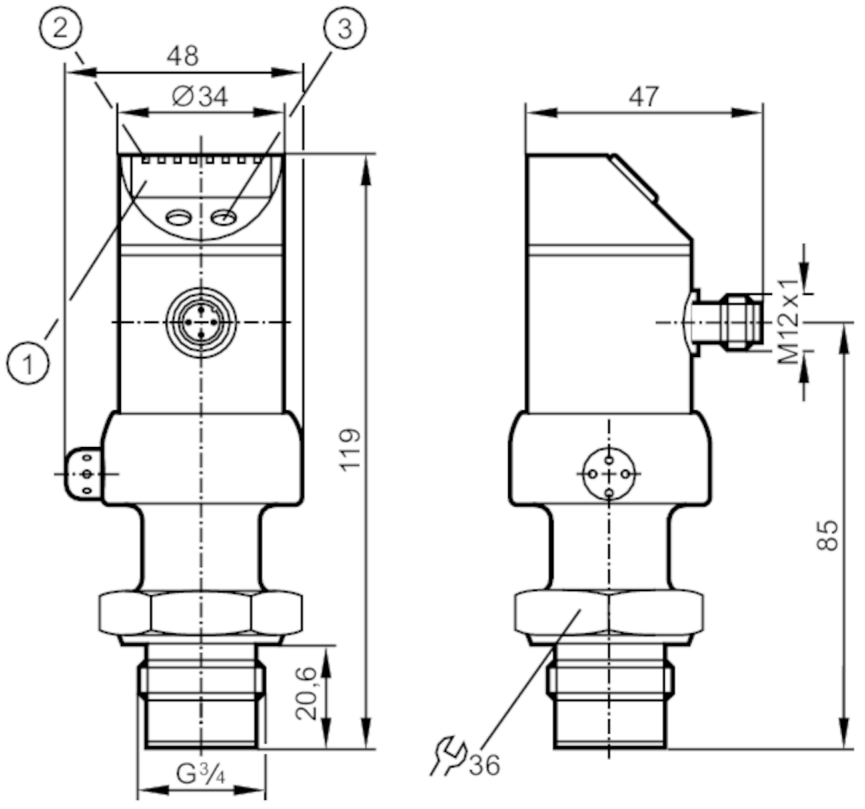
PI2994

Flush pressure sensor with display

PI-010-REB34-MFRKG/US/ /P

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

Alternative articles: PM1504 + E30482 or PI1704
When selecting an alternative article and accessories please note that technical data may differ!



1 alphanumeric display 4-digit
2 LEDs Display unit / switching status
3 programming button

Product characteristics				
Number of inputs and outputs		Number of digital outputs: 1; Number of analogue outputs: 1		
Measuring range		-1...10 bar	-14.5...145 psi	-0.1...1 MPa
Process connection		threaded connection G 3/4 external thread		
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		
Medium temperature	[°C]	-25...125; (145 max. 1h)		
Min. bursting pressure		150 bar	2175 psi	15 MPa
Pressure rating		50 bar	725 psi	5 Mpa
Type of pressure		relative pressure; vacuum		
No dead space		yes		

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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		-1...10 bar	-14.5...145 psi	-0.1...1 MPa
Set point SP		-0.98...10 bar	-14.2...145 psi	-0.098...1 MPa
Reset point rP		-1...9.98 bar	-14.5...144.7 psi	-0.1...0.998 MPa
Analogue start point		-1...7.25 bar	-14.5...105.1 psi	-0.1...0.725 MPa
Analogue end point		1.75...10 bar	25.4...145 psi	0.175...1 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				
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		< ± 0,15; (Turn down 1:1)		

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[% of the span]		
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]		163
Mechanical data		
Weight [g]		381.5
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
Process connection		threaded connection G 3/4 external thread
Displays / operating elements		
Display	Display unit	4 x LED, green
	switching status	LED, yellow
	function display	alphanumeric display, 4-digit
	measured values	alphanumeric display, 4-digit
Display unit		bar; psi; MPa; % of the span

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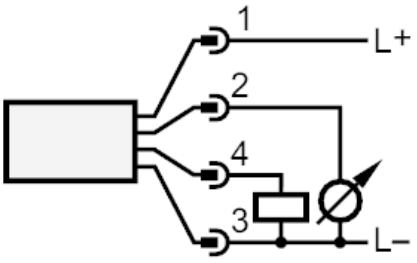
Remarks	
Notes	phase-out article
Pack quantity	1 pcs.

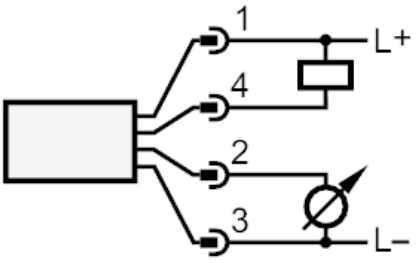
Electrical connection

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



Connection





OUT1	switching output
OUT2	analogue output