

PF003A



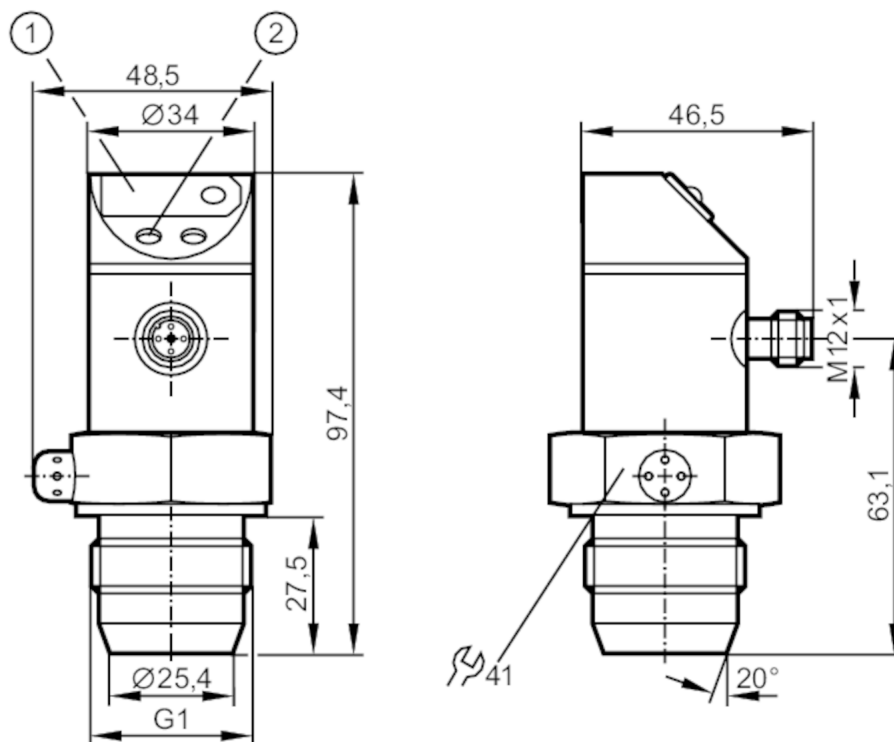
Flush pressure sensor

PF-025-REA01-MFRKG/US/3D /P

Article no longer available - archive entry

Alternative articles: PI003A

When selecting an alternative article and accessories please note that technical data may differ!



- 1 7-segment LED display
- 2 Programming button



EHEDG Certified



Product characteristics

Number of inputs and outputs	Number of digital outputs: 2; Number of analog outputs: 1		
Measuring range	-1...25 bar	-15...363 psi	-0.1...2.5 MPa
Process connection	threaded connection G 1 external thread		

Application

System	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]	-20...60		
Min. bursting pressure	350 bar	5070 psi	35 MPa
Pressure rating	100 bar	1450 psi	10 Mpa
Type of pressure	relative pressure		
No dead space	yes		

Electrical data

Operating voltage [V]	20...30 DC
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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
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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	-1...25 bar	-15...363 psi	-0.1...2.5 MPa
Set point SP	-0.8...25 bar	-12...363 psi	-0.08...2.5 MPa
Reset point rP	-0.9...24.9 bar	-13...362 psi	-0.09...2.49 MPa
Analog start point	-1...18.8 bar	-15...272 psi	-0.1...1.88 MPa
Analog end point	5.3...25 bar	76...363 psi	0.53...2.5 MPa
In steps of	0.1 bar	1 psi	0.01 MPa

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 EN IEC 62828-1)
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	[% of the span]	< ± 0,1; (Turn down 1:1; per year)

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Temperature coefficient zero point [% of the span / 10 K]	< ± 0,1; (0...60 °C)	
Temperature coefficient span [% of the span / 10 K]	< ± 0,2; (0...60 °C)	
Reaction times		
Response time [ms]	< 3	
Damping process value 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	
Operating conditions		
Ambient temperature [°C]	-20...60	
Storage temperature [°C]	-40...100	
Protection	IP 67	
Tests / approvals		
ATEX marking	 II 3D IP 67 T 80 °C X	
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 % Al2O3); PTFE	
Min. pressure cycles	100 million	
Process connection	threaded connection G 1 external thread	
Displays / operating elements		
Display	Switching status	LED, red
	Function display	7-segment LED display
	Measured values	7-segment LED display
Remarks		
Remarks	The 3-A qualification is only valid if adapters with 3-A qualification are used for installation.	
Pack quantity	1 pcs.	

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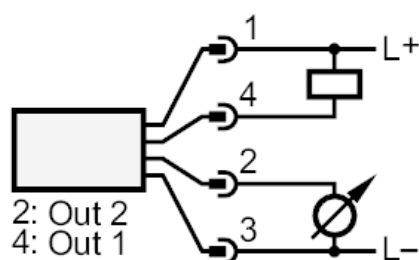
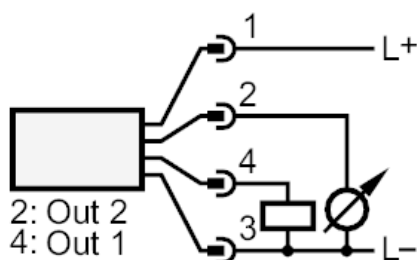
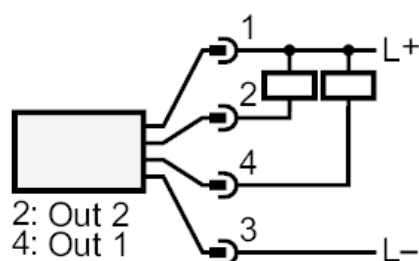
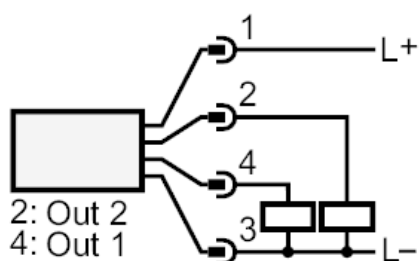
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Electrical connection

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



Connection



OUT1
OUT2

Switching output
Switching output
analog output