

New generation available: PI2894 or PI2794

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

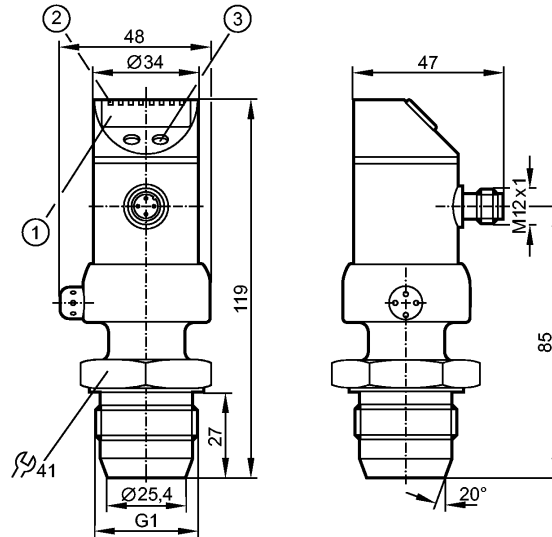
**efectorsoo**

PI2694



PI-010-REA01-MFRKG/US/ /P

Pressure sensors



- 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: -1.00...10.00 bar / -14.5...145.0 psi / -0.100...1.000 MPa

Application

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

Pressure rating	50 bar	725 psi	5 MPa
Bursting pressure min.	150 bar	2175 psi	15 MPa
Medium temperature [°C]	-25...125 (145 max. 1h)		
Electrical data	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			

**PI2694 - 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	-1.00...10.00 bar	-14.5...145.0 psi	-0.100...1.000 MPa
Setting range			
Set point, SP	-0.98...10.00 bar	-14.2...145.0 psi	-0.098...1.000 MPa
Reset point, rP	-1.00...9.98 bar	-14.5...144.7 psi	-0.100...0.998 MPa
Analog start point, ASP	-1.00...7.25 bar	-14.5...105.1 psi	-0.100...0.725 MPa
Analog end point, AEP	1.75...10.00 bar	25.4...145.0 psi	0.175...1.000 MPa
in steps of	0.01 bar	0.1 psi	0.001 MPa
Factory setting	SP1 = 2.50 bar; rP1 = 2.30 bar ASP = 0.00 bar; AEP = 10.00 bar		
Accuracy / deviations			
Accuracy / deviations (in % of the span) Turn down 1:1			
Switch point accuracy	< ± 0.2		
Characteristics deviation *)	< ± 0.2		
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	< ± 0.05		
Greatest TEMPCO of the span	< ± 0.15		
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 (99.9 % Al <sub>2</sub> O <sub>3</sub> ); 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]	0.45	
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

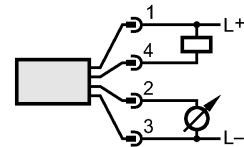
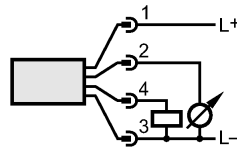
closed

-----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

ifm efector, inc. • 1100 Atwater Drive • Malvern • PA 19355 — We reserve the right to make technical alterations without prior notice. — US — PI2694 — 28.05.2014

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