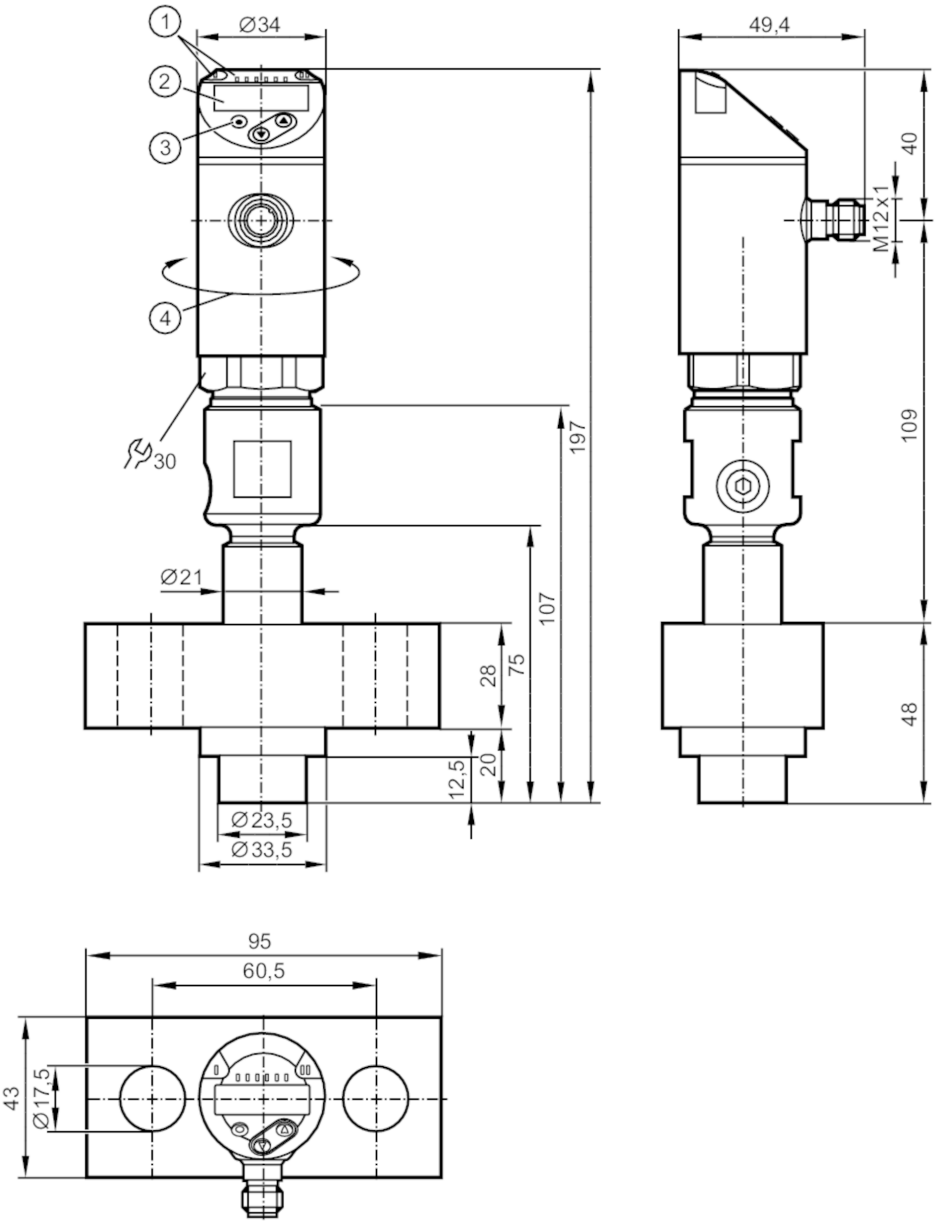
PY9070

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

CE EC 1935/2004 FDA UKCA

Product characteristics			
Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1		
Measuring range	0...400 bar	0...5800 psi	0...40 MPa
Process connection	homogeniser connection		
Application			
Special feature	Gold-plated contacts		
Measuring element	diaphragm seal		
Application	flush mountable for the food and beverage industry		

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Media		liquids and gases		
Medium temperature	[°C]	5...90; (< 1 h: 145; bei 100°C Ambient temperature 60°C)		
Min. bursting pressure		1000 bar	14500 psi	100 MPa
Pressure rating		600 bar	8700 psi	60 MPa
Vacuum resistance	[mbar]	-1000		
Type of pressure		relative pressure		
Electrical data				
Operating voltage	[V]	18...30 DC; (to 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		
Measuring/setting range				
Measuring range		0...400 bar	0...5800 psi	0...40 MPa
Set point SP		2.5...400 bar	40...5800 psi	0.25...40 MPa
Reset point rP		1...398.5 bar	10...5780 psi	0.1...39.85 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		< ± 0,4; (Turn down 1:1)		

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[% of the span]		
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 EN IEC 62828-1)
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 process value 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 (38,4 kBaud)
IO-Link revision		1.1
SDCI standard		IEC 61131-9
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
Supported DeviceIDs	**Type of operation**	**DeviceID**
	default	459
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)

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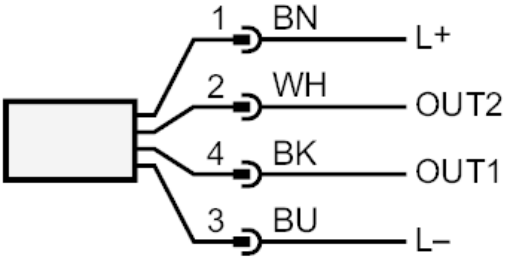
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Vibration resistance		DIN EN 60068-2-6	10 g (10...2000 Hz)
Mechanical data			
Weight	[g]	1479	
Materials		1.4542 (17-4 PH / 630); stainless steel (1.4404 / 316L); stainless steel (1.4435 / 316L); PBT+PC-GF30; PBT-GF20; PC	
Materials (wetted parts)		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; coding: A; Contacts: gold-plated





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