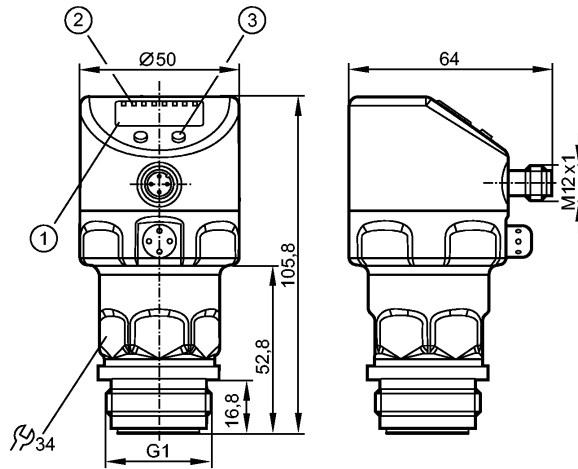


**PI2795**

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

Pressure sensors



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



Made in Germany

**Product characteristics**

Combined pressure sensor
Connector
Process connection: G 1 A / Aseptoflex Vario
Display units:
bar, psi, kPa, % of the span
Function programmable
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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**Pressure sensors**

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 analogue (4...20 / 20...4 mA, scalable)
Current rating [mA]	--- (2L) / 250 (3L)
Voltage drop [V]	--- (2L) / < 2 (3L)
Short-circuit protection	pulsed
Overload protection	yes
Switching frequency [Hz]	--- (2L) / 125 (3L)
Analogue output	I: 4...20 mA (Ineg: 20...4 mA)
Max. load [Ω]	300 (2L) / max. (U <sub>b</sub> - 10 V) x 50 (3L)

**Measuring / setting range**

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
Analogue start point, ASP	-1.000...3.000 bar	-14.50...43.50 psi	-100.0...300.0 kPa
Analogue 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 analogue output (dAA) [s]	0.01...99.99
Step response time analogue output [ms]	45 (2L) / 7 (3L)
Integrated watchdog	yes

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**Pressure sensors**
**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 type	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 <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; 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**

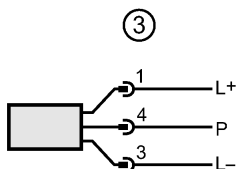
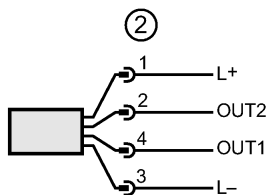
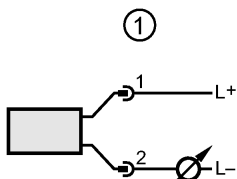
Connection	M12 connector; Gold-plated contacts
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**Wiring**

**PI2795**

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Pressure sensors



- 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