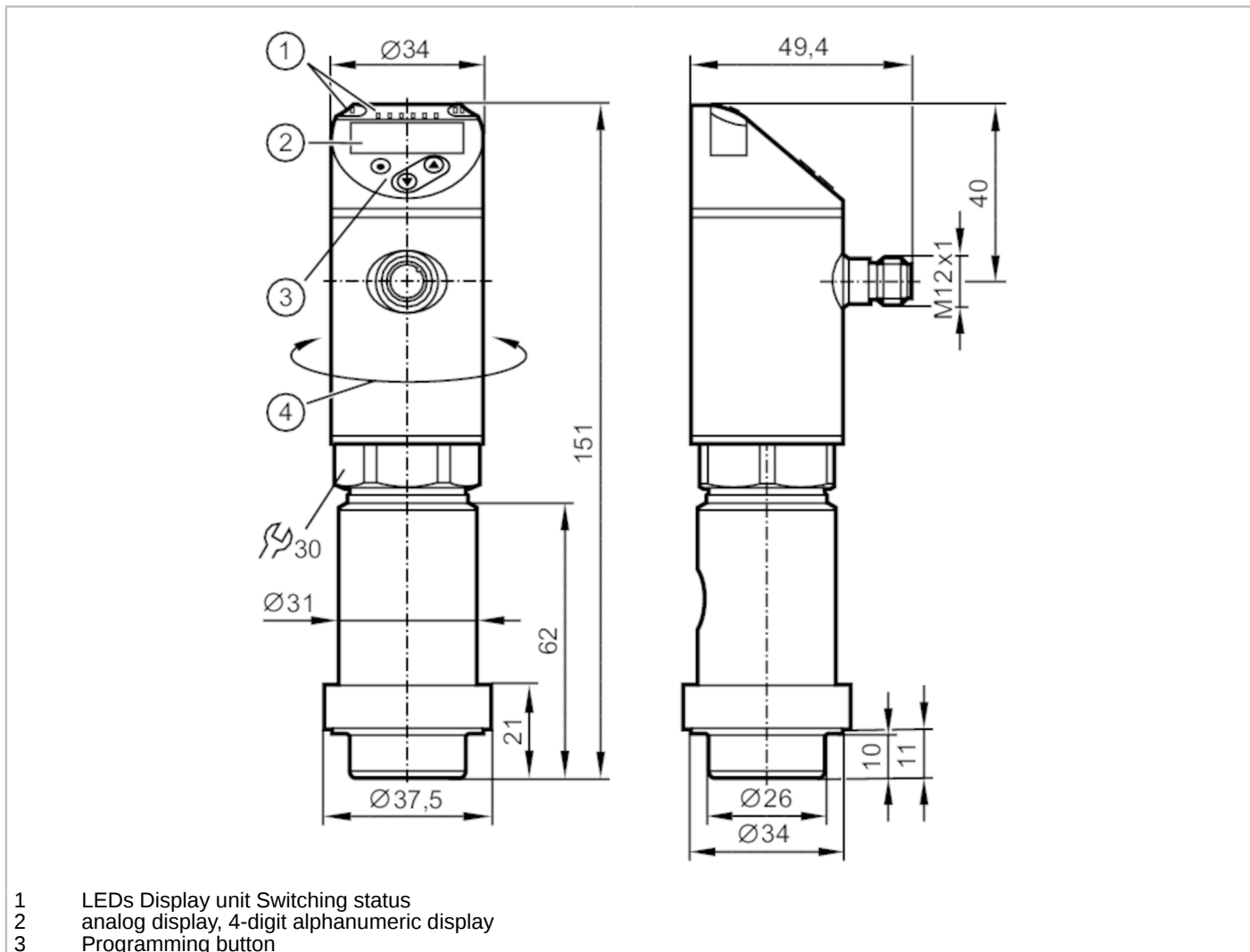


PY9001



Pressure sensor with display

PN-250-SE MFRKG/US/ /



Product characteristics

Number of inputs and outputs	Number of digital outputs: 2; Number of analog outputs: 1	
Measuring range	0...250 bar	0...3625 psi
Measuring range [MPa]	0...25	
Process connection	homogenizer connection	

Application

System	gold-plated contacts	
Measuring element	diaphragm seal	
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	500 bar	7250 psi
Pressure rating [MPa]	50	
Vacuum resistance [mbar]	-1000	

