

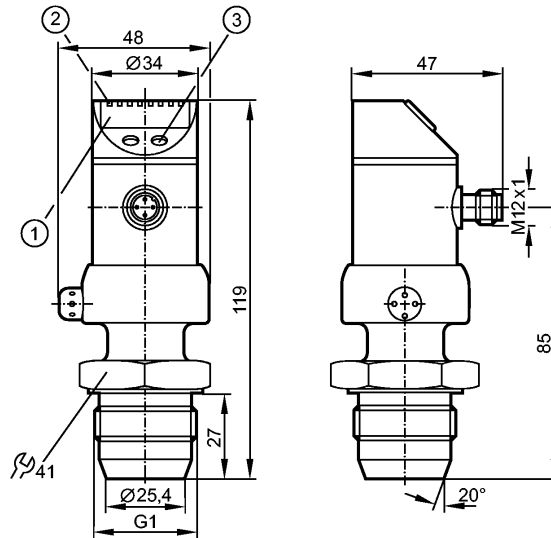


PI2692

PI-100-REA01-MFRKG/US/ /P



Pressure sensors



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



EHEDG Certified



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



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Pressure sensors

Outputs	
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



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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
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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
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
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Electrical connection

Connection	M12 connector; gold-plated contacts
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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

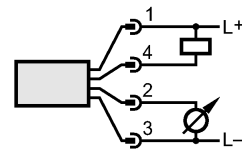
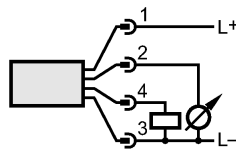
closed

-----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
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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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