PN7000

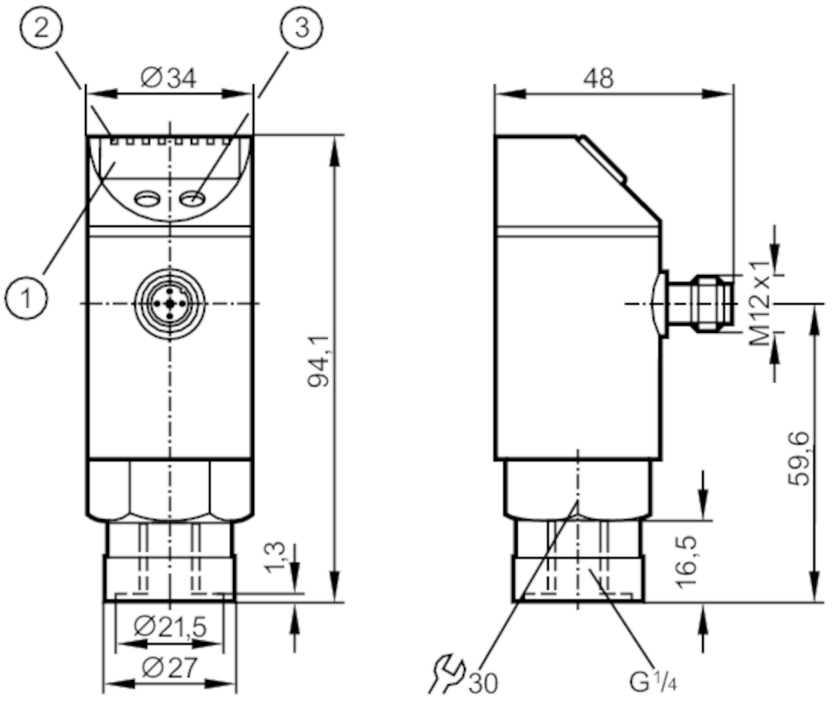
Pressure sensor with display

PN-400-SBR14-QFRKG/US/ /V

Article no longer available - archive entry

Alternative articles: PN7070

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			
Number of inputs and outputs	Number of digital outputs: 2		
Measuring range	0...400 bar	0...5800 psi	0...40 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. burst pressure	1000 bar	14500 psi	100 MPa
Pressure rating	600 bar	8700 psi	60 MPa
Type of pressure	relative pressure		
Electrical data			
Operating voltage [V]	18...36 DC; (to SELV/PELV)		
Current consumption [mA]	< 35		
Min. insulation resistance [MΩ]	100; (500 V DC)		

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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: 2		
Outputs				
Total number of outputs		2		
Output signal		switching signal; IO-Link; (configurable)		
Electrical design		PNP/NPN		
Number of digital outputs		2		
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		
Short-circuit protection		yes		
Type of short-circuit protection		pulsed		
Measuring/setting range				
Measuring range		0...400 bar	0...5800 psi	0...40 MPa
Set point SP		4...400 bar	60...5790 psi	0.4...40 MPa
Reset point rP		2...398 bar	30...5760 psi	0.2...39.8 MPa
In steps of		2 bar	30 psi	0.2 MPa
Factory setting			SP1 = 100 bar	rP1 = 92 bar
			SP2 = 300 bar	rP2 = 292 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; (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		

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Software / programming			
Parameter setting options		hysteresis / window; normally open / normally closed; diagnostic function; switching logic; switch-on/switch-off delay; Damping; Display unit	
Interfaces			
Communication interface		IO-Link	
Transmission type		COM2 (38,4 kBaud)	
IO-Link revision		1.1	
SDCI standard		IEC 61131-9 CDV	
SIO mode		yes	
Required master port type		A	
Process data analogue		1	
Process data binary		2	
Min. process cycle time	[ms]	2.3	
Supported DeviceIDs		**Type of operation**	**DeviceID**
		default	307
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]	219	
Pressure Equipment Directive		Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	
Mechanical data			
Weight	[g]	272.5	
Housing		cylindrical	
Dimensions	[mm]	Ø 34 / L = 94.1	
Materials		stainless steel (304/1.4301); stainless steel (316L/1.4404); PC; PBT; PEI; FKM	
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			
Pack quantity		1 pcs.	

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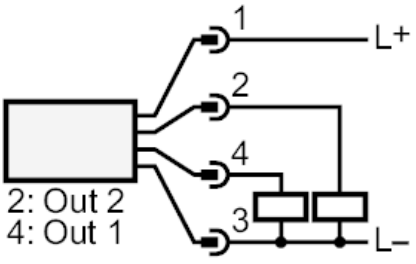
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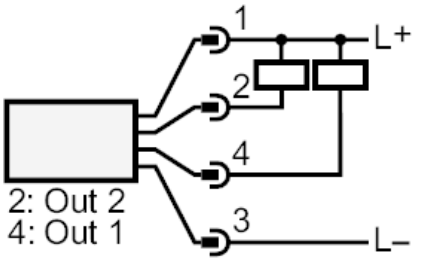
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Electrical connection

Connector: 1 x M12; coding: A; Contacts: 4, gold-plated







OUT1	switching output IO-Link
OUT2	switching output Diagnostic output