

- 1: 4-digit alphanumeric display
- 2: status LEDs
- 3: Programming button



Product characteristics

Combined pressure sensor

Quick disconnect

no dead space

Freely rotatable housing 350°

Zero and span adjustable

Function programmable

Sealing cone G 1 male

Process connection: Sealing cone G 1 male

2 Output

OUT1 = Switching output

OUT2 = Analog output

4-digit alphanumeric display

Measuring range: -1.0...100.0 bar / -15...1450 psi / -0.10...10.00 MPa

Application

Application

Type of pressure: relative pressure
Hygienic systems, viscous media and liquids with suspended particles
Liquids and gases
Use in gases at pressures > 25 bar only after contacting the manufacturer ifm

Pressure rating	200 bar	2900 psi	20 MPa
Bursting pressure min.	650 bar	9425 psi	65 MPa
Medium temperature [°C]	-25...125 (145 max. 1h)		
Electrical data			
Electrical design	DC PNP/NPN		
Operating voltage [V]	18...32 DC		
Current consumption [mA]	< 50		
Insulation resistance [MΩ]	> 100 (500 V DC)		
Protection class	III		
Reverse polarity protection	yes		

Outputs

PI2692 - Combined pressure sensor - eclass: 27201302 / 27-20-13-02

Output	2 Output OUT1 = Switching output OUT2 = Analog output		
Output function	1 x normally open / closed programmable + 1 x analog (I / U, scaleable 1:4)		
Current rating [mA]	250		
Voltage drop [V]	< 2		
Short-circuit protection	yes (non-latching)		
Overload protection	yes		
Switching frequency [Hz]	6		
Analog output	I: 4...20 mA (Ineg: 20...4 mA) / U: 0...10 V (Uneg: 10...0 V)		
Max. load [Ω]	I / Ineg: max. (Ub - 10 V) x 50; U / Uneg: min. 2000		
Measuring / setting range			
Display unit	bar, psi, MPa, % der Spanne		
Measuring range	-1.0...100.0 bar	-15...1450 psi	-0.10...10.00 MPa
Setting range			
Set point, SP	-0.8...100.0 bar	-13...1450 psi	-0.08...10.00 MPa
Reset point, rP	-1.0...99.8 bar	-15...1448 psi	-0.10...9.98 MPa
Analog start point, ASP	-1.0...75.0 bar	-15...1088 psi	-0.10...7.50 MPa
Analog end point, AEP	24.0...100.0 bar	348...1450 psi	2.40...10.00 MPa
in steps of	0.1 bar	1 psi	0.01 MPa
Factory setting	SP1 = 25.0 bar; rP1 = 23.0 bar ASP = 0.0 bar; AEP = 100.0 bar		
Accuracy / deviations			
Accuracy / deviations (in % of the span) Turn down 1:1			
Switch point accuracy	< ± 0.5		
Characteristics deviation *)	< ± 0.5		
Linearity	< ± 0.15		
Hysteresis	< ± 0.15		
Repeatability **)	< ± 0.1		
Long-term stability ***)	< ± 0.1		
Temperature coefficients (TEMPCO) in the temperature range 0...70° 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]	0.5		
Min. response time switching output [ms]	100		
Damping for the switching output (dAP) [s]	0.1...100.0		
Damping for the analog output (dAA) [s]	0.1...100.0		
Step response time analogue output [ms]	25		
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		
Environment			
Ambient temperature [°C]	-25...80		
Storage temperature [°C]	-40...100		
Protection	IP 67 / IP 69K		
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		

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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]		163
Mechanical data		
Process connection	Sealing cone G 1 male	
Materials (wetted parts)	ceramics; PTFE; stainless steel 316L / 1.4435; surface characteristics: Ra < 0.4 / Rz 4	
Housing materials	stainless steel 316L / 1.4404; PC (Makrolon); PBT (Pocan); PEI; FPM (Viton); PTFE	
Switching cycles min.	100 million	
Weight [kg]	0.452	
Displays / operating elements		
Display	Display unit 4 x LED green Switching status LED yellow Function 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-----

- Switching output

Hno = hysteresis / normally open

Hnc = hysteresis / normally closed

Fno = window function / normally open

open

Fnc = window function / normally closed

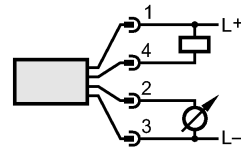
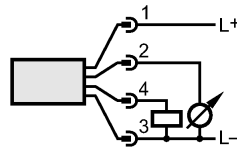
closed

-----OUT2-----

- Analog output

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

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



Remarks

Remarks

*) linearity, incl. hysteresis and repeatability;
(limit value setting to DIN 16086)

***) with temperature fluctuations < 10 K

***) in % of the span per year

The 3-A qualification is only valid if adapters with 3-A qualification are used for installation.

Pack quantity [piece]

1