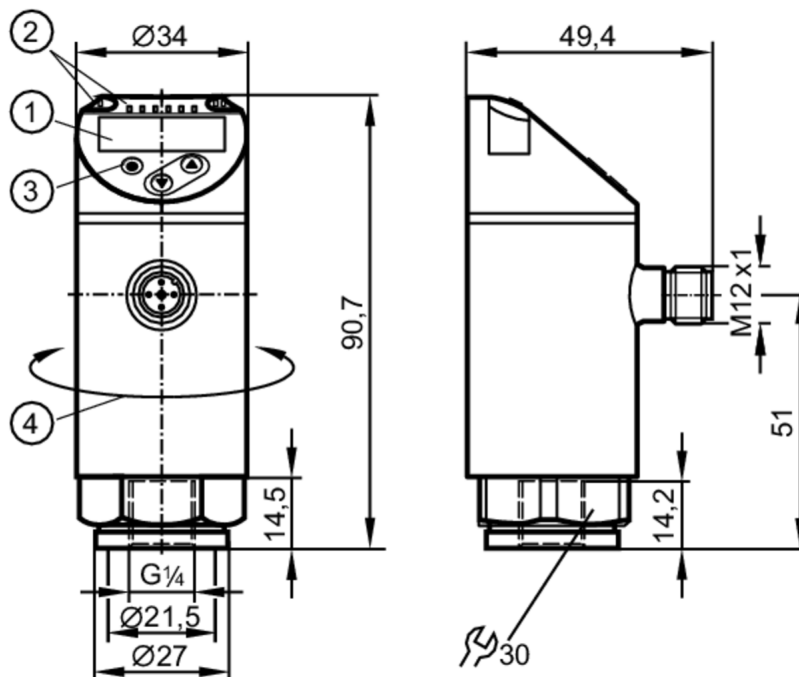




Pressure sensor with display

PE-025-RER14-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°



Product characteristics

Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1		
Measuring range	-1...25 bar	-14.5...362.5 psi	-0.1...2.5 MPa
Process connection	threaded connection G 1/4 internal thread		

Application

Special feature	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	350 bar	5075 psi	35 MPa
Pressure rating	150 bar	2175 psi	15 MPa
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		



Pressure sensor with display

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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	-1...25 bar	-14.5...362.5 psi	-0.1...2.5 MPa
Set point SP	-0.85...25 bar	-12...362.5 psi	-0.085...2.5 MPa
Reset point rP	-0.95...24.9 bar	-13.5...361 psi	-0.095...2.49 MPa
Analogue start point	-1...20 bar	-14.5...290 psi	-0.1...2 MPa
Analogue end point	4...25 bar	58...362.5 psi	0.4...2.5 MPa
In steps of	0.05 bar	0.5 psi	0.005 MPa
Accuracy / deviations			
Switch point accuracy [X21]	< ± 0,4; (Turn down 1:1)		
Repeatability [X21]	< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)		
Characteristics deviation [X21]	< ± 0,25 (BFSL) / < ± 0,5 (LS); (Turn down 1:1; BFSL = Best Fit Straight Line; LS = limit value setting)		
Hysteresis deviation [X21]	< ± 0,1; (Turn down 1:1)		
Long-term stability [X21]	< ± 0,05; (Turn down 1:1; per 6 months)		
Temperature coefficient zero point [X22]	0,2; (-25...80 °C)		
Temperature coefficient span [X22]	0,2; (-25...80 °C)		
Notes on the accuracy / deviation	switch point accuracy, linearity error under DNV GL: < ± 1%: < ± 1%		
Response times			
Response time [ms]	< 1.5		
Delay time programmable dS, dr [s]	0...50		



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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	
Supported DeviceIDs	Type of operation	DeviceID	
	default	462	
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	[ANN]	161	
UL approval	UL Approval no.	J012	
Pressure Equipment Directive	Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request		
Mechanical data			
Weight	[g]	216.6	
Materials	stainless steel (1.4404 / 316L); PBT+PC-GF30; PBT-GF20; PC		
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 internal thread		
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	

PE2093



Pressure sensor with display

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Remarks

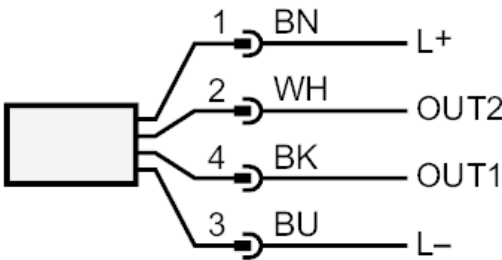
Pack quantity 1 pcs.

Electrical connection

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



Connection



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