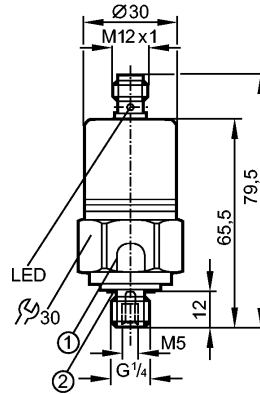


PP0520

PP-400-SBG14-QFNKG/US/ IV

Pressure sensors



1: Pressure relief mechanism
 No mechanical force must be exerted on the pressure relief mechanism.
 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: 0...400 bar / 0...5800 psi / 0...40 MPa

Application

Application	Type of pressure: relative pressure Liquids and gases Use in gases at pressures > 25 bar only after contacting the manufacturer ifm		
Pressure rating	600 bar	8700 psi	60 MPa
Bursting pressure min.	1000 bar	14500 psi	100 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

PP0520

PP-400-SBG14-QFNKG/US/ /V

Pressure sensors

Measuring / setting range		
Measuring range	0...400 bar	0...5800 psi / 0...40 MPa
Setting range		
Set point, SP	4...400 bar	60...5790 psi / 0.4...40.0 MPa
Reset point, rP	2...398 bar	30...5760 psi / 0.2...39.8 MPa
in steps of	2 bar	30 psi / 0.2 MPa
Factory setting	SP1 = 100 bar; rP1 = 92 bar SP2 = 300 bar; rP2 = 292 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 EN 61000-4-2 ESD: EN 61000-4-3 HF radiated: EN 61000-4-4 Burst: EN 61000-4-5 Surge: EN 61000-4-6 HF conducted:	according to EN 61000-6-2 4 kV contact discharge / 15 kV air discharge 20 V/m 4 kV coupling clamp 0.5 kV supply / 1 kV signal for DC units 30 V
Shock resistance	DIN IEC 60068-2-27 / DIN IEC 60068-2-29: DIN EN 61373:	1000 g Category 3
Vibration resistance	DIN IEC 68-2-6: DIN EN 60068-2-64 DIN EN 61373:	20 g (10...2000 Hz) 14 g Category 2
MTTF [Years]	309	
UL approval number	J011	
Mechanical data		
Process connection	G ¼ A / M5 I	

PP0520

PP-400-SBG14-QFNKG/US/ /V

Pressure sensors

Materials (wetted parts)	stainless steel (303S22); ceramics; FPM (Viton)
Housing materials	stainless steel (304S15); FPM (Viton); EPDM/X (Santoprene); PA
Switching cycles min.	100 million
Weight [kg]	0.223

Displays / operating elements

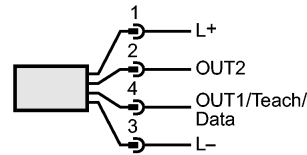
Display	Power 2 x LED green Switching status 2 x LED yellow
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Electrical connection

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	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
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Pack quantity [piece]	1
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