

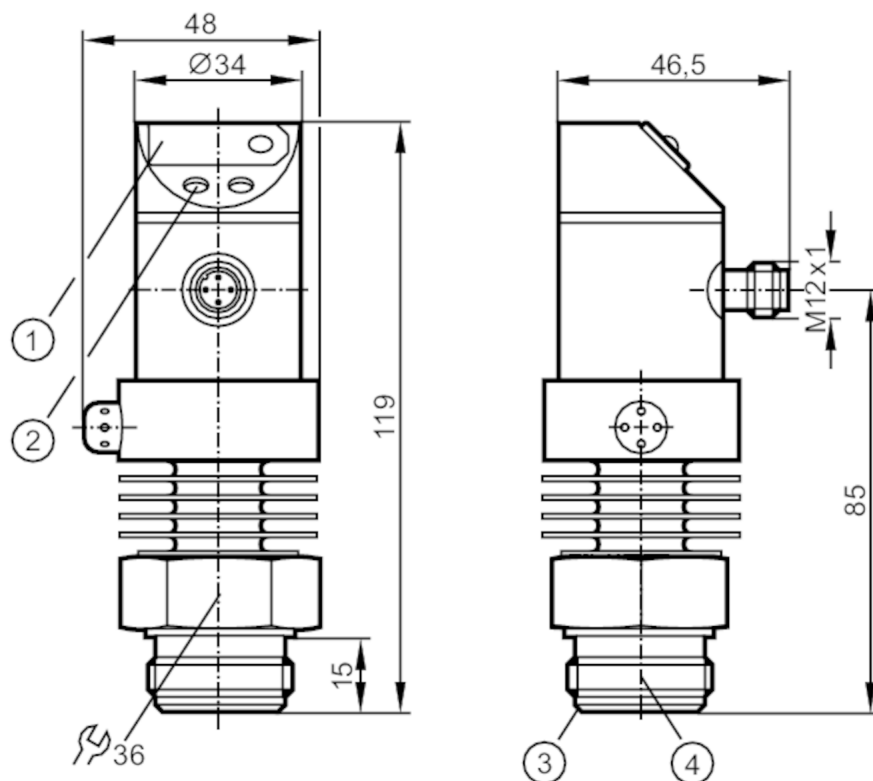


Flush pressure sensor with display

PI-001BRES30-MFRKG/US/ /P

Article no longer available - archive entry

Alternative article: PI2097 or PI1097 When selecting an alternative article and accessories please note that technical data may differ! – When selecting an alternative article and accessories please note that technical data may differ!



- 1 7-segment LED display
- 2 programming button
- 3 Aseptoflex sealing edge
- 4 Aseptoflex thread



EHEDG Certified



Product characteristics

Output signal	switching signal; analogue signal; (configurable)		
Measuring range	-50...1000 mbar	-0.7...14.5 psi	-5...100 kPa
Process connection	threaded connection Aseptoflex external thread Aseptoflex		

Application

Special feature	Gold-plated contacts		
Application	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)		
Pressure rating	10000 mbar	145 psi	1000 kPa
Min. bursting pressure	30000 mbar	450 psi	3000 kPa
Type of pressure	relative pressure		
No dead space	yes		



Flush pressure sensor with display

PI-001BRES30-MFRKG/US/ /P

Electrical data			
Operating voltage	[V]	20...30 DC	
Current consumption	[mA]	< 60	
Min. insulation resistance	[MΩ]	100; (500 V DC)	
Protection class		III	
Reverse polarity protection		yes	
Power-on delay time	[s]	0.2	
Integrated watchdog		yes	
Inputs / outputs			
Number of inputs and outputs		Number of digital outputs: 2; 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		2	
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]	< 170	
Number of analogue outputs		1	
Analogue current output	[mA]	4...20; (scalable 1:4)	
Max. load	[Ω]	(Ub - 10 V) / 20 mA	
Analogue voltage output	[V]	0...10; (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		-50...1000 mbar	-0.7...14.5 psi -5...100 kPa
Set point SP		-45...999 mbar	-0.7...14.5 psi -4.5...99.9 kPa
Reset point rP		-50...994 mbar	-0.7...14.4 psi -5...99.4 kPa
Analogue start point		-50...749 mbar	-0.7...10.9 psi -5...74.9 kPa
Analogue end point		200...999 mbar	2.9...14.5 psi 20...99.9 kPa
In steps of		1 mbar	0.1 psi 0.1 kPa
Accuracy / deviations			
Repeatability	[% of the span]	< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)	
Characteristics deviation	[% of the span]	< ± 0,6; (Turn down 1:1 linearity, incl. hysteresis and repeatability limit value setting to DIN 16086)	
Linearity deviation	[% of the span]	< ± 0,5; (Turn down 1:1)	
Hysteresis deviation	[% of the span]	< ± 0,1; (Turn down 1:1)	
Long-term stability		< ± 0,1; (Turn down 1:1; per year)	



