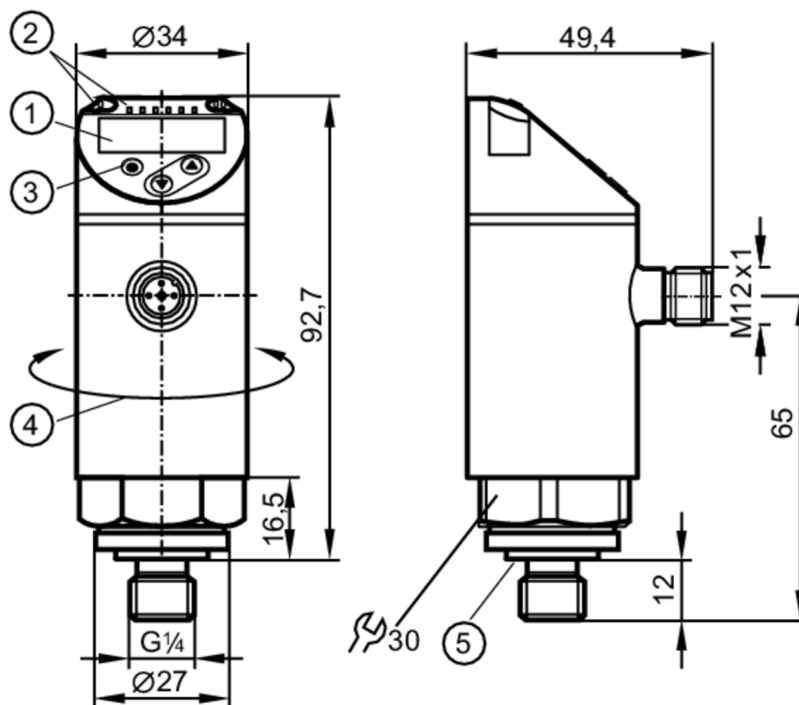




Pressure sensor with display

PE-100-SEG14-MFRKG/US/ /E



- 1 alphanumeric display 4-digit red/green
- 2 LEDs Display unit / Switching status
- 3 Programming button
- 4 upper part of the housing can be rotated 345°
- 5 sealing



Product characteristics

Output signal	switching signal; analog signal; IO-Link; (configurable)		
Measuring range	0...100 bar	0...1450 psi	0...10 MPa
Process connection	threaded connection G 1/4 external thread Internal thread:M5; DIN EN ISO 1179-2		

Application

System	gold-plated contacts		
Measuring element	ceramic-capacitive pressure measuring cell		
Application	for industrial applications		
Media	liquids and gases		
Medium temperature [°C]	-25...80		
Min. bursting pressure	650 bar	9400 psi	65 MPa
Pressure rating	300 bar	4350 psi	30 MPa
Vacuum resistance [mbar]	-1000		
Type of pressure	relative pressure		



Pressure sensor with display

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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 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...100 bar	0...1450 psi 0...10 MPa
Set point SP		0.6...100 bar	10...1450 psi 0.06...10 MPa
Reset point rP		0.2...99.6 bar	4...1444 psi 0.02...9.96 MPa
Analog start point		0...80 bar	0...1160 psi 0...8 MPa
Analog end point		20...100 bar	290...1450 psi 2...10 MPa
In steps of		0.2 bar	2 psi 0.02 MPa
Accuracy / deviations			
Notes on the accuracy / deviation		switch point accuracy, linearity error under DNV GL: < ± 1%: < ± 1%	
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]	< ± 0,25 (BFSL) / < ± 0,5 (LS); (Turn down 1:1; BFSL = Best Fit Straight Line; LS = limit value setting)	
Hvsteresis deviation		< ± 0.1; (Turn down 1:1)	



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	[% of the span]		
Long-term stability		< ± 0,05; (Turn down 1:1; per 6 months)	
	[% of the span]		
Temperature coefficient zero point		0,2; (-25...80 °C)	
	[% of the span / 10 K]		
Temperature coefficient span		0,2; (-25...80 °C)	
	[% of the span / 10 K]		
Reaction 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 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		Type of operation	DeviceID
		default	461
Operating conditions			
Ambient temperature	[°C]	-25...80	
Storage temperature	[°C]	-40...100	
Protection		IP 65; 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	20 g (10...2000 Hz)
MTTF	[years]	161	
UL approval		UL approval number	J012
Pressure equipment directive		sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	

PE2592



Pressure sensor with display

PE-100-SEG14-MFRKG/US/ /E

Mechanical data		
Weight	[g]	298
Material	stainless steel (1.4404 / 316L); PBT+PC-GF30; PBT-GF20; PC; EPDM	
Materials (wetted parts)	stainless steel (1.4404 / 316L); Al2O3 (99.9 %; ceramics); EPDM	
Min. pressure cycles	100 million	
Tightening torque	[Nm]	25...35; (recommended tightening torque; Depends on lubrication, seal and pressure rating)
Process connection	threaded connection G 1/4 external thread Internal thread:M5; DIN EN ISO 1179-2	
Process connection sealing	EPDM	
Restrictor element integrated	no (can be retrofitted)	
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		
		

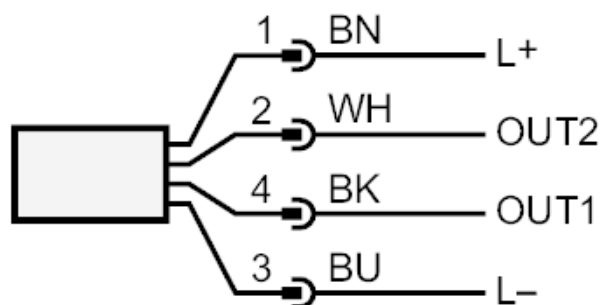
PE2592



Pressure sensor with display

PE-100-SEG14-MFRKG/US/ /E

Connection



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