

PE3002

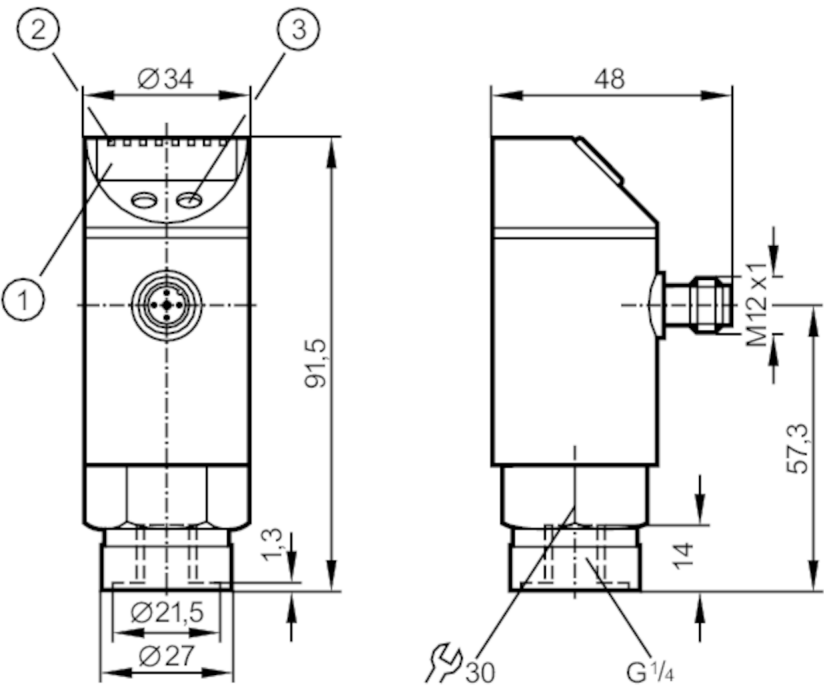


Pressure sensor with display

PE-100-SDR14-MFPKG/US/ /E

Discontinued article

Alternative articles: PE2092 or PE2592
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	0...100 bar	0...1450 psi	0...10 MPa
Process connection	threaded connection G 1/4 Internal thread		

Application

System	gold-plated contacts		
Application	for industrial applications		
Media	liquids and gases		
Conditionally suitable for	use in gases at pressures > 25 bar only on request		
Cannot be used for	oils		
Medium temperature [°C]	-25...80		
Min. bursting pressure	650 bar	9400 psi	65 MPa
Pressure rating	300 bar	4350 psi	30 Mpa
Type of pressure	relative pressure		



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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		0...100 bar	0...1450 psi 0...10 MPa
Set point SP		1...100 bar	20...1450 psi 0.1...10 MPa
Reset point rP		0.5...99.5 bar	10...1440 psi 0.05...9.95 MPa
In steps of		0.5 bar	10 psi 0.05 MPa
Factory setting			SP1 = 25.0 bar rP1 = 23.0 bar
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	
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] 262.5
Material	stainless steel (1.4301 / 304); stainless steel (1.4404 / 316L); PC; PBT; PEI; FKM
Materials (wetted parts)	stainless steel (1.4404 / 316L); ceramics; 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	3 x LED, green
	Switching status	LED, yellow
	Function display	alphanumeric display, 4-digit
	Measured values	alphanumeric display, 4-digit

Remarks	
Pack quantity	1 pcs.

Electrical connection	
Connector: 1 x M12; Contacts: gold-plated	

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Connection

