PI3009

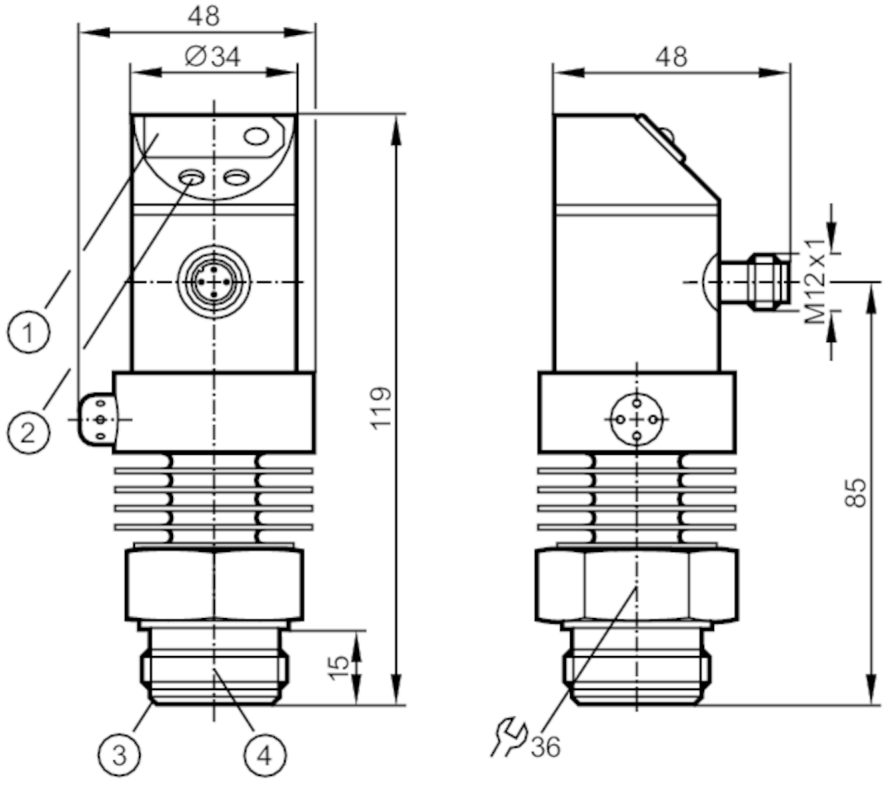
Flush pressure sensor with display

PI-1-1-RES30-KFPKG/US/ /P

Article no longer available - archive entry

Alternative articles: PI2099

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

CE

Product characteristics			
Number of inputs and outputs		Number of digital outputs: 1; Number of analogue outputs: 1	
Measuring range	[bar]	-1...1	
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	
Medium temperature	[°C]	-25...125; (145 max. 1h)	
Min. burst pressure		50 bar	5 MPa
Pressure rating		20 bar	2 MPa
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: 1; Number of analogue outputs: 1

Outputs		
Total number of outputs		2
Output signal		switching signal; analogue signal; (configurable)
Electrical design		PNP
Number of digital outputs		1
Max. voltage drop switching output DC	[V]	2
Permanent current rating of switching output DC	[mA]	250
Number of analogue outputs		1
Analogue current output	[mA]	4...20
Max. load	[Ω]	500
Short-circuit protection		yes
Type of short-circuit protection		pulsed
Overload protection		yes

Measuring/setting range		
Measuring range	[bar]	-1...1
Set point SP	[bar]	-0.96...1
Reset point rP	[bar]	-0.98...0.99
In steps of	[bar]	0.02

Accuracy / deviations	
Switch point accuracy [% of the final value]	< ± 1,5
Repeatability [% of the final value]	< ± 0,25; (with temperature fluctuations < 10 K)
Characteristics deviation [% of the final value]	< ± 1,0
Temperature drift per 10 K	< ± 0.3

Response times

Switching frequency for a given set response time of one output										
Response time (dAP)	[ms]	3	6	10	17	30	60	125	250	500
Switching frequency	[Hz]	170	80	50	30	16	8	4	2	1

Response time	[ms]	at rectangular pressure characteristic; switch point (SPx) = 70 %; reset point (rPx) = 30 %

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Delay time programmable dS, dr	[s]	0, 0,2,...10, 11,...50	
Max. response time analogue output	[ms]	3	
Software / programming			
Adjustment of the switch point		programming button	
Parameter setting options		hysteresis / window; normally open / normally closed; switch-on/switch-off delay; Damping	
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			
Housing		cylindrical	
Dimensions	[mm]	Ø 34 / L = 119	
Materials		stainless steel (316L/1.4404); PBT; PC; PA; EPDM/X; FKM	
Materials (wetted parts)		stainless steel (316L/1.4404); ceramics; PTFE	
Min. pressure cycles		100 million	
Process connection		threaded connection Aseptoflex external thread Aseptoflex	
Displays / operating elements			
Display		switching status	LED, red
		function display	7-segment LED display
		measured values	7-segment LED display
Remarks			
Pack quantity		1 pcs.	

Electrical connection

Connector: 1 x M12; coding: A; Contacts: 4, gold-plated



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Connection

