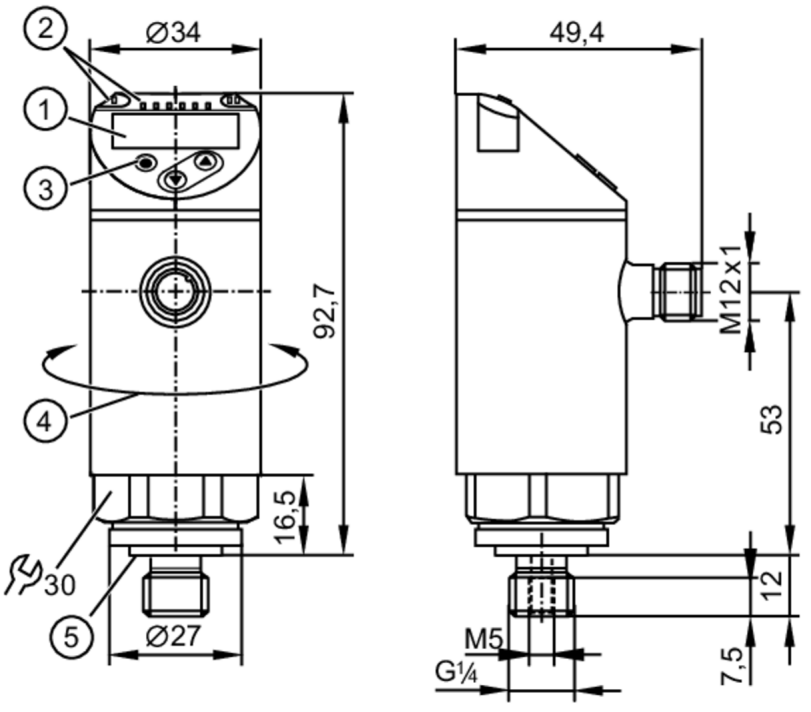
PN7597

Pressure sensor with display

PN-001BREG14-QFRKG/US/ /V



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					
Number of inputs and outputs	Number of digital outputs: 2				
Measuring range	0...1 bar	0...1000 mbar	0...14.5 psi	0...29.5 inHg	0...100 kPa
Process connection	threaded connection G 1/4 external thread internal thread:M5				
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	30000 mbar	450 psi	880 inHg	3000 kPa	
Pressure rating	10000 mbar	145 psi	290 inHg	1000 kPa	
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				

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Integrated watchdog	yes				
Inputs / outputs					
Number of inputs and outputs	Number of digital outputs: 2				
Outputs					
Total number of outputs	2				
Output signal	switching 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]	2.5				
Permanent current rating of switching output DC [mA]	150; (200 (...60 °C) 250 (...40 °C))				
Switching frequency DC [Hz]	< 170				
Short-circuit protection	yes				
Type of short-circuit protection	pulsed				
Overload protection	yes				
Measuring/setting range					
Measuring range	0...1 bar	0...1000 mbar	0...14.5 psi	0...29.5 inHg	0...100 kPa
Set point SP	10...1000 mbar	0.1...14.5 psi	0.2...29.5 inHg	1...100 kPa	
Reset point rP	5...995 mbar	0.05...14.45 psi	0.1...24.9 inHg	0.5...99.5 kPa	
In steps of	5 mbar	0.05 psi	0.1 inHg	0.5 kPa	
Accuracy / deviations					
Switch point accuracy [% of the span]	< ± 0,5				
Repeatability [% of the span]	< ± 0,1; (with temperature fluctuations < 10 K)				
Characteristics deviation [% of the span]	< ± 0,25 (BFSL) / < ± 0,5 (LS); (BFSL = Best Fit Straight Line; LS = limit value setting)				
Hysteresis deviation [% of the span]	< ± 0,25				
Long-term stability [% of the span]	< ± 0,05; (per 6 months)				
Temperature coefficient zero point [% of the span / 10 K]	< ± 0,2; (-0...80 °C)				
Temperature coefficient span [% of the span / 10 K]	< ± 0,2; (-0...80 °C)				
Response times					
Response time [ms]	< 3				
Delay time programmable dS, dr [s]	0...50				
Software / programming					
Parameter setting options	hysteresis / window; normally open / normally closed; switching logic; switch-on/switch-off delay; Damping; Display unit				

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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	405
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]	260	
UL approval		UL Approval no.	J001
Pressure Equipment Directive		Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	
Mechanical data			
Weight	[g]	259	
Materials		stainless steel (1.4404 / 316L); PBT+PC-GF30; PBT-GF20; PC	
Materials (wetted parts)		stainless steel (1.4404 / 316L); ceramics; FKM	
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	
Restrictor element integrated		no (can be retrofitted)	
Displays / operating elements			
Display		Display unit	4 x LED, green (mbar, psi, kPa, inHg)
		switching status	2 x LED, yellow
		measured values	alphanumeric display, red/green 4-digit
Remarks			
Pack quantity		1 pcs.	

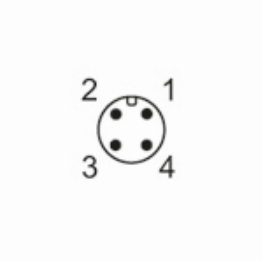
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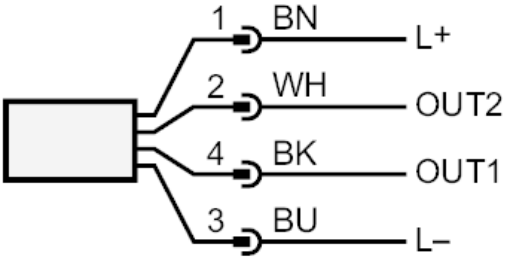
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Electrical connection

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



Connection



OUT1	switching output IO-Link
OUT2	switching output
	colours to DIN EN 60947-5-2
	Core colours :
BK =	black
BN =	brown
BU =	blue
WH =	white