PY7001

Pressure sensor with display

PN-250-SGR14-KG /US/ /V

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Alternative articles: PN7571 + E30063
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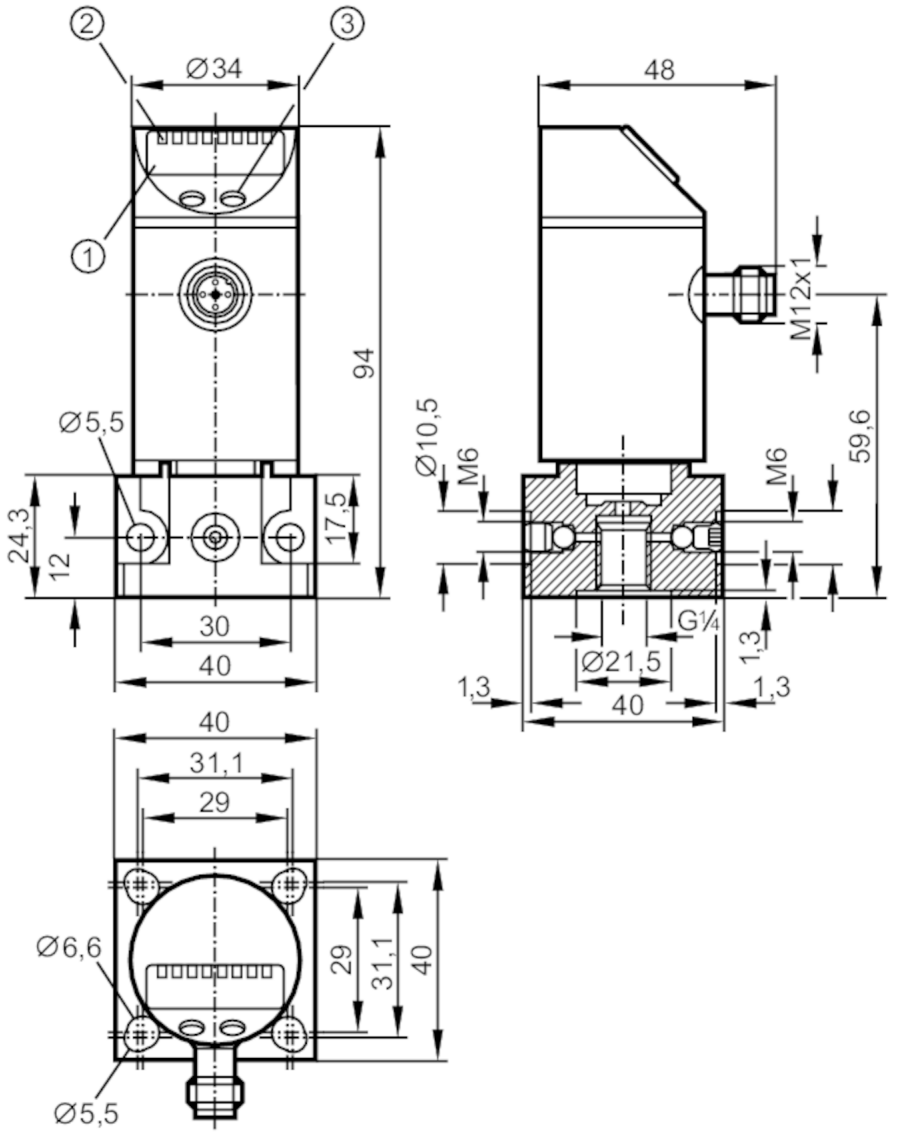

1 alphanumeric display 4-digit
2 LEDs Display unit / switching status
3 programming button

Product characteristics

Number of inputs and outputs		Number of digital outputs: 2	
Measuring range		0...250 bar	0...3625 psi
Measuring range	[MPa]	0...25	
Process connection		flange internal thread:G 1/4; internal thread:M6	

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Application			
Special feature		Gold-plated contacts	
Design		with flange adapter	
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
Min. bursting pressure	[MPa]	85	
Pressure rating		400 bar	5800 psi
Pressure rating	[MPa]	40	
Type of pressure		relative pressure	
Electrical data			
Operating voltage	[V]	18...36 DC; (to 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: 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...250 bar	0...3625 psi
Measuring range	[MPa]	0...25	
Set point SP		2...250 bar	40...3620 psi
Set point SP	[MPa]	0.2...25	
Reset point rP		1...249 bar	20...3600 psi
Reset point rP	[MPa]	0.1...24.9	
In steps of		1 bar	20 psi
In steps of	[MPa]	0.1	

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Factory setting		SP1 = 63 bar	rP1 = 58 bar
		SP2 = 188 bar	rP2 = 183 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]	< ± 0,5; (linearity, incl. hysteresis and repeatability , limit value setting to DIN EN IEC 62828-1)		
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		
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		
Profiles	no profile		
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	308	
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	

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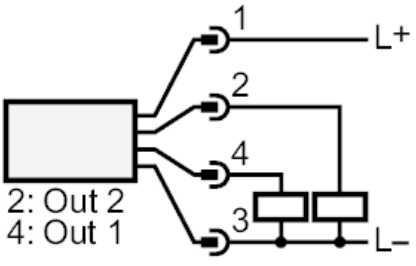
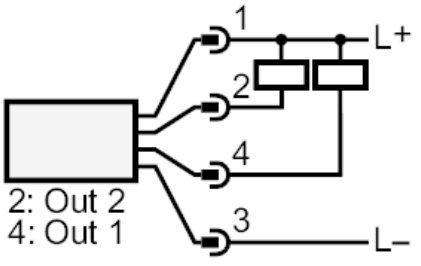
Shock resistance		DIN IEC 68-2-27	50 g (11 ms)
Vibration resistance		DIN IEC 68-2-6	20 g (10...2000 Hz)
Pressure Equipment Directive		Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	
Mechanical data			
Weight	[g]	382.5	
Materials		stainless steel (304/1.4301); PC; PBT; PEI; FKM	
Materials (wetted parts)		steel (1.4104 / 430F); ceramics; FKM	
Min. pressure cycles		100 million	
Process connection		flange internal thread:G 1/4; internal thread:M6	
Restrictor element integrated		no	
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.	
Electrical connection			

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





OUT1	switching output
OUT2	switching output Diagnostic output