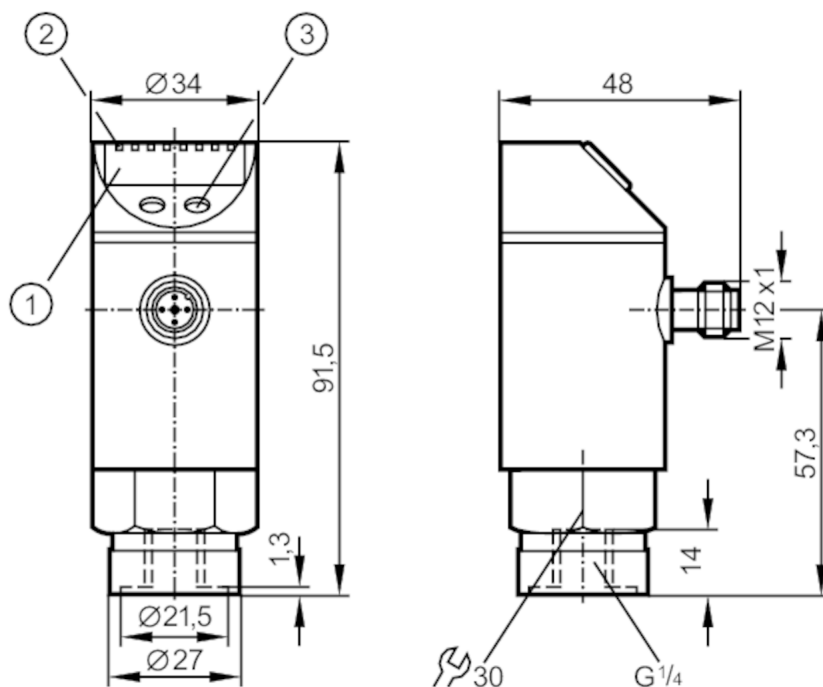


# PY9961



## 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

Output signal	switching signal		
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		
Pressure rating	400 bar	5800 psi	40 MPa
Min. bursting pressure	850 bar	12300 psi	85 MPa
Type of pressure	relative pressure		



## Pressure sensor with display

PN-250-SBR14-QFPA/US/ IV

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	
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		< ± 0,5	
	[% of the span]		
Repeatability		< ± 0,1; (with temperature fluctuations < 10 K)	
	[% of the span]		
Characteristics deviation		< ± 0,25 (BFSL) / < ± 0,5 (LS)	
	[% 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	[% 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
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### 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]	199
Pressure Equipment Directive		Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request

### Mechanical data

Weight	[g]	261
Materials		stainless steel (1.4301 / 304); stainless steel (1.4404 / 316L); PC; PBT; PEI; FKM; EPDM/X
Materials (wetted parts)		stainless steel (1.4305 / 303); 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; Contacts: gold-plated

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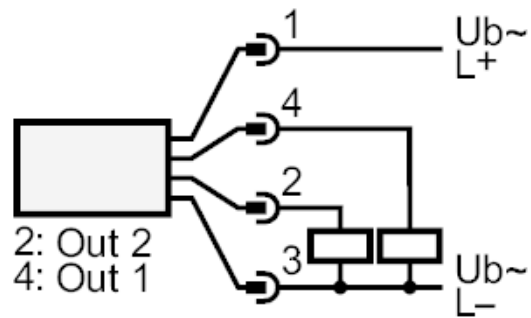


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### Connection



OUT1	switching output
OUT2	switching output
	Diagnostic output