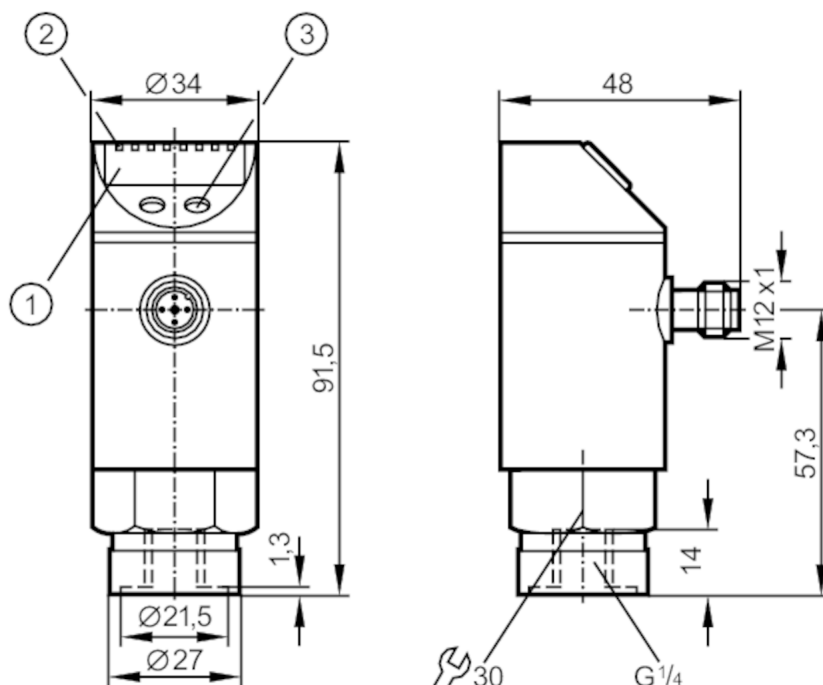




Pressure sensor with display

PN-250-SBR14-QFPKA/US/ IV



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



Product characteristics

Number of inputs and outputs	Number of digital outputs: 2		
Measuring range	0...250 bar	0...3620 psi	0...25 MPa
Process connection	threaded connection G 1/4 internal thread		

Application

Special feature	Gold-plated contacts		
Media	liquids and gases		
Conditionally suitable for	For gaseous media the application is limited to max. 25 bar.		
Medium temperature [°C]	-25...80		
Min. bursting pressure	850 bar	12300 psi	85 MPa
Pressure rating	400 bar	5800 psi	40 MPa
Type of pressure	relative pressure		

Electrical data

Operating voltage tolerance [%]	20
Operating voltage [V]	24 AC / 18...55 DC
Current consumption [mA]	< 50
Min. insulation resistance [MΩ]	100; (500 V DC)
Protection class	III
Reverse polarity protection	yes
Overvoltage protection	yes; (< 60 V DC / < 40 V AC)
Power-on delay time [s]	0.5



Pressure sensor with display

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Integrated watchdog	yes		
Inputs / outputs			
Number of inputs and outputs	Number of digital outputs: 2		
Outputs			
Total number of outputs	2		
Output signal	switching signal		
Electrical design	PNP		
Number of digital outputs	2		
Output function	normally open / normally closed; (parameterisable)		
Max. voltage drop switching output DC [V]	3		
Max. voltage drop switching output AC [V]	3		
Permanent current rating of switching output AC [mA]	100		
Permanent current rating of switching output DC [mA]	100		
Switching frequency AC [Hz]	< 170		
Switching frequency DC [Hz]	< 170		
Short-circuit protection	yes		
Type of short-circuit protection	pulsed		
Measuring/setting range			
Measuring range	0...250 bar	0...3620 psi	0...25 MPa
Set point SP	2...250 bar	40...3620 psi	0.2...25 MPa
Reset point rP	1...249 bar	20...3600 psi	0.1...24.9 MPa
In steps of	1 bar	20 psi	0.1 MPa
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)		
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		
Operating conditions			
Ambient temperature [°C]	-20...80		

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Pressure sensor with display

PN-250-SBR14-QFPA/US/ /V

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]	199
Pressure Equipment Directive	Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	

Mechanical data

Weight	[g]	261
Housing		cylindrical
Dimensions	[mm]	Ø 34 / L = 91.5
Materials		stainless steel (304/1.4301); stainless steel (316L/1.4404); PC; PBT; PEI; FKM; EPDM/X
Materials (wetted parts)		stainless steel (303/1.4305); ceramics; FKM
Min. pressure cycles		100 million
Process connection		threaded connection G 1/4 internal thread
Restrictor element integrated		no (can be retrofitted)

Displays / operating elements

Display	Display unit	3 x LED, green
	switching status	2 x LED, yellow
	function display	alphanumeric display, 4-digit
	measured values	alphanumeric display, 4-digit

Remarks

Remarks	BFSL = Best Fit Straight Line
	LS = limit value setting
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; coding: A; Contacts: gold-plated



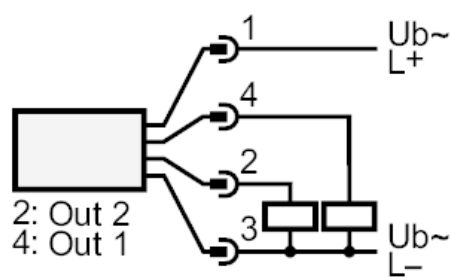
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Connection



OUT1	switching output
OUT2	switching output
	Diagnostic output