

New generation available: PI2897 or PI2797

When selecting an alternative article and accessories please note that technical data may differ!

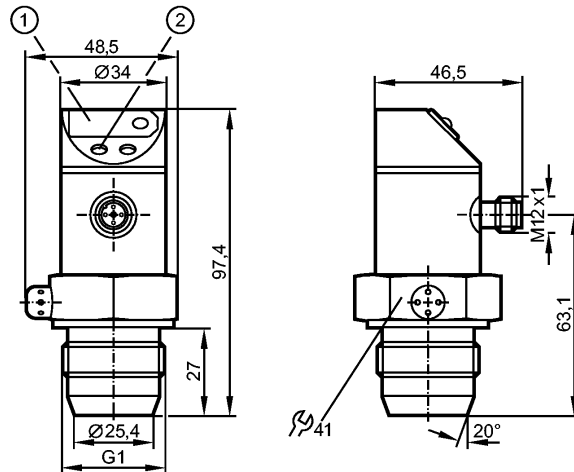
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PF2657

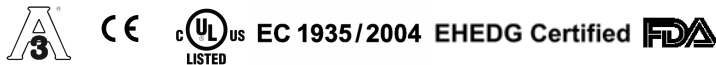


PF-001BREA01-MFRKG/US/ /P

Pressure sensors



- 1: 7-segment LED display
- 2: 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 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...80		
Electrical data	DC PNP/NPN		
Electrical design	20...30 DC		
Operating voltage [V]	< 60		
Current consumption [mA]	> 100 (500 V DC)		
Insulation resistance [MΩ]	III		
Protection class	yes		
Reverse polarity protection	2 outputs OUT1 = switching output OUT2 = switching output or analog output		
Outputs			
Output			

PF2657 - 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
Factory setting	SP1 = 250 mbar; rP1 = 230 mbar ASP = 0 mbar; AEP = 999 mbar		
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)		
MTTF [Years]	170		
Mechanical data			

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Process connection	Sealing cone G 1 male
Materials (wetted parts)	ceramics (99.9 % Al ₂ O ₃); PTFE; stainless steel 316L / 1.4435; surface characteristics: Ra < 0.4 / Rz 4
Housing materials	stainless steel 316L / 1.4404; PBT (Pocan); PC (Makrolon); PEI; EPDM/X (Santoprene); FPM (Viton)
Switching cycles min.	100 million
Weight [kg]	0.385
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

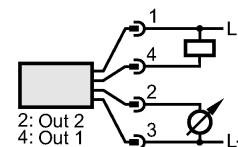
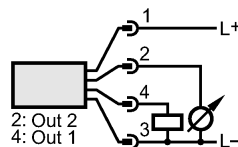
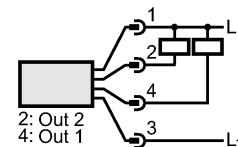
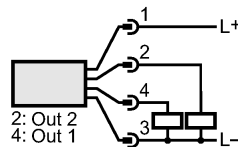
Fno = window function / normally open

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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