

PE3029



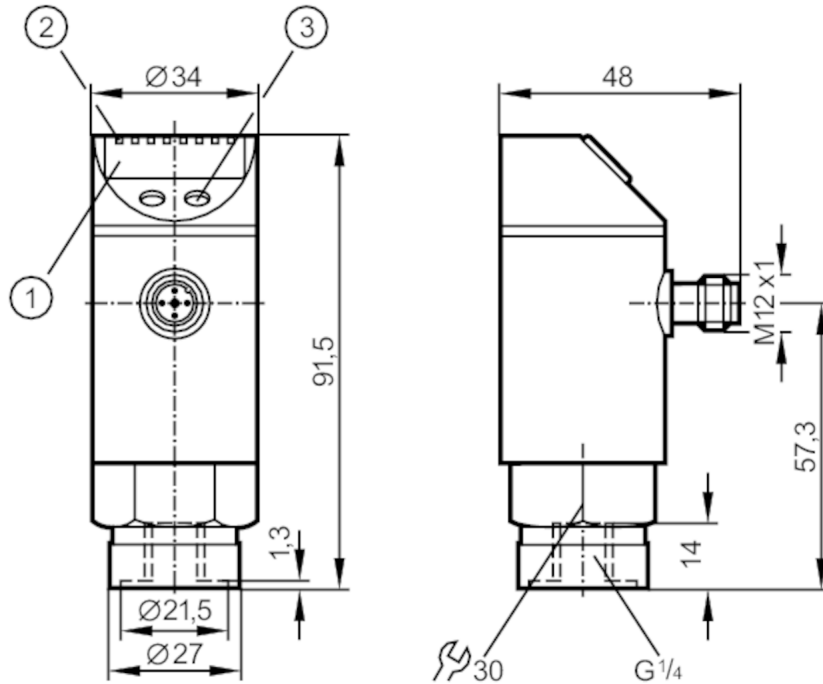
Pressure sensor with display

PE-0-1BRDR14-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...0 bar	-1000...0 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]	30000
Pressure rating [mbar]	10000
Type of pressure	relative pressure; vacuum

PE3029



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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...0 bar -1000...0 mbar
Set point SP [mbar]	-990...0
Reset point rP [mbar]	-995...-5
In steps of [mbar]	5
Factory setting	SP1 = -750 mbar rP1 = -770 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)

PE3029



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	[% of the span]	
Temperature coefficient zero point	[% of the span / 10 K]	0,2; (-20...80 °C)
Temperature coefficient span	[% of the span / 10 K]	0,2; (-20...80 °C)

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; EPDM/X; 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

