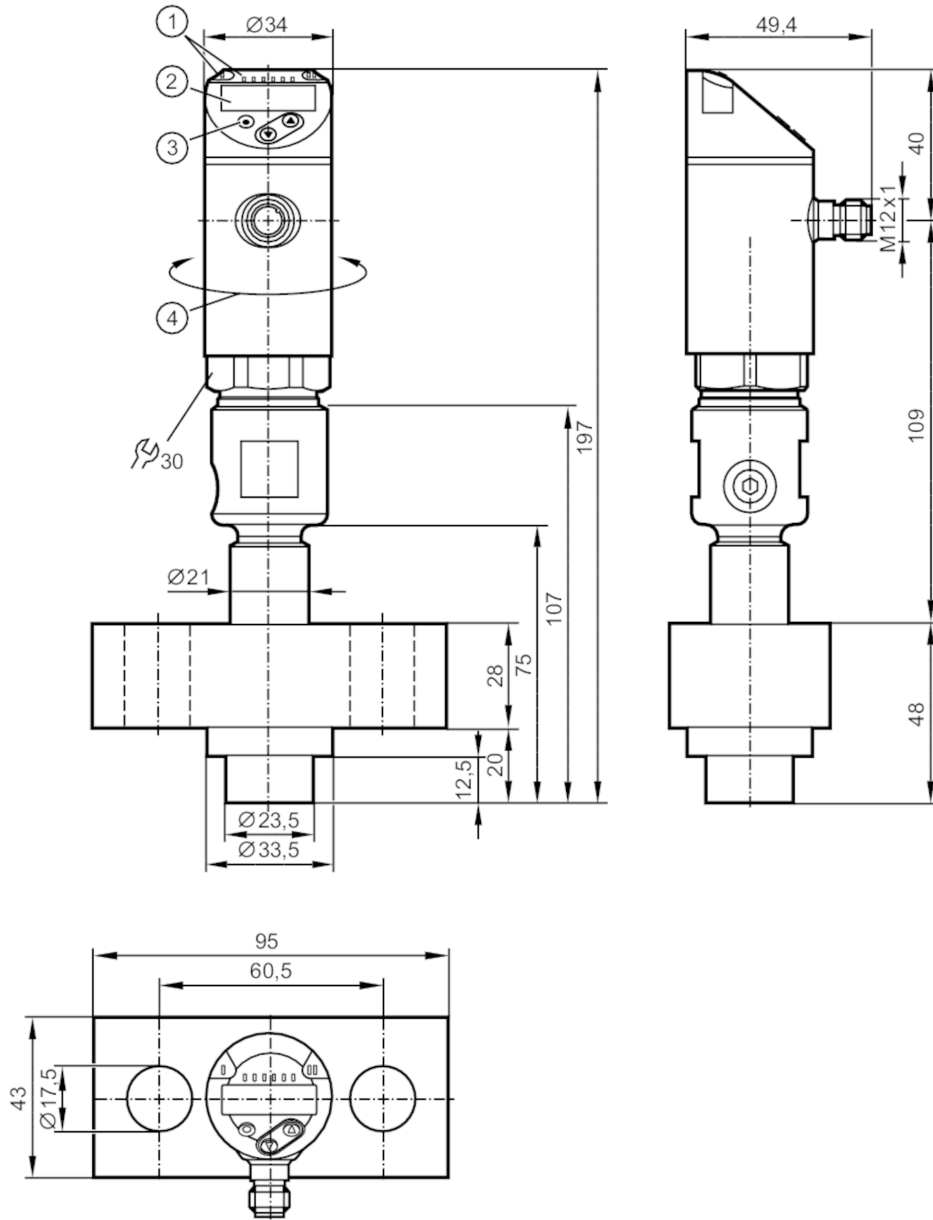


PY9070



Pressure sensor with display

PN-400-SE MFRKG/US/ /



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



Product characteristics

Output signal	switching signal; analogue signal; IO-Link; (configurable)		
Measuring range	0...400 bar	0...5800 psi	0...40 MPa
Process connection	homogeniser connection		

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Pressure sensor with display

