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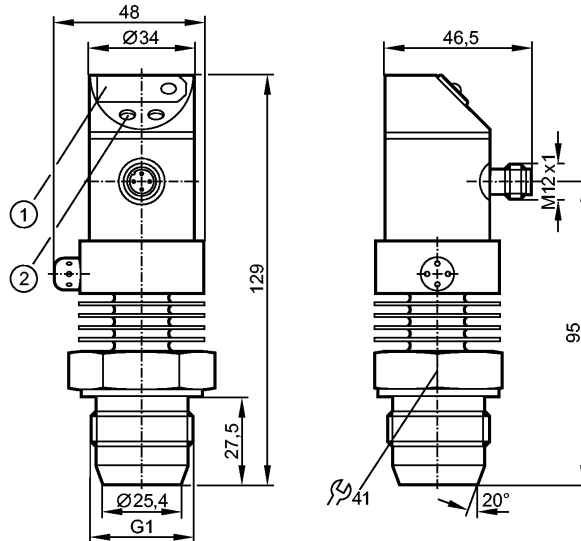
efectorsoo

PI2657



PI-001BREA01-MFRKG/US/ /P

Pressure sensors



1: 7-segment LED display

2: Programming button



EHEHG Certified FDA

Product characteristics

Combined pressure sensor

Quick disconnect

no dead space

Freely rotatable housing 350°

Zero and span adjustable

Function programmable

Process connection: G 1 A

2 outputs

OUT1 = switching output

OUT2 = switching output or analog output

7-segment LED display

Measuring range: -50...1000 mbar / -0.7...14.5 psi / -5.0...100 kPa

Application

Application

Type of pressure: relative pressure
Hygienic systems, viscous media and liquids with suspended particles
Liquids and gases

Pressure rating

10000 mbar

145 psi

1000 kPa

Bursting pressure min.

30000 mbar

450 psi

3000 kPa

Medium temperature

[°C]

-25...125 (145 max. 1h)

Electrical data

Electrical design

DC PNP/NPN

Operating voltage

[V]

20...30 DC

Current consumption

[mA]

< 60

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

PI2657 - Combined pressure sensor - eclass: 27201302 / 27-20-13-02

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)		
Overload protection	yes		
Switching frequency [Hz]	≤ 170		
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			
Display unit	mbar, psi, kPa		
Measuring range	-50...1000 mbar	-0.7...14.5 psi	-5.0...100 kPa
Setting range			
Set point, SP	-45...999 mbar	-0.7...14.5 psi	-4.5...99.9 kPa
Reset point, rP	-50... 994 mbar	-0.7...14.4 psi	-5.0...99.4 kPa
Analog start point, ASP	-50...749 mbar	-0.7...10.9 psi	-5.0...74.9 kPa
Analog end point, AEP	200...999 mbar	2.9...14.5 psi	20.0...99.9 kPa
in steps of	1 mbar	0.1 psi	0.1 kPa
Accuracy / deviations			
Accuracy / deviations (in % of the span) Turn down 1:1			
Characteristics deviation *)	< ± 0.6		
Linearity	< ± 0.5		
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	< ± 0.1		
Greatest TEMPCO of the span	< ± 0.2		
Reaction times			
Power-on delay time [s]	0.2		
Min. response time switching output [ms]	3		
Damping for the switching output (dAP) [s]	0...4		
Damping for the analog output (dAA) [s]	0 - 0.1 - 0.5 - 2		
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		
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 61000-4-6 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)		
Mechanical data			
Process connection	G 1 A		
Materials (wetted parts)	stainless steel 316L / 1.4404; ceramics (99.9 % Al ₂ O ₃); PTFE		

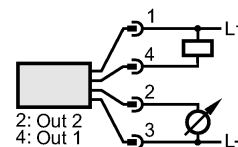
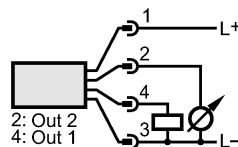
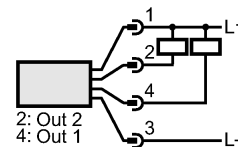
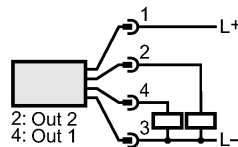
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Housing materials	stainless steel 316L / 1.4404; PBT (Pocan); PC (Makrolon); PEI; EPDM/X (Santoprene); FPM (Viton)
Switching cycles min.	100 million
Weight [kg]	0.511
Displays / operating elements	
Display	Switching status 2 x LED red Function display 7-segment LED display Measured values 7-segment LED 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

- *) 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
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