

New generation available: PN2292

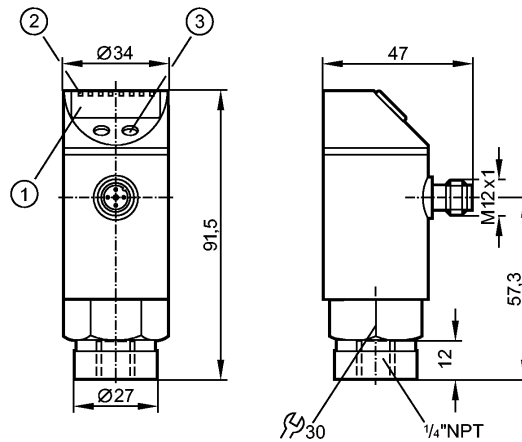
efectorsoo

PN2222



PN-100-SBN14-MFRKG/US/ IV

Pressure sensors



- 1: 4-digit alphanumeric display
- 2: LEDs (display unit / switching status)
- 3: Programming button



Product characteristics

Combined pressure sensor

Quick disconnect

Zero and span adjustable

Function programmable

Process connection: 1/4" NPT

2 outputs

OUT1 = switching output

OUT2 = switching output or analog output

4-digit alphanumeric display

Measuring range: 0...1450 psi / 0...100 bar / 0...10 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	4350 psi	300 bar	30 MPa
Bursting pressure min.	9400 psi	650 bar	65 MPa
Medium temperature [°C]	-25...80		

Electrical data

Electrical design

DC PNP/NPN

Operating voltage [V]

18...32 DC 1)

Current consumption [mA]

< 35

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 analog output

Output function

2 x normally open / closed programmable or 1 x normally open / closed programmable + 1 x analog (4...20 mA / 0...10 V; programmable 1:4)

Current rating [mA]

2 x 250

Voltage drop [V]

< 2

Short-circuit protection

yes (non-latching)

PN2222 - Combined pressure sensor - eclass: 27201302 / 27-20-13-02

Overload protection	yes		
Switching frequency [Hz]	≤ 500		
Analog output	4...20 mA / 0...10 V		
Max. load [Ω]	4...20 mA: max. (U _b - 10 V) x 50 / 0...10 V; min. 2000		
Measuring / setting range			
Measuring range	0...1450 psi	0...100 bar	0...10 MPa
Setting range			
Set point, SP	12...1450 psi	0.8...100.0 bar	0.08...10.00 MPa
Reset point, rP	6...1444 psi	0.4...99.6 bar	0.04...9.96 MPa
Analog start point, ASP	0...1088 psi	0.0...75.0 bar	0.00...7.50 MPa
Analog end point, AEP	364...1450 psi	25.0...100.0 bar	2.50...10.00 MPa
in steps of	2 psi	0.2 bar	0.02 MPa
Factory setting	SP1 = 362 psi; rP1 = 334 psi SP2 = 1088 psi; rP2 = 1058 psi ASP = 0 psi; AEP = 1450 psi		
Accuracy / deviations			
Accuracy / deviations (in % of the span) Turn down 1:1			
Switch point accuracy	< ± 0.4		
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]	1.5		
Damping for the switching output (dAP) [s]	0; 0.01...4.00		
Damping for the analog output (dAA) [s]	0; 0.01...4.00		
Response time analog output [ms]	3		
Integrated watchdog	yes		
Software / programming			
Programming options	hysteresis / window function; N.O. / N.C; output polarity; current / voltage outputs; damping; calibration of displayed values; display can be rotated / deactivated; display unit		
Interfaces			
IO-Link Device			
Transfer type	COM2 (38.4 kBaud)		
IO-Link revision	1.0		
Environment			
Ambient temperature [°C]	-25...80		
Storage temperature [°C]	-40...100		
Protection	IP 67		
Tests / approvals			
EMC	EN 61000-4-2 ESD: 4 kV CD / 8 kV AD EN 61000-4-3 HF radiated: 10 V/m EN 61000-4-4 Burst: 2 kV EN 61000-4-5 Surge: 0.5/1 kV EN 61000-4-6 HF conducted: 10 V		
Shock resistance	DIN IEC 68-2-27: 50 g (11 ms)		
Vibration resistance	DIN IEC 68-2-6: 20 g (10...2000 Hz)		
MTTF [Years]	131		
Mechanical data			
Process connection	¼" NPT		

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Materials (wetted parts)	stainless steel (303S22); ceramics; FPM (Viton)
Housing materials	stainless steel (304S15); stainless steel 316L / 1.4404; PC (Makrolon); PBT (Pocan); PEI; FPM (Viton)
Switching cycles min.	100 million
Weight [kg]	0.267
Displays / operating elements	
Display	Display unit 3 x LED green Switching status 2 x LED yellow Functioning display 4-digit alphanumeric display Measured values 4-digit alphanumeric display

Electrical connection	
Connection	M12 connector; gold-plated contacts

Wiring

Programming of the output function (OUT1 / OUT2):

- Hno = hysteresis / normally open
- Hnc = hysteresis / normally closed
- Fno = window function / normally open
- Fnc = window function / normally closed

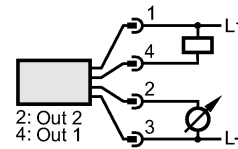
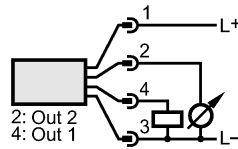
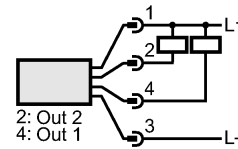
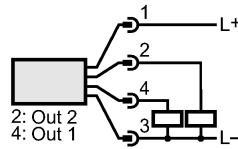
Complementary outputs:

output 1: = Hno, output 2: = Hnc
(with the same SP / rP)

Programming of the analog output (OUT2):

I = current output (4...20 mA)

U = voltage output (0...10 V)



Remarks

Remarks

- 1) to EN50178, SELV, PELV
- *) BFSL = Best Fit Straight Line / LS = Limit Value Setting
- ***) with temperature fluctuations < 10 K
- *** in % of the span per year

Pack quantity [piece]	1
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