

PI2657

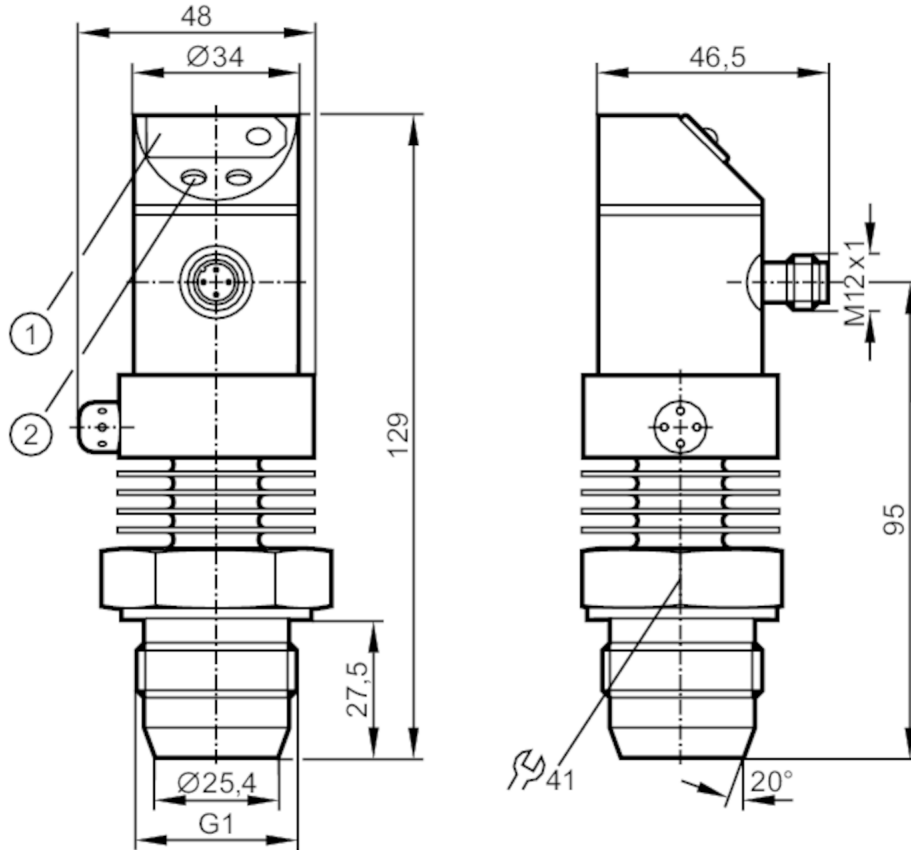


Flush pressure sensor with display

PI-001BREA01-MFRKG/US/ IP

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replaced by: PI1697



- 1 7-segment LED display
- 2 Programming button



Application

Application	hygienic systems		
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		



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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 analog outputs: 1		
Outputs				
Total number of outputs		2		
Output signal		switching signal; analog signal; (configurable)		
Electrical design		PNP/NPN		
Number of digital outputs		2		
Output function		normally open / closed; (configurable)		
Max. voltage drop switching output DC	[V]	2		
Permanent current rating of switching output DC	[mA]	250		
Switching frequency DC	[Hz]	< 170		
Number of analog outputs		1		
Analog current output	[mA]	4...20; (scalable 1:4)		
Max. load	[Ω]	(U _b - 10 V) / 20 mA		
Analog voltage output	[V]	0...10; (scalable 1:4)		
Min. load resistance	[Ω]	2000		
Short-circuit protection		yes		
Type of short-circuit protection		yes (non-latching)		
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
Analog start point		-50...749 mbar	-0.7...10.9 psi	-5...74.9 kPa
Analog 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)		

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	[% of the span]	
Temperature coefficient zero point	[% of the span / 10 K]	$< \pm 0,1$; (0...80 °C)
Temperature coefficient span	[% of the span / 10 K]	$< \pm 0,2$; (0...80 °C)

Reaction times

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

Software / programming

Parameter setting options	hysteresis / window; normally open / 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

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

Material	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 G 1 external thread

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

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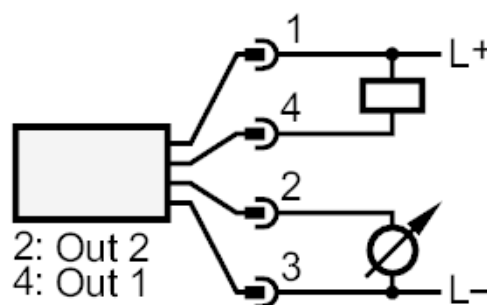
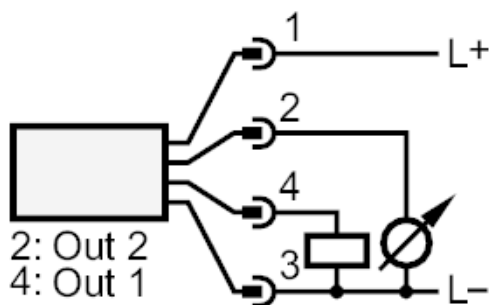
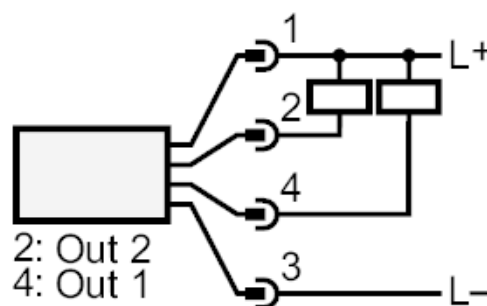
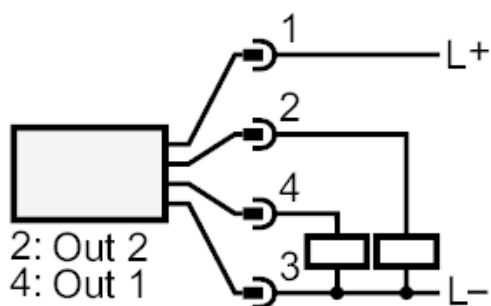


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Connection



OUT1	Switching output
OUT2	Switching output
	analog output

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