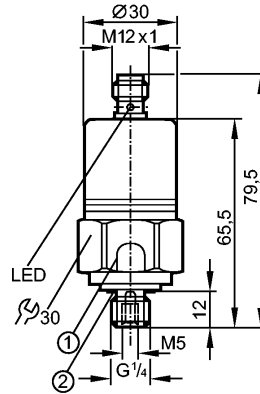


**PP0521**

PP-250-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...250 bar / 0...3625 psi / 0...25 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	400 bar	5800 psi	40 MPa
Bursting pressure min.	850 bar	12300 psi	85 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

**PP0521**

PP-250-SBG14-QFNKG/US/ /V

**Pressure sensors**

Measuring / setting range			
Measuring range	0...250 bar	0...3625 psi	0...25 MPa
Setting range			
Set point, SP	2...250 bar	40...3620 psi	0.2...25.0 MPa
Reset point, rP	1...249 bar	20...3600 psi	0.1...24.9 MPa
in steps of	1 bar	20 psi	0.1 MPa
Factory setting	SP1 = 63 bar; rP1 = 58 bar SP2 = 188 bar; rP2 = 183 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		
UL approval number	J010		
Mechanical data			
Process connection	G ¼ A / M5 I		

**PP0521**

PP-250-SBG14-QFNKG/US/ IV

**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]	0.221

**Displays / operating elements**

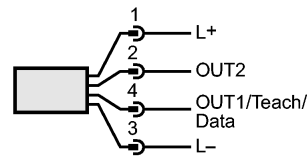
Display	Power 2 x LED green Switching status 2 x LED yellow
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**Electrical connection**

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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