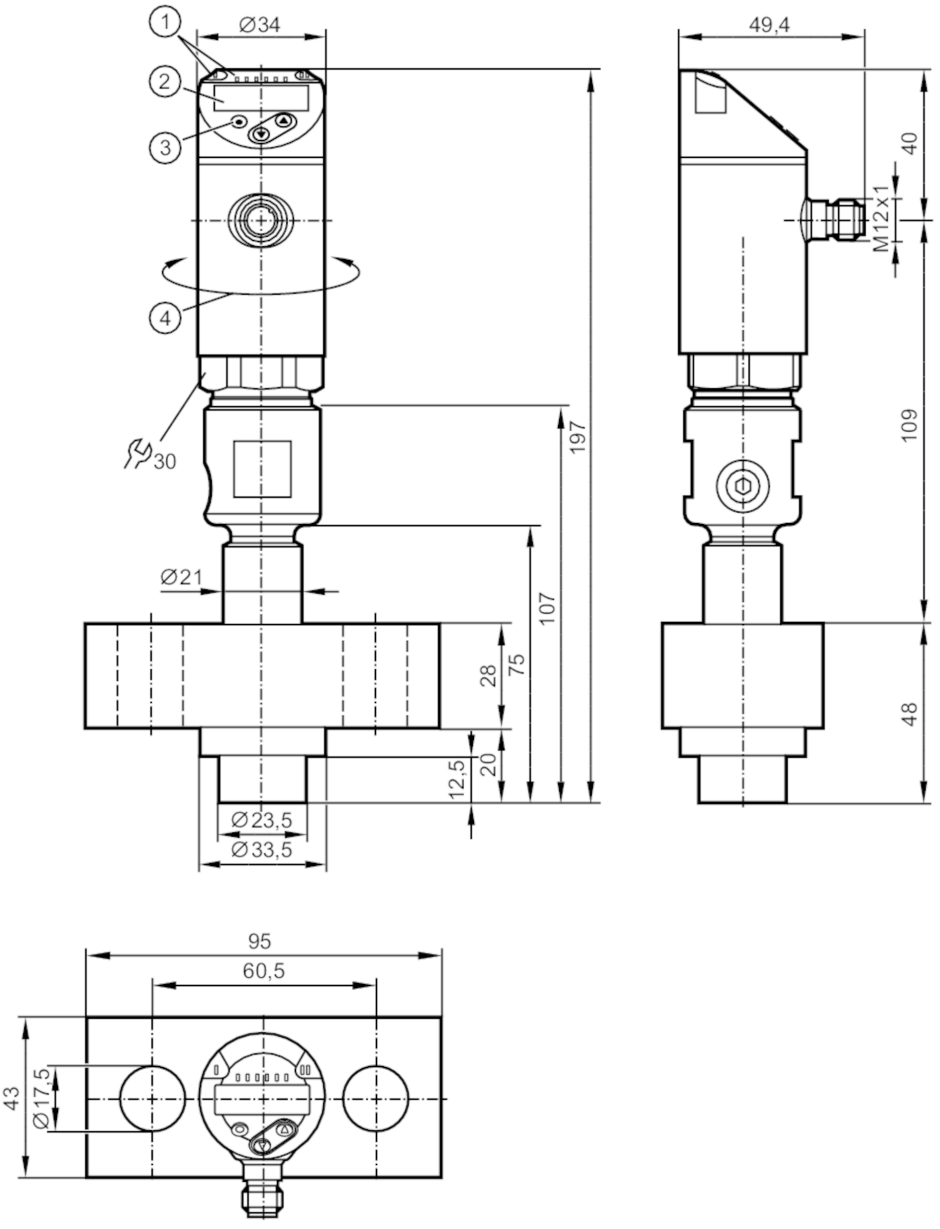
PY9070

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
Measuring range	[MPa]	0...40	
Process connection		homogeniser connection	
Application			
Special feature		Gold-plated contacts	
Measuring element		diaphragm seal	

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Application		flush mountable for the food and beverage industry	
Media		liquids and gases	
Medium temperature	[°C]	5...90; (for further details see section Diagrams and graphs)	
Min. bursting pressure		1000 bar	14500 psi
Min. bursting pressure	[MPa]	100	
Pressure rating		600 bar	8700 psi
Pressure rating	[MPa]	60	
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
Measuring range	[MPa]	0...40	
Set point SP		2.5...400 bar	40...5800 psi
Set point SP	[MPa]	0.25...40	
Reset point rP		1...398.5 bar	10...5780 psi

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Reset point rP	[MPa]	0.1...39.85	
Analogue start point		0...320 bar	0...4640 psi
Analogue start point	[MPa]	0...32	
Analogue end point		80...400 bar	1160...5800 psi
Analogue end point	[MPa]	8...40	
In steps of		0.5 bar	10 psi
In steps of	[MPa]	0.05	
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 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	

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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)
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.	

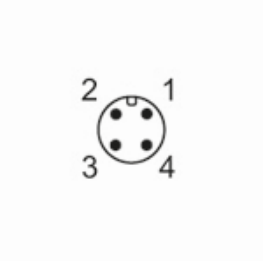
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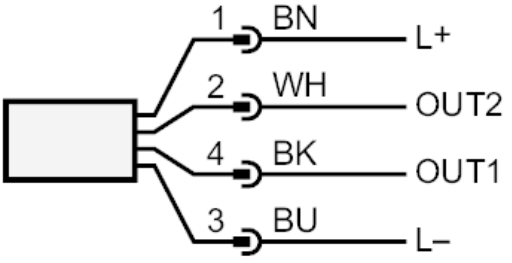
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Electrical connection

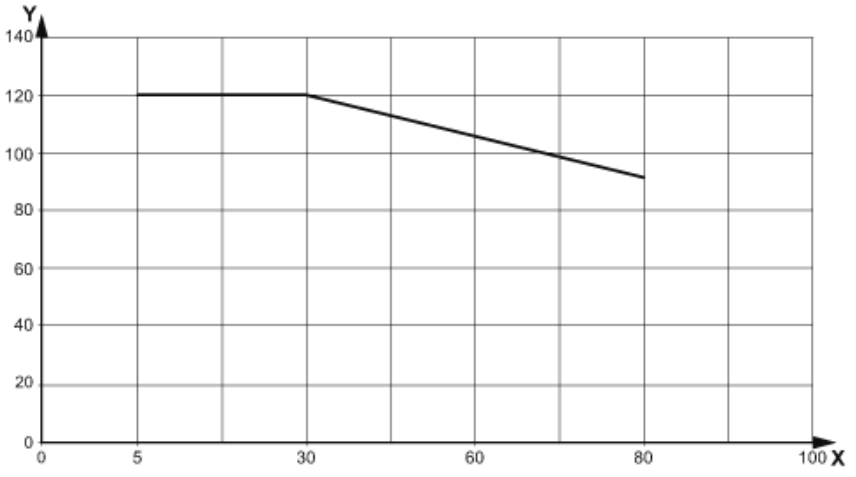
Connector: 1 x M12; coding: A; Contacts: gold-plated





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

Diagrams and graphs



X Ambient temperature

Y Medium temperature