

# PN3001



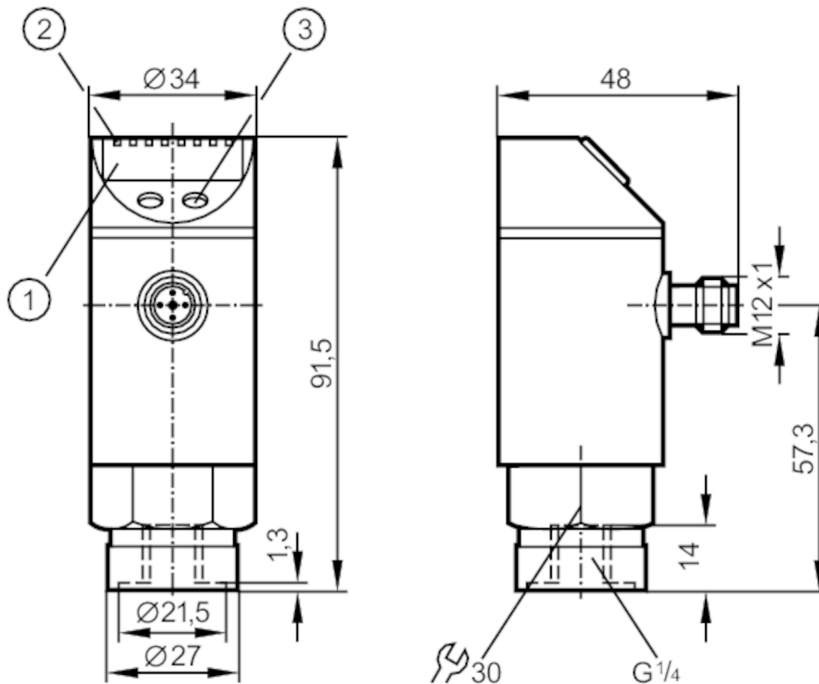
## Pressure sensor with display

PN-250-SBR14-MFPKG/US/ IV

discontinued article

Alternative articles: PN3071

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; analogue signal; (configurable)		
Measuring range	0...250 bar	0...3625 psi	0...25 MPa
Process connection	threaded connection G 1/4 internal thread		

### Application

Special feature	Gold-plated contacts		
Application	for industrial applications		
Media	liquids and gases		
Conditionally suitable for	use in gases at pressures > 25 bar only on request		
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		

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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 analogue outputs: 1	
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...250 bar	0...3625 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
Factory setting			SP1 = 63 bar rP1 = 58 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	[% of the span / 10 K]	0,2; (0...80 °C)
Temperature coefficient span	[% of the span / 10 K]	0,2; (0...80 °C)

### Response times

Delay time programmable dS, dr	[s]	0; 0,2...50
Max. response time analogue output	[ms]	3

### Software / programming

Parameter setting options	hysteresis / window; normally open / normally closed; switch-on/switch-off delay; Damping; Display unit; current/voltage output
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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]	213

### Mechanical data

Weight	[g]	263.4
Materials		stainless steel (1.4301 / 304); stainless steel (1.4404 / 316L); PC; PBT; PEI; FKM
Materials (wetted parts)		stainless steel (1.4305 / 303); ceramics; FKM
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.
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### Electrical connection

Connector: 1 x M12; Contacts: gold-plated

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### Connection

