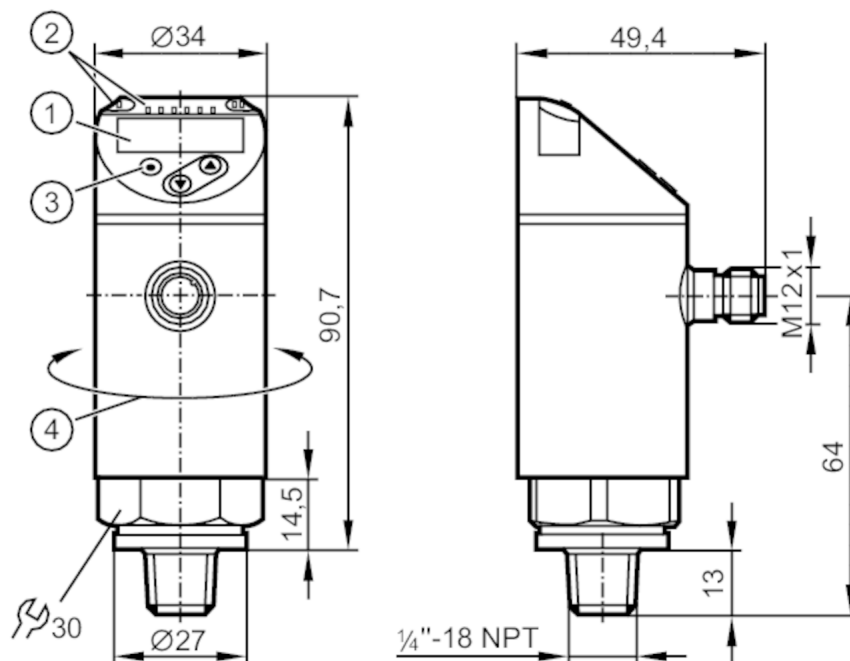




Pressure sensor with display

PN-,25-REN14-MFRKG/US/ IV



- 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°



Application			
Measuring element	ceramic-capacitive pressure measuring cell		
Application	for industrial applications		
Media	liquids and gases		
Medium temperature [°C]	-25...80		
Pressure rating	2400 inH2O	6000 mbar	600 kPa
Min. bursting pressure	12000 inH2O	30000 mbar	3000 kPa
Vacuum resistance [mbar]	-300		
Type of pressure	relative pressure		
MAWP (for applications according to CRN)	4000 inH2O	10000 mbar	1000 kPa
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		



Pressure sensor with display

PN-,25-REN14-MFRKG/US/ /V

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		-5...100.4 inH2O	-12.5...250 mbar -1.25...25 kPa
Set point SP		-4.4...100.4 inH2O	-11...250 mbar -1.1...25 kPa
Reset point rP		-4.8...100 inH2O	-12...249 mbar -1.2...24.9 kPa
Analogue start point		-5...80.2 inH2O	-12.5...200 mbar -1.25...20 kPa
Analogue end point		15...100.4 inH2O	37.5...250 mbar 3.75...25 kPa
In steps of		0.2 inH2O	0.5 mbar 0.05 kPa
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]		< ± 0,25 (BFSL) / < ± 0,5 (LS); (Turn down 1:1; BFSL = Best Fit Straight Line; LS = limit value setting)	
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; (-25...80 °C)	
Temperature coefficient span [% of the span / 10 K]		0,2; (-25...80 °C)	



Pressure sensor with display

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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	476 d / 00 01 dc 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]	-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]	145
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]	244.7
Materials	stainless steel (1.4404 / 316L); PBT+PC-GF30; PBT-GF20; PC	
Materials (wetted parts)	stainless steel (1.4404 / 316L); Al2O3 (96 %; ceramics); FKM	
Min. pressure cycles	100 million	
Tightening torque	[Nm]	> 50; (depends on lubrication, seal and pressure rating)
Process connection	threaded connection 1/4 NPT external thread	
Restrictor element integrated	no (can be retrofitted)	

PN2698



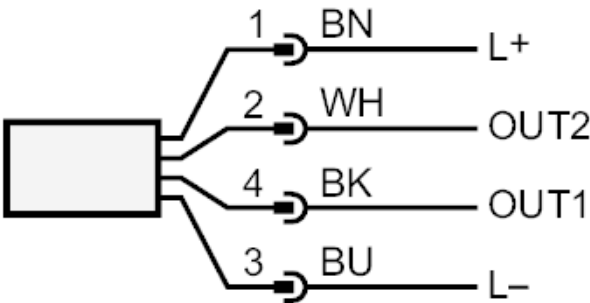
Pressure sensor with display

PN-,25-REN14-MFRKG/US/ IV

Displays / operating elements		
Display	Display unit	4 x LED, green (mbar, mmWS, kPa, inH2O)
	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		



Connection



OUT1	switching output
OUT2	switching output
	analogue output
Core colours :	
BK =	black
BN =	brown
BU =	blue
WH =	white