Flush pressure sensor with display

PI-001BRES30-MFRKG/US/ /P

	[% of the span]	
Temperature coefficient zero point		$< \pm 0,1; (-20...80\text{ }^{\circ}\text{C})$
	[% of the span / 10 K]	
Temperature coefficient span		$< \pm 0,2; (-20...80\text{ }^{\circ}\text{C})$
	[% of the span / 10 K]	

Response times		
Response time	[ms]	< 3
Damping for the switching output dAP	[s]	0...4
Damping for the analogue output dAA in steps	[s]	0 - 0,1 - 0,5 - 2
Max. response time analogue output	[ms]	3

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

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 61000-4-6 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)

Mechanical data		
Materials		stainless steel (1.4404 / 316L); PBT; PC; PEI; EPDM/X; FKM
Materials (wetted parts)		stainless steel (1.4404 / 316L); ceramics (99.9 % Al ₂ O ₃); PTFE
Min. pressure cycles		100 million
Process connection		threaded connection Aseptoflex external thread Aseptoflex

Displays / operating elements		
Display	switching status	2 x LED, red
	function display	7-segment LED display
	measured values	7-segment LED display
Display unit		mbar; psi; kPa

Remarks		
Remarks		The 3-A qualification is only valid if adapters with 3-A qualification are used for installation.
Pack quantity		1 pcs.

Electrical connection		
Connector: 1 x M12; Contacts: gold-plated		

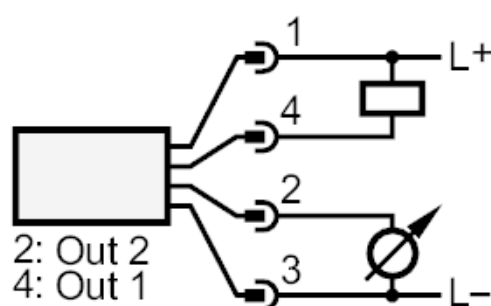
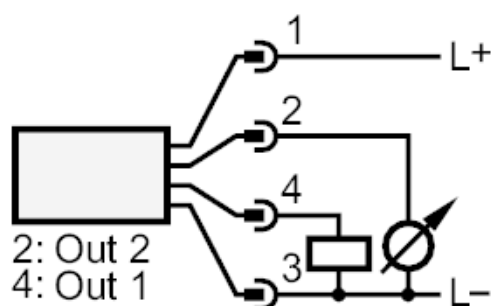
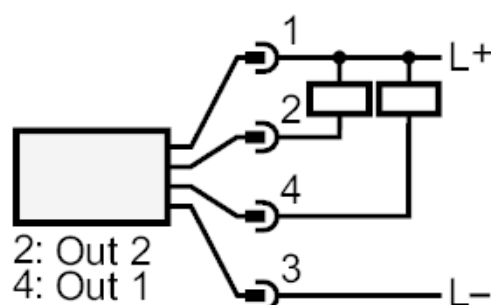
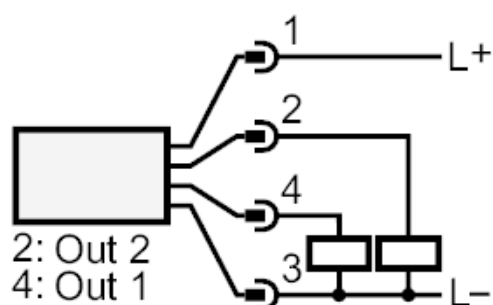


Flush pressure sensor with display

PI-001BRES30-MFRKG/US/ /P



Connection



OUT1	switching output
OUT2	switching output
	analogue output

Article no longer available - archive entry

Alternative article: PI2097 or PI1097 When selecting an alternative article and accessories please note that technical data may differ! – When selecting an alternative article and accessories please note that technical data may differ!