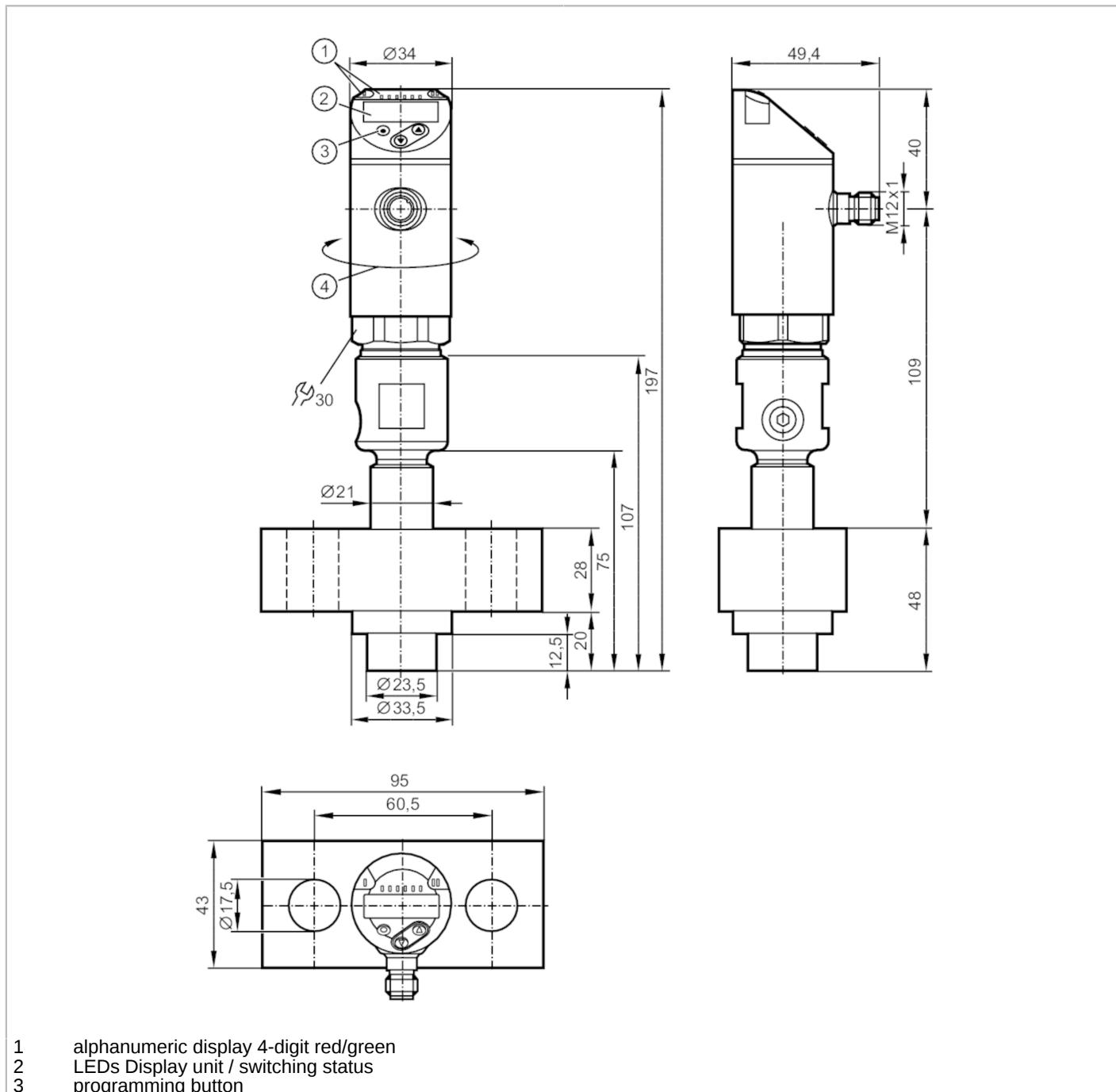


PY9070



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

EC 1935/2004

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

PY9070

Pressure sensor with display

PN-400-SE MFRKG/US/ /



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

PY9070



Pressure sensor with display

PN-400-SE MFRKG/US/ /

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		< ± 0,4; (Turn down 1:1)
	[% of the span]	
Repeatability		< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)
	[% of the span]	
Characteristics deviation		< ± 1; (linearity, incl. hysteresis and repeatability; limit value setting to DIN EN IEC 62828-1)
	[% of the span]	
Hysteresis deviation		< ± 0,1; (Turn down 1:1)
	[% of the span]	
Long-term stability		< ± 0,05; (Turn down 1:1; per 6 months)
	[% of the span]	
Temperature coefficient zero point		0,2; (5...80 °C)
	[% of the span / 10 K]	
Temperature coefficient span		0,2; (5...80 °C)
	[% of the span / 10 K]	
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

PY9070



Pressure sensor with display

PN-400-SE MFRKG/US/ /

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		stainless steel (630/1.4542/17-4 PH); stainless steel (316L/1.4404); stainless steel (316L/1.4435); PBT+PC-GF30; PBT-GF20; PC
Materials (wetted parts)		stainless steel (316L/1.4435)
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.

PY9070

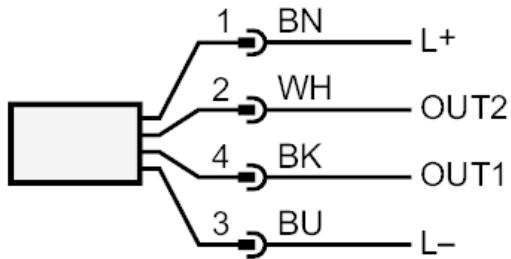


Pressure sensor with display

PN-400-SE MFRKG/US/ /

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 :

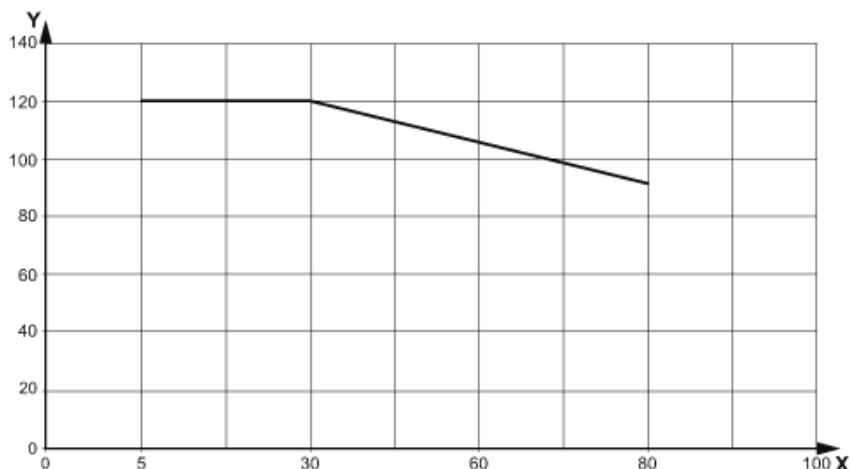
BK = black

BN = brown

BU = blue

WH = white

Diagrams and graphs



X Ambient temperature

Y Medium temperature