PY9001



Pressure sensor with display

PN-250-SE MFRKG/US/ /

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 analog outputs: 1	
Outputs		
Total number of outputs	2	
Output signal	switching signal; analog signal; IO-Link; (configurable)	
Electrical design	PNP/NPN	
Number of digital outputs	2	
Output function	normally open / closed; (configurable)	
Max. voltage drop switching output DC [V]	2	
Permanent current rating of switching output DC [mA]	250	
Switching frequency DC [Hz]	< 500	
Number of analog outputs	1	
Analog current output [mA]	4...20; (scalable 1:5)	
Max. load [Ω]	500	
Analog voltage output [V]	0...10; (scalable 1:5)	
Min. load resistance [Ω]	2000	
Short-circuit protection	yes	
Type of short-circuit protection	yes (non-latching)	
Overload protection	yes	
Measuring/setting range		
Measuring range	0...250 bar	0...3625 psi
Measuring range [MPa]		0...25
Set point SP	1.5...250 bar	25...3625 psi
Set point SP [MPa]		0.15...25
Reset point rP	0.5...249 bar	10...3610 psi
Reset point rP [MPa]		0.05...24.9
Analog start point	0...200 bar	0...2900 psi
Analog start point [MPa]		0...20
Analog end point	50...250 bar	725...3625 psi
Analog end point [MPa]		5...25
In steps of	0.5 bar	5 psi
In steps of [MPa]		0.05

PY9001



Pressure sensor with display

PN-250-SE MFRKG/US/ /

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)				
Reaction times					
Response time [ms]	< 1.5				
Delay time programmable dS, dr [s]	0...50				
Damping process value dAP [s]	0...4				
Damping for the analog output dAA [s]	0...4				
Max. response time analog output [ms]	3				
Software / programming					
Parameter setting options	hysteresis / window; normally open / 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 class	A				
Process data analog	1				
Process data binary	2				
Min. process cycle time [ms]	2.3				
Supported DeviceIDs	<table border="1"> <thead> <tr> <th>Type of operation</th> <th>DeviceID</th> </tr> </thead> <tbody> <tr> <td>default</td> <td>460</td> </tr> </tbody> </table>	Type of operation	DeviceID	default	460
Type of operation	DeviceID				
default	460				
Operating conditions					
Ambient temperature [°C]	5...80				
Storage temperature [°C]	-40...100				
Protection	IP 67				

PY9001



Pressure sensor with display

PN-250-SE MFRKG/US/ /

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)
MTTF	[years]	143
Mechanical data		
Weight	[g]	675
Material	stainless steel (630/1.4542/17-4 PH); 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	homogenizer 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.	

PY9001

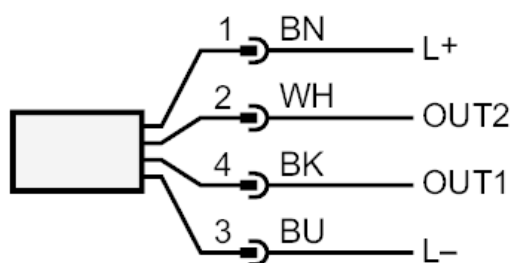


Pressure sensor with display

PN-250-SE MFRKG/US/ /

Electrical connection

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

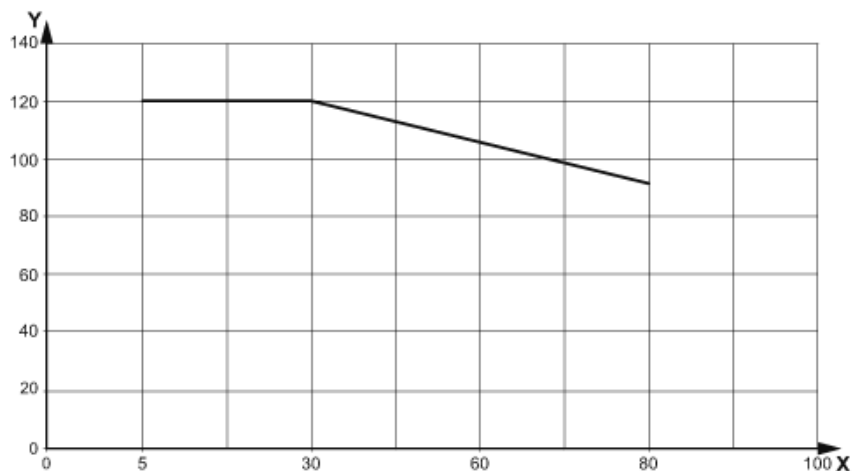


OUT1 switching output or IO-Link
OUT2 switching output or analog output
Colors to DIN EN 60947-5-2

Core colors :

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

Diagrams and graphs



X Ambient temperature

Y Medium temperature