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Application			
Special feature	Gold-plated contacts		
Measuring element	diaphragm seal		
Application	food and beverage industry		
Media	liquids and gases		
Medium temperature [°C]	5...90; (< 1 h: 145)		
Pressure rating	600 bar	8700 psi	60 MPa
Min. bursting pressure	1000 bar	14500 psi	100 MPa
Vacuum resistance [mbar]	-1000		
Type of pressure	relative pressure		
Electrical data			
Operating voltage [V]	18...30 DC; (according to EN 50178 SELV/PELV)		
Current consumption [mA]	< 35		
Min. insulation resistance [MΩ]	100; (500 V DC)		
Protection class	III		
Reverse polarity protection	yes		
Power-on delay time [s]	0.3		
Integrated watchdog	yes		
Inputs / outputs			
Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1		
Outputs			
Total number of outputs	2		
Output signal	switching signal; analogue 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]	< 500		
Number of analogue outputs	1		
Analogue current output [mA]	4...20; (scalable 1:5)		
Max. load [Ω]	500		
Analogue voltage output [V]	0...10; (scalable 1:5)		
Min. load resistance [Ω]	2000		
Short-circuit protection	yes		
Type of short-circuit protection	pulsed		
Overload protection	yes		

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Measuring/setting range			
Measuring range	0...400 bar	0...5800 psi	0...40 MPa
Set point SP	1.5...400 bar	20...5800 psi	0.15...40 MPa
Reset point rP	1...399.5 bar	10...5790 psi	0.1...39.95 MPa
Analogue start point	0...320 bar	0...4640 psi	0...32 MPa
Analogue end point	80...400 bar	1160...5800 psi	8...40 MPa
In steps of	0.5 bar	10 psi	0.05 MPa
Accuracy / deviations			
Switch point accuracy [% of the span]	< ± 0,4; (Turn down 1:1)		
Repeatability [% of the span]	< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)		
Characteristics deviation [% of the span]	< ± 1; (linearity, incl. hysteresis and repeatability; limit value setting to DIN 16086)		
Hysteresis deviation [% of the span]	< ± 0,1; (Turn down 1:1)		
Long-term stability [% of the span]	< ± 0,05; (Turn down 1:1; per 6 months)		
Temperature coefficient zero point [% of the span / 10 K]	0,2; (5...80 °C)		
Temperature coefficient span [% of the span / 10 K]	0,2; (5...80 °C)		
Response times			
Response time [ms]	< 1.5		
Delay time programmable dS, dr [s]	0...50		
Damping for the switching output dAP [s]	0...4		
Damping for the analogue output dAA [s]	0...4		
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		
Interfaces			
Communication interface	IO-Link		
Transmission type	COM2		
IO-Link revision	1.1		
SDCI standard	IEC 61131-9		
IO-Link device ID	459 d / 00 01 cb h		
Profiles	Smart Sensor: Process Data Variable; Device Identification, Device Diagnosis		
SIO mode	yes		
Required master port type	A		
Process data analogue	1		
Process data binary	2		
Min. process cycle time [ms]	2.3		

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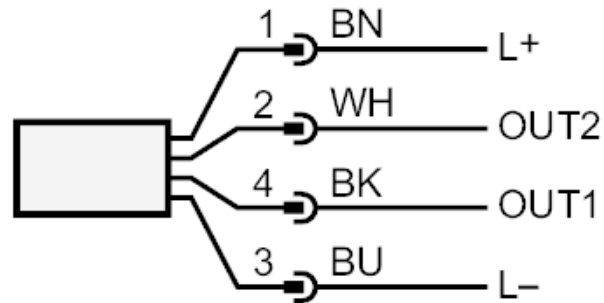
Operating conditions		
Ambient temperature	[°C]	5...80
Storage temperature	[°C]	-40...100
Protection		IP 67
Tests / approvals		
EMC	DIN EN 61000-6-2	
	DIN EN 61000-6-3	
Shock resistance	DIN EN 60068-2-27	50 g (11 ms)
Vibration resistance	DIN EN 60068-2-6	10 g (10...2000 Hz)
Mechanical data		
Weight	[g]	1479
Materials	1.4542 (17-4 PH / 630); stainless steel (1.4404 / 316L); stainless steel (1.4435 / 316L); PBT+PC-GF30; PBT-GF20; PC	
Materials (wetted parts)	stainless steel (1.4435 / 316L)	
Min. pressure cycles	60 million; (at 1.2 times nominal pressure)	
Process connection	homogeniser connection	
Displays / operating elements		
Display	Display unit	3 x LED, green (bar, psi, MPa)
	switching status	2 x LED, yellow
	measured values	alphanumeric display, red/green 4-digit
Remarks		
Pack quantity	1 pcs.	
Electrical connection		
Connector: 1 x M12; Contacts: gold-plated		
		

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Pressure sensor with display

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OUT1 switching output or IO-Link
OUT2 switching output or analogue output
 colours to DIN EN 60947-5-2

Core colours :

BK = black
BN = brown
BU = blue
WH = white