PF2054

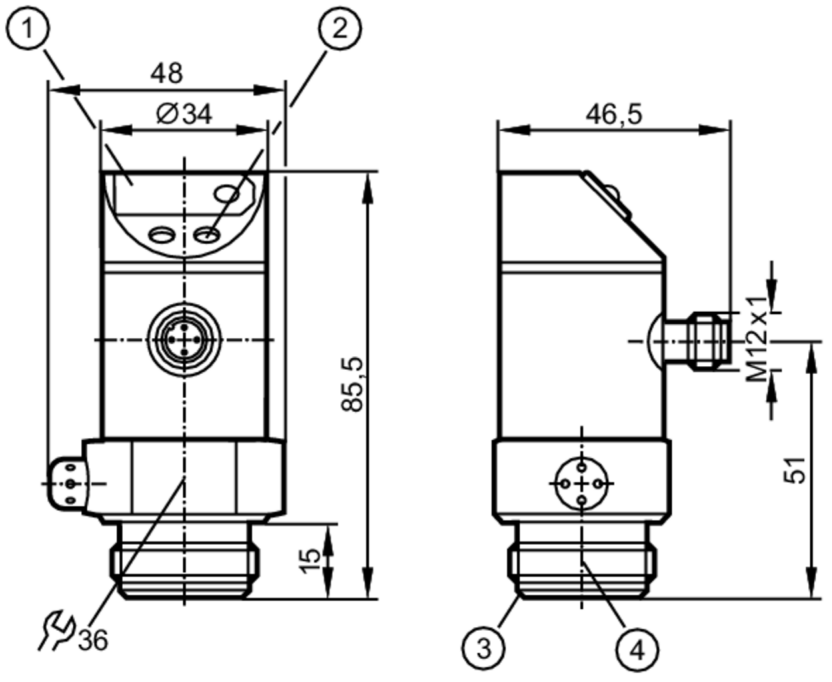
Flush pressure sensor

PF-010-RES30-MFRKG/US/ /P

phase-out article

Alternative articles: PI1004 or PI1704
When selecting an alternative article and accessories please note that technical data may differ!

Please do not use for new projects.
no more adapters available as accessories



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

EC 1935/2004 FCM CN FCM JP Hygienic Cleanable

Product characteristics					
Number of inputs and outputs		Number of digital outputs: 2; Number of analogue outputs: 1			
Measuring range		-0.5...10 bar	-7...145 psi	-50...1000 kPa	-0.05...1 MPa
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...80			
Min. burst pressure		150 bar	2175 psi	15000 kPa	15 MPa
Pressure rating		50 bar	725 psi	5000 kPa	5 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: 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	-0.5...10 bar	-7...145 psi	-50...1000 kPa	-0.05...1 MPa
Set point SP	-0.45...9.99 bar	-7...145 psi		-45...999 kPa
Reset point rP	-0.5...9.94 bar	-7...144 psi		-50...994 kPa
Analogue start point	-0.5...7.49 bar	-7...109 psi		-50...749 kPa
Analogue end point	2...9.99 bar	29...145 psi		200...999 kPa
In steps of	0.01 bar	1 psi		1 kPa
Factory setting		SP1 = 2.50 bar		rP1 = 2.30 bar
		ASP = 0.00 bar		AEP = 9.99 bar

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		< ± 0,1; (Turn down 1:1)

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[% of the span]		
Long-term stability [% of the span]		< ± 0,1; (Turn down 1:1; per year)
Temperature coefficient zero point [% of the span / 10 K]		< ± 0,1; (0...80 °C)
Temperature coefficient span [% of the span / 10 K]		< ± 0,2; (0...80 °C)
Response times		
Response time [ms]		< 3
Damping process value 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)
MTTF [years]		181
Mechanical data		
Weight [g]		279.65
Housing		cylindrical
Dimensions [mm]		Ø 34 / L = 85.5
Materials		stainless steel (316L/1.4404); PBT; PC; PEI; EