PI2096

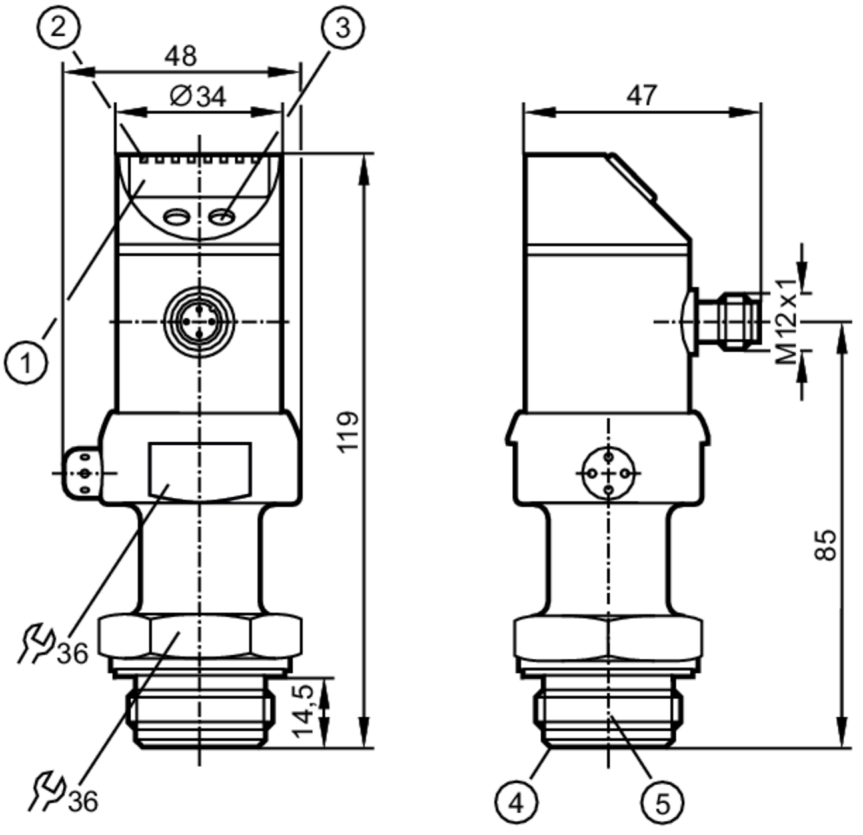
Flush pressure sensor with display

PI-2,5-RES30-MFRKG/US/ /P

phase-out article
Discontinuation date: 03/31/2024

Alternative articles: PI1005 or PI1706
When selecting an alternative article and accessories please note that technical data may differ!

Please do not use for new projects.
no more adapters available as accessories



1 alphanumeric display 4-digit
2 status LEDs
3 programming button
4 Aseptoflex sealing edge
5 Aseptoflex thread

EC 1935/2004 EHEDG Tested FCM

Product characteristics		
Number of inputs and outputs	Number of digital outputs: 1; Number of analogue outputs: 1	
Measuring range	-0.124...2.5 bar	-124...2500 mbar
Process connection	threaded connection Aseptoflex external thread Aseptoflex	

Application	
Special feature	Gold-plated contacts
Application	flush mountable for the food and beverage industry
Installation	freely rotatable housing 350°
Media	viscous media and liquids with suspended particles; liquids and gases

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Medium temperature	[°C]	-25...125; (145 max. 1h)	
Min. bursting pressure	[bar]	50	
Pressure rating	[bar]	20	
Type of pressure		relative pressure	
No dead space		yes	
Electrical data			
Operating voltage	[V]	18...32 DC	
Current consumption	[mA]	< 50	
Min. insulation resistance	[MΩ]	100; (500 V DC)	
Protection class		III	
Reverse polarity protection		yes	
Power-on delay time	[s]	0.5	
Integrated watchdog		yes	
Inputs / outputs			
Number of inputs and outputs		Number of digital outputs: 1; Number of analogue outputs: 1	
Outputs			
Total number of outputs		2	
Output signal		switching signal; analogue signal; (configurable)	
Electrical design		PNP/NPN	
Number of digital outputs		1	
Output function		normally open / normally closed; (parameterisable)	
Max. voltage drop switching output DC	[V]	2	
Permanent current rating of switching output DC	[mA]	250	
Switching frequency DC	[Hz]	6	
Number of analogue outputs		1	
Analogue current output	[mA]	4...20, invertible; (scalable 1:4)	
Max. load	[Ω]	(Ub - 10 V) / 20 mA	
Analogue voltage output	[V]	0...10, invertible; (scalable 1:4)	
Min. load resistance	[Ω]	2000	
Short-circuit protection		yes	
Type of short-circuit protection		pulsed	
Overload protection		yes	
Measuring/setting range			
Measuring range		-0.124...2.5 bar	-124...2500 mbar
Set point SP	[bar]	-0.12...2.5	
Reset point rP	[bar]	-0.124...2.496	
Analogue start point	[bar]	-0.124...1.88	
Analogue end point	[bar]	0.5...2.5	
In steps of	[bar]	0.002	
Factory setting		SP1 = 0.624 bar	rP1 = 0.574 bar
		ASP = 0.000 bar	AEP = 2.500 bar

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Accuracy / deviations		
Switch point accuracy [% of the span]		< ± 0,2; (Turn down 1:1)
Repeatability [% of the span]		< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)
Characteristics deviation [% of the span]		< ± 0,2; (Turn down 1:1 , linearity, incl. hysteresis and repeatability , limit value setting to DIN EN IEC 62828-1)
Linearity deviation [% of the span]		< ± 0,15; (Turn down 1:1)
Hysteresis deviation [% of the span]		< ± 0,15; (Turn down 1:1)
Long-term stability [% of the span]		< ± 0,1; (Turn down 1:1; per year)
Temperature coefficient zero point [% of the span / 10 K]		< ± 0,05; (0...70 °C)
Temperature coefficient span [% of the span / 10 K]		< ± 0,15; (0...70 °C)
Response times		
Response time [ms]		< 100
Damping process value dAP [s]		0.1...100
Damping for the analogue output dAA [s]		0.1...100
Step response time analogue output [ms]		25
Software / programming		
Parameter setting options		hysteresis / window; normally open / normally closed; switching logic; current/voltage output; Damping; adaptation of displayed values; display can be rotated and switched off; Display unit; zero point; span
Operating conditions		
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]		173
Mechanical data		
Weight [g]		412.5
Materials		stainless steel (1.4404 / 316L); PC; PBT; PEI; FKM; PTFE
Materials (wetted parts)		ceramics (99.9 % Al2O3); stainless steel (1.4435 / 316L); surface characteristics: Ra < 0,4 / Rz 4; PTFE
Min. pressure cycles		100 million

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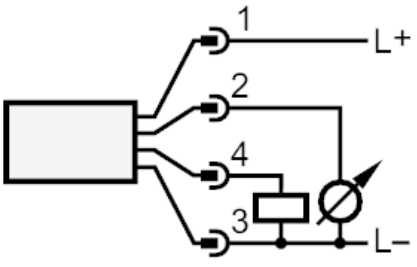
Process connection	threaded connection Aseptoflex external thread Aseptoflex	
Displays / operating elements		
Display	Display unit	6 x, green
	switching status	LED, yellow
	function display	alphanumeric display, 4-digit
	measured values	alphanumeric display, 4-digit
Display unit	bar; kPa; psi; inH2O; mWS; % of the span	
Remarks		
Remarks	The 3-A qualification is only valid if adapters with 3-A qualification are used for installation.	
Notes	Please do not use for new projects.; no more adapters available as accessories	
Pack quantity	1 pcs.	

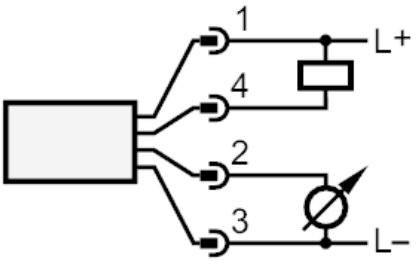
Electrical connection

Connector: 1 x M12; coding: A; Contacts: gold-plated



Connection





OUT1	switching output
OUT2	analogue output