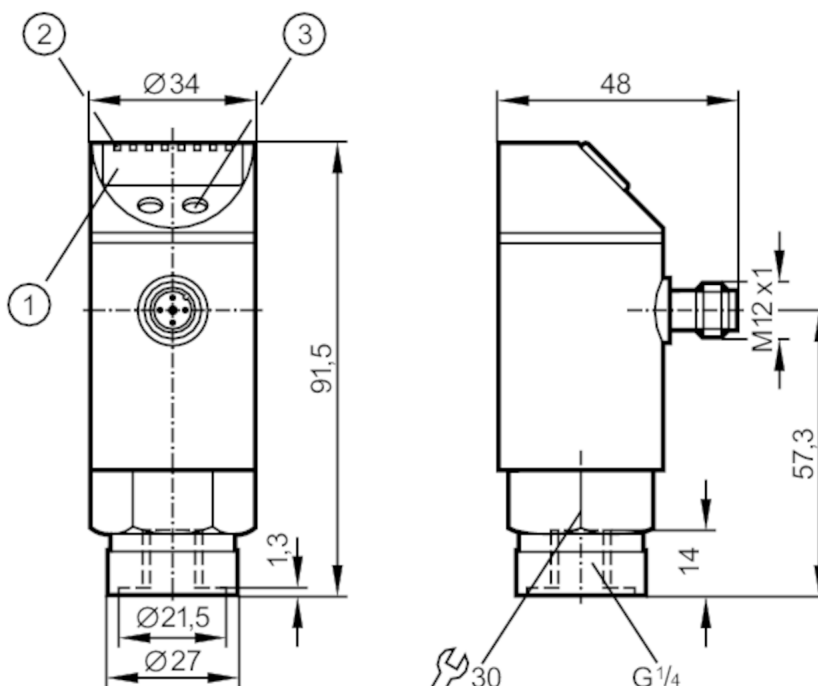


Pressure sensor with display

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

discontinued article

Alternative article: PE2099 or PE2599 When selecting an alternative article and accessories please note that technical data may differ! – When selecting an alternative article and accessories please note that technical data may differ! – Discontinuation date: 31.03.2019



- 1 alphanumeric display 4-digit
- 2 LEDs Display unit / switching status
- 3 programming button



Product characteristics

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

Application

Special feature	Gold-plated contacts	
Application	for industrial applications	
Media	liquids and gases	
Cannot be used for	oils	
Medium temperature [°C]	-25...80	
Pressure rating [mbar]	20000	
Min. bursting pressure [mbar]	50000	
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 analogue outputs: 1	
Outputs			
Total number of outputs		2	
Output signal		switching signal; analogue signal; (configurable)	
Electrical design		PNP	
Number of digital outputs		1	
Output function		normally open / normally closed; (parameterisable)	
Max. voltage drop switching output DC	[V]	2	
Permanent current rating of switching output DC	[mA]	250	
Switching frequency DC	[Hz]	< 170	
Number of analogue outputs		1	
Analogue current output	[mA]	4...20	
Max. load	[Ω]	500	
Analogue voltage output	[V]	0...10	
Min. load resistance	[Ω]	2000	
Short-circuit protection		yes	
Type of short-circuit protection		pulsed	
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		< ± 0,5	
	[% of the span]		
Repeatability	[% of the span]	< ± 0,1; (with temperature fluctuations < 10 K)	
Characteristics deviation		< ± 0,25 (BFSL) / < ± 0,5 (LS); (BFSL = Best Fit Straight Line; LS = limit value setting)	
	[% of the span]		
Hysteresis deviation		< ± 0,25	
	[% of the span]		
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]		
Response times		
Delay time programmable dS, dr	[s]	0; 0,2...50
Max. response time analogue output	[ms]	3
Software / programming		
Adjustment of the switch point		programming button
Parameter setting options		hysteresis / window; normally open / normally 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
Materials		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		
Notes		discontinued article
Pack quantity		1 pcs.

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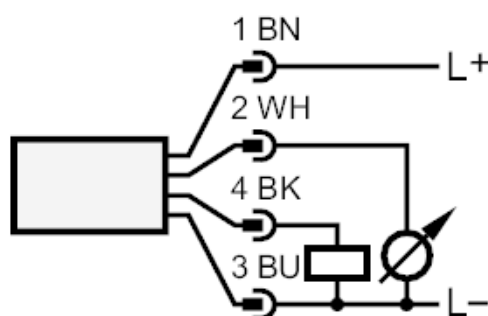
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Electrical connection

Connector: 1 x M12; Contacts: gold-plated



Connection



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