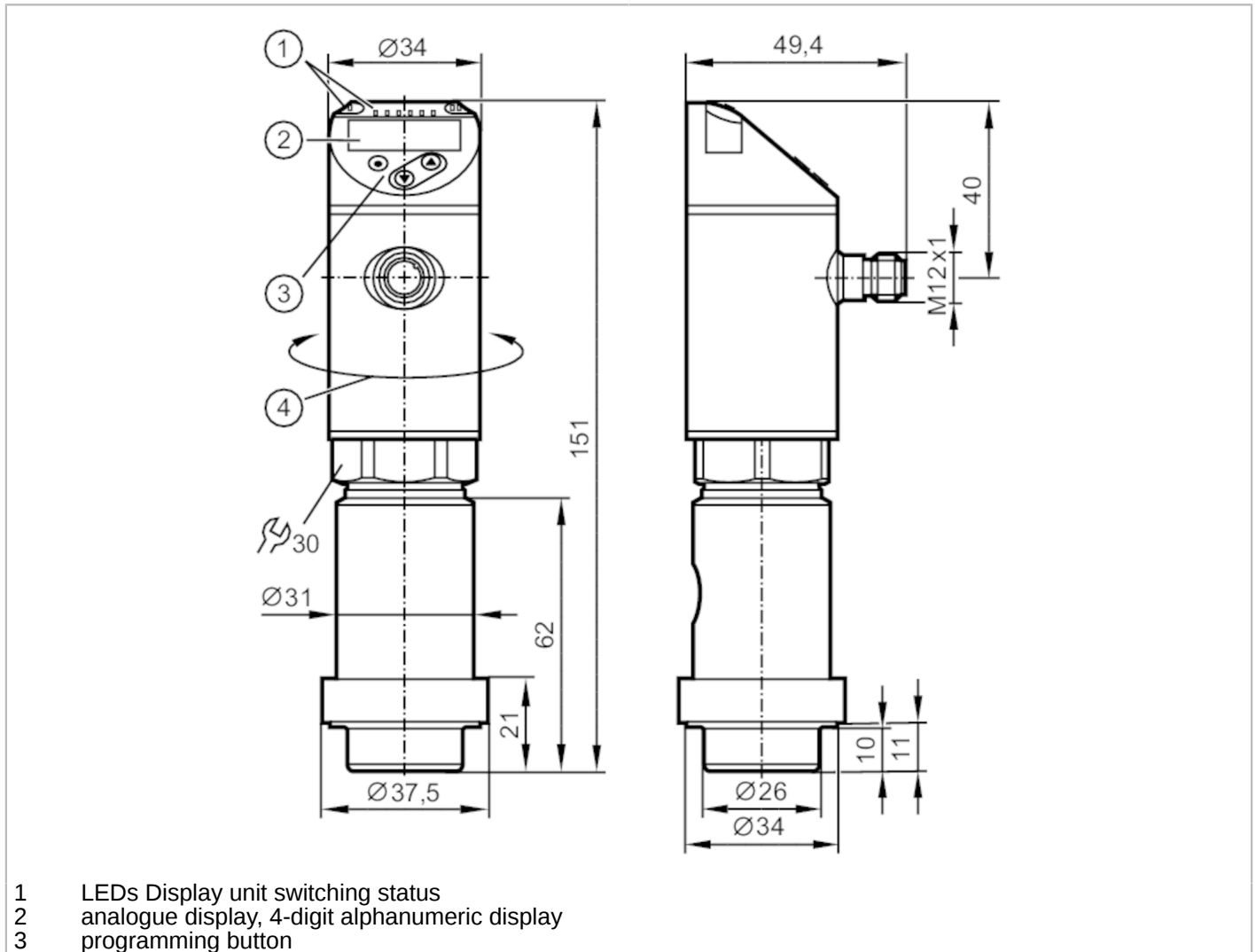


# PY9001



## Pressure sensor with display

PN-250-SE MFRKG/US/ /



Product characteristics			
Output signal	switching signal; analogue signal; IO-Link; (configurable)		
Measuring range	0...250 bar	0...3625 psi	0...25 MPa
Process connection	homogeniser connection		
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	500 bar	7250 psi	50 MPa
Min. bursting pressure	1000 bar	14500 psi	100 MPa
Vacuum resistance [mbar]	-1000		
Type of pressure	relative pressure		

# PY9001



## Pressure sensor with display

PN-250-SE MFRKG/JS/ /

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	
Measuring/setting range			
Measuring range		0...250 bar	0...3625 psi 0...25 MPa
Set point SP		1...250 bar	15...3625 psi 0.1...25 MPa
Reset point rP		0.5...249.5 bar	10...3620 psi 0.05...24.95 MPa
Analogue start point		0...200 bar	0...2900 psi 0...20 MPa
Analogue end point		50...250 bar	725...3625 psi 5...25 MPa
In steps of		0.5 bar	5 psi 0.05 MPa
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 16086)	
	[% 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)	

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## Pressure sensor with display

PN-250-SE MFRKG/JS/ /

	[% 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 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	460 d / 00 01 cc 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

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)
MTTF	[years]	143

# PY9001



## Pressure sensor with display

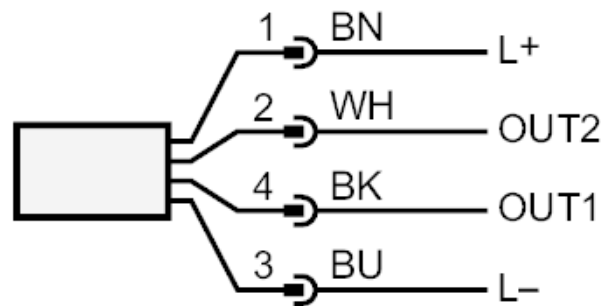
PN-250-SE MFRKG/US/ /

Mechanical data		
Weight [g]	675	
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



- 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