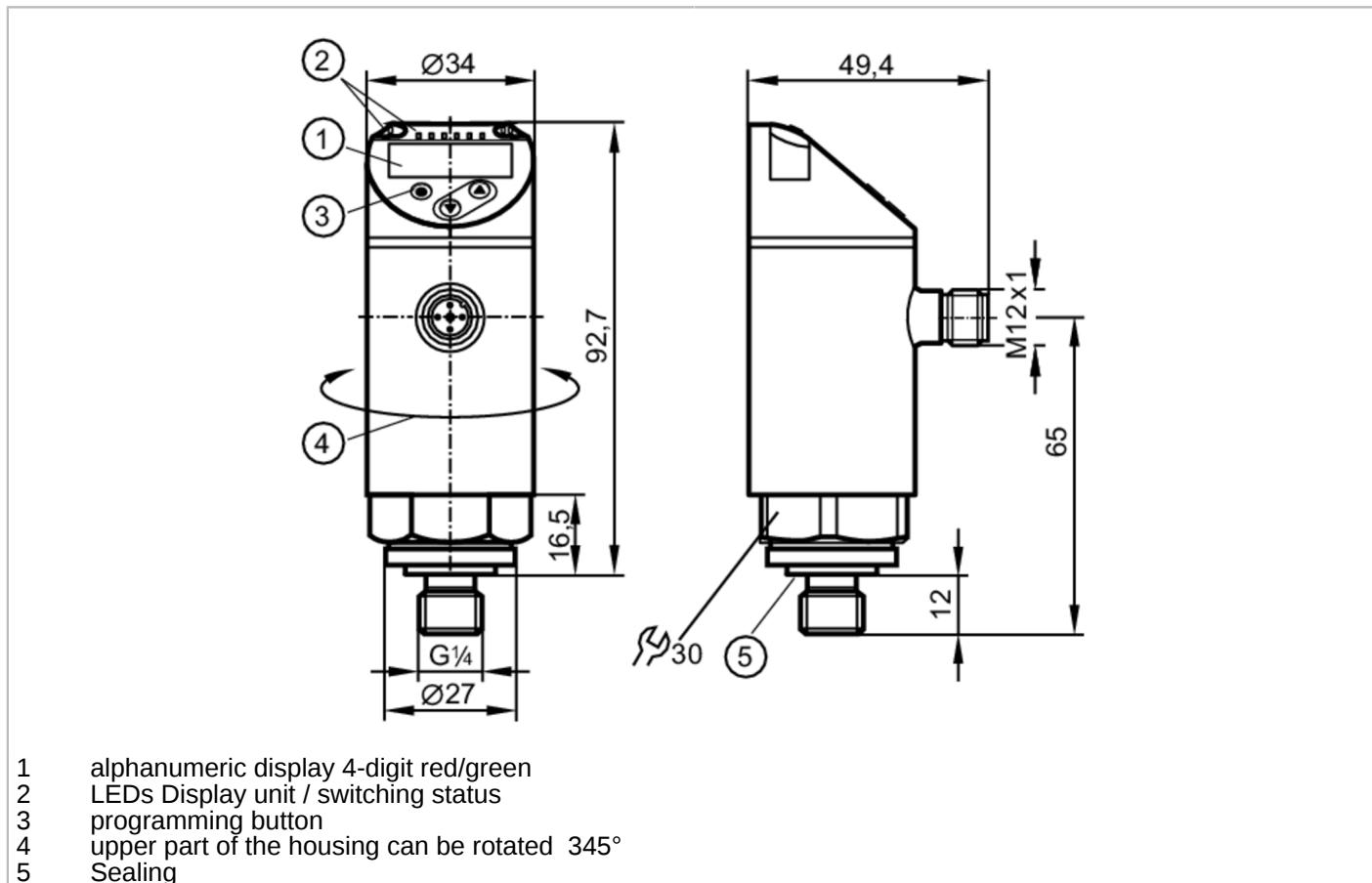


PE2596



Pressure sensor with display

PE-2,5-REG14-MFRKG/US/ /E



Product characteristics

Output signal	switching signal; analogue signal; IO-Link; (configurable)			
Measuring range	-0.125...2.5 bar	-125...2500 mbar	-1.8...36.25 psi	-12.5...250 kPa
Process connection	threaded connection G 1/4 external thread internal thread:M5; DIN EN ISO 1179-2			

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		
Pressure rating	20 bar	290 psi	2000 kPa
Min. bursting pressure	50 bar	725 psi	5000 kPa
Vacuum resistance [mbar]	-1000		
Type of pressure	relative pressure		



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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 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		-0.125...2.5 bar	-125...2500 mbar	-1.8...36.25 psi	-12.5...250 kPa
Set point SP		-0.11...2.5 bar		-1.6...36.25 psi	-11...250 kPa
Reset point rP		-0.12...2.49 bar		-1.75...36.1 psi	-12...249 kPa
Analogue start point		-0.125...2 bar		-1.8...29 psi	-12.5...200 kPa
Analogue end point		0.375...2.5 bar		5.45...36.25 psi	37.5...250 kPa
In steps of		0.005 bar		0.05 psi	0.5 kPa
Accuracy / deviations					
Switch point accuracy		< ± 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		< ± 0,05; (Turn down 1:1; per 6 months)			

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[% of the span]		
Temperature coefficient zero point		0,2; (-25...80 °C)
[% of the span / 10 K]		
Temperature coefficient span [% of the span / 10 K]		
Temperature coefficient span [% of the span / 10 K]		0,2; (-25...80 °C)
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		464 d / 00 01 d0 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
Vibration resistance		DIN EN 60068-2-6
MTTF [years]		171
UL approval		UL Approval no. J012
Pressure Equipment Directive		Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request

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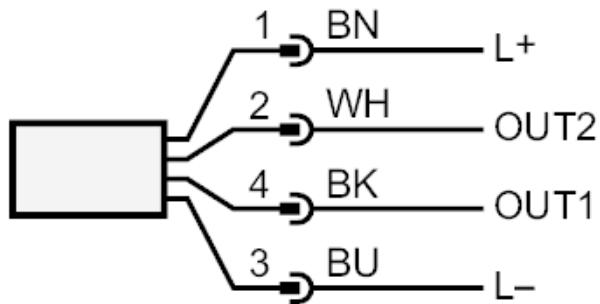
Mechanical data				
Weight	[g]	260.9		
Materials	stainless steel (1.4404 / 316L); PBT+PC-GF30; PBT-GF20; PC; EPDM			
Materials (wetted parts)	stainless steel (1.4404 / 316L); Al2O3 (99.9%; ceramics); EPDM			
Min. pressure cycles		100 million		
Tightening torque	[Nm]	25...35; (recommended tightening torque; 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, kPa)		
	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				



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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