

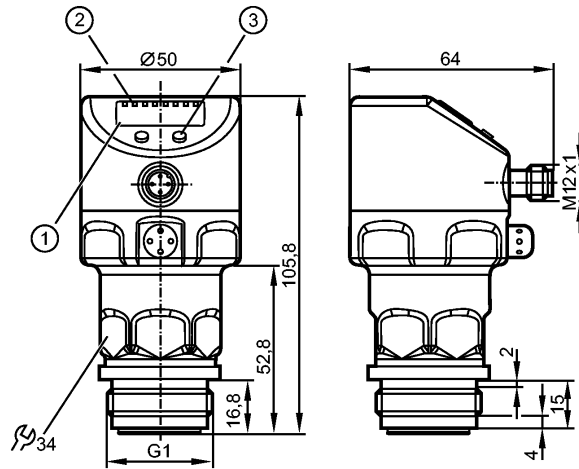


PI2795

PI-004-REA01-MFRKG/US/ /P



Pressure sensors



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

ACS
 CE
 UL LISTED
 EC 1935/2004 EHEDG Certified

FDA Reg31
 IO-Link

Product characteristics

Combined pressure sensor
Quick disconnect
Function programmable
no dead space
Process connection: G 1 A / Aseptoflex Vario
2-wire connection technology: analogue output
3-wire connection technology: 2 outputs OUT1 = switching output OUT2 = switching output or analogue output
4-digit alphanumeric display
Measuring range: -1.000...4.000 bar / -14.50...58.00 psi / -100.0...400.0 kPa

Application

Application	Type of pressure: relative pressure Hygienic systems, viscous media and liquids with suspended particles Liquids and gases		
Pressure rating	30 bar	435 psi	3000 kPa
Bursting pressure min.	100 bar	1450 psi	10000 kPa
Medium temperature [°C]	-25...125 (145 max. 1h)		

Electrical data

Electrical design	2 wires DC / 3 wires DC PNP/NPN		
Operating voltage [V]	20...32 DC (2L) / 18...32 DC (3L)		
Current consumption [mA]	3.6...21 (2L) / < 45 (3L)		
Insulation resistance [MΩ]	> 100 (500 V DC)		
Protection class	III		
Reverse polarity protection	yes		

Outputs



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Output	2-wire connection technology: analogue output 3-wire connection technology: 2 outputs OUT1 = switching output OUT2 = switching output or analogue output
Output function	1 x normally open / normally closed programmable + 1 x normally open / normally closed programmable or 1 x analog (4...20 / 20...4 mA, scalable)
Current rating [mA]	250; (3L)
Voltage drop [V]	2; (3L)
Short-circuit protection	yes (non-latching)
Overload protection	yes
Switching frequency [Hz]	--- (2L) / 125 (3L)
Analog output	I: 4...20 mA (Ineg: 20...4 mA)
Max. load [Ω]	300 (2L) / max. (U _b - 10 V) x 50 (3L)

Measuring / setting range			
Display unit	bar, psi, kPa, % der Spanne		
Measuring range	-1.000...4.000 bar	-14.50...58.00 psi	-100.0...400.0 kPa
Setting range			
Set point, SP	-0.990...4.000 bar	-14.35...58.00 psi	-99.0...400.0 kPa
Reset point, rP	-1.000...3.990 bar	-14.50...57.85 psi	-100.0...399.0 kPa
Analog start point, ASP	-1.000...3.000 bar	-14.50...43.50 psi	-100.0...300.0 kPa
Analog end point, AEP	0.000...4.000 bar	0.00...58.00 psi	0.0...400.0 kPa
in steps of	0.005 bar	0.05 psi	0.5 kPa
Factory setting	SP1 = 1.000 bar; rP1 = 0.920 bar SP2 = 3.000 bar; rP2 = 2.920 bar ASP = 0.000 bar; AEP = 4.000 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]	1 (2L) / 0.5 (3L)
Min. response time switching output [ms]	--- (2L) / 3 (3L)
Damping for the switching output (dAP) [s]	0.00...30.00
Damping for the analog output (dAA) [s]	0.01...99.99
Step response time analogue output [ms]	45 (2L) / 7 (3L)



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Integrated watchdog	yes
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Interfaces

IO-Link Device	
Transfer type	COM2 (38.4 kBaud)
IO-Link revision	1.0
IO-Link Device ID	158 d / 00 00 9E h
Profiles	no profile
SIO mode	yes
Required master port class	A
Process data analogue	1
Process data binary	2
Min. process cycle time [ms]	2.3

Environment

Ambient temperature [°C]	-25...80
Storage temperature [°C]	-40...100
Protection	IP 67 / IP 68 / 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]	160

Mechanical data

Process connection	G 1 A / Aseptoflex Vario
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; FPM (Viton); PTFE; PBT (Pocan); PEI; PFA
Switching cycles min.	100 million
Weight [kg]	0.314

Displays / operating elements

Display	Display unit 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

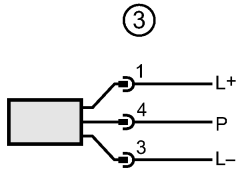
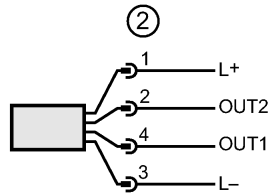
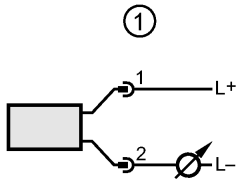


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- 1 connection for 2-wire operation
- 2 connection for 3-wire operation
- 3 connection for IO-Link parameter setting (P = communication via IO-Link)

Remarks

Remarks

(2L) = value for 2-wire operation
 (3L) = value for 3-wire operation
 *) linearity, incl. hysteresis and repeatability;
 (limit value setting to DIN 16086)
 **) with temperature fluctuations < 10 K
 ***) in % of the span per year

Pack quantity

[piece]

1