

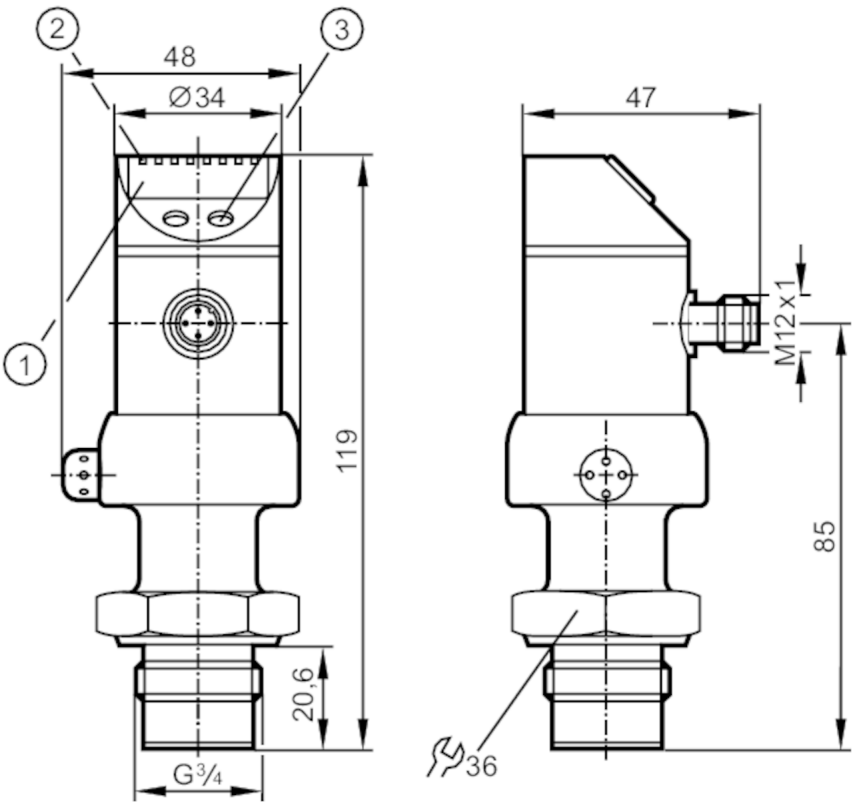


Flush pressure sensor with display

PI-001-REB34-MFRKG/US/ IP

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

Alternative articles: PM1507 + E30482 or PI1707
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	-0.05...1 bar	-50...1000 mbar
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 [mbar]	30000	
Min. bursting pressure [MPa]	3	
Pressure rating [mbar]	10000	
Pressure rating [MPa]	1	



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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		
Measuring principle	hydrostatic		
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]	(U _b - 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	-0.05...1 bar	-50...1000 mbar	
Set point SP [mbar]	-48...1000		
Reset point rP [mbar]	-50...998		
Analogue start point [mbar]	-50...750		
Analogue end point [mbar]	200...1000		
In steps of [mbar]	1		
Factory setting	SP1 = 250 mbar		rP1 = 230 mbar
	ASP = 0 mbar		AEP = 1000 mbar
Accuracy / deviations			
Switch point accuracy [% of the span]	< ± 0,2; (Turn down 1:1)		



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Repeatability [% of the span]	$< \pm 0,1$; (with temperature fluctuations $< 10\text{ K}$; Turn down 1:1)
Characteristics deviation [% of the span]	$< \pm 0,2$; (Turn down 1:1, linearity, incl. hysteresis and repeatability, limit value setting to DIN EN IEC 62828-1)
Linearity deviation [% of the span]	$< \pm 0,15$; (Turn down 1:1)
Hysteresis deviation [% of the span]	$< \pm 0,15$; (Turn down 1:1)
Long-term stability [% of the span]	$< \pm 0,1$; (Turn down 1:1; per year)
Temperature coefficient zero point [% of the span / 10 K]	$< \pm 0,05$; ($0...70\text{ °C}$)
Temperature coefficient span [% of the span / 10 K]	$< \pm 0,15$; ($0...70\text{ °C}$)

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
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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 ($10...2000\text{ Hz}$)
MTTF [years]		163

Mechanical data

Weight [g]	382.5
Housing	cylindrical
Dimensions [mm]	$\varnothing 34 / L = 119$
Materials	stainless steel (316L/1.4404); PC; PBT; PEI; FKM; PTFE
Materials (wetted parts)	ceramics (99.9 % Al_2O_3); stainless steel (316L/1.4435); surface characteristics: $R_a < 0,4 / R_z 4$; PTFE
Min. pressure cycles	100 million
Process connection	threaded connection G 3/4 external thread

PI2997



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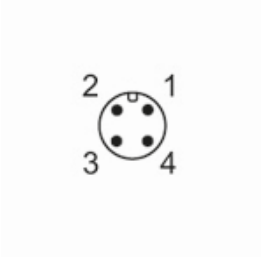
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Displays / operating elements		
Display	Display unit	6 x, green
	switching status	LED, yellow
	function display	alphanumeric display, 4-digit
	measured values	alphanumeric display, 4-digit
Display unit	mbar; kPa; psi; inH2O; mWS; % of the span	

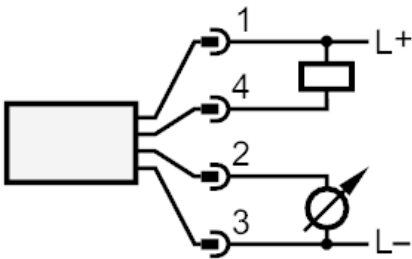
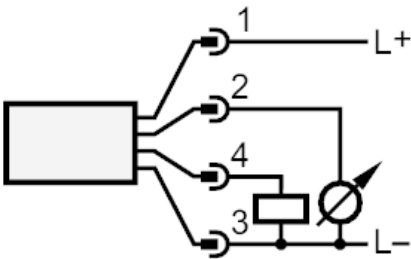
Remarks	
Notes	phase-out article
Pack quantity	1 pcs.

Electrical connection

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



Connection



OUT1 switching output
OUT2 analogue output