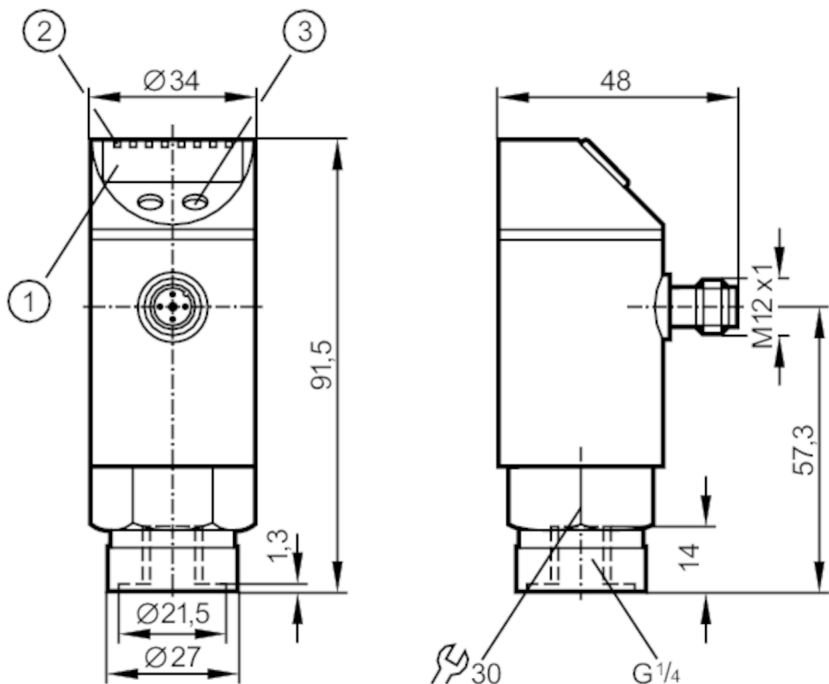


PE3002



Pressure sensor with display

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



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



Application			
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		
Pressure rating	300 bar	4350 psi	30 MPa
Min. bursting pressure	650 bar	9400 psi	65 MPa
Type of pressure	relative pressure		
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		



Pressure sensor with display

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

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	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 [% of the span]	< ± 0,05; (per 6 months)		
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)		
Response times			
Delay time programmable dS, dr [s]	0; 0,2...50		
Max. response time analogue output [ms]	3		

PE3002



Pressure sensor with display

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

Software / programming		
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
Mechanical data		
Weight [g]		262.6
Materials		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		
		

PE3002



Pressure sensor with display

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

Connection

