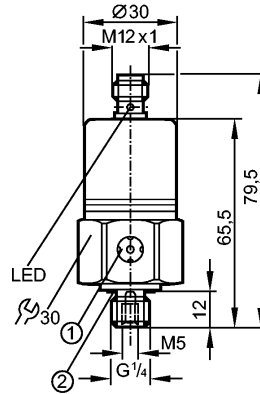


PP0524

PP-010-RBG14-QFNKG/US/ IV

Pressure sensors



- 1: ventilation
- 2: sealing FPM / DIN 3869-14



Product characteristics

Electronic pressure sensor

Adjustment of the switch point by teach function

Process connection: G ¼ A / M5 I

2 outputs

OUT1 = switching output

OUT2 = switching output or diagnostic output

Measuring range: -1...10 bar / -14.5...145 psi / -0.1...1.0 MPa

Application

Application	Type of pressure: relative pressure Liquids and gases		
Pressure rating	75 bar	1087 psi	7.5 MPa
Bursting pressure min.	150 bar	2175 psi	15 MPa
Medium temperature [°C]	-25...90		

Electrical data

Electrical design	DC NPN
Operating voltage [V]	9.6...36 DC 1)
Current consumption [mA]	< 45
Insulation resistance [MΩ]	> 100 (500 V DC)
Protection class	III
Reverse polarity protection	yes

Outputs

Output	2 outputs OUT1 = switching output OUT2 = switching output or diagnostic output
Output function	2 x normally open / closed programmable or 1 x normally open / closed programmable + 1 x normally closed (diagnostic function)
Current rating [mA]	2 x 250
Voltage drop [V]	< 2
Short-circuit protection	yes (non-latching)
Overload protection	yes
Switching frequency [Hz]	170

Measuring / setting range



PP0524

PP-010-RBG14-QFNKG/US/ /V

Pressure sensors

Measuring range	-1...10 bar	-14.5...145 psi	-0.1...1.0 MPa
Setting range			
Set point, SP	-0.90...10.00 bar	-13...145 psi	-0.090...1.000 MPa
Reset point, rP	-0.95...9.95 bar	-14...144 psi	-0.095...0.995 MPa
in steps of	0.05 bar	1 psi	0.005 MPa
Factory setting	SP1 = 2.50 bar; rP1 = 2.30 bar SP2 = 7.50 bar; rP2 = 7.30 bar OUT1 = Hno; OUT2 = Hno		

Accuracy / deviations

Accuracy / deviations (in % of the span)	
Switch point accuracy	< ± 0.5
Characteristics deviation *)	< ± 0.25 (BFSL) / < ± 0.5 (LS)
Hysteresis	< ± 0.1
Repeatability **)	< ± 0.1
Long-term stability ***)	< ± 0.1
Temperature coefficients (TEMPCO) in the temperature range 0...80° C (in % of the span per 10 K)	
Greatest TEMPCO of the zero point	0.2
Greatest TEMPCO of the span	0.2

Reaction times

Power-on delay time [s]	0.3
Min. response time switching output [ms]	3
Damping for the switching output (dAP) [s]	0.003 - 0.006 - 0.010 - 0.017 - 0.060 - 0.125 - 0.250 - 0.500

Environment

Ambient temperature [°C]	-25...85
Storage temperature [°C]	-40...100
Protection	IP 68 ****) / IP 69K

Tests / approvals

EMC	noise immunity	according to EN 61000-6-2 4 kV contact discharge / 15 kV air discharge
	EN 61000-4-2 ESD:	20 V/m
	EN 61000-4-3 HF radiated:	4 kV coupling clamp
	EN 61000-4-4 Burst:	0.5 kV supply / 1 kV signal for DC units
	EN 61000-4-5 Surge:	30 V
	EN 61000-4-6 HF conducted:	
Shock resistance	DIN IEC 60068-2-27 / DIN IEC 60068-2-29:	1000 g
	DIN EN 61373:	Category 3
Vibration resistance	DIN IEC 68-2-6:	20 g (10...2000 Hz)
	DIN EN 60068-2-64:	14 g
	DIN EN 61373:	Category 2
MTTF [Years]		309

Mechanical data

Process connection	G ¼ A / M5 I
Materials (wetted parts)	stainless steel (303S22); ceramics; FPM (Viton)
Housing materials	stainless steel (304S15); FPM (Viton); EPDM/X (Santoprene); PA

PP0524

PP-010-RBG14-QFNKG/US/ /V

Pressure sensors

Switching cycles min.	100 million
Weight [kg]	0.225

Displays / operating elements

Display	Power 2 x LED green Switching status 2 x LED yellow
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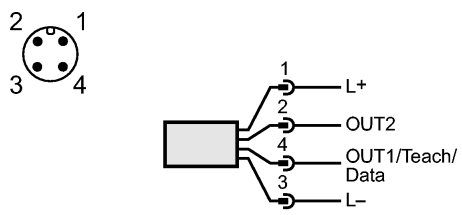
Electrical connection

Connection	M12 connector
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Wiring

-----OUT1/Teach/Data-----
data channel for bidirectional communication
in addition:
switching signal for pressure limit value or
input for teach signal

-----OUT2-----
switching signal for pressure limit value or
diagnostic signal



Remarks

Remarks	<p>1) supply voltage for communication mode: 18...32 V DC *) BFSL = Best Fit Straight Line / LS = Limit Value Setting **) with temperature fluctuations < 10 K ***) in % of the span per year *****) 7 days / 1 m water depth / 0.1 bar</p>
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Pack quantity [piece]	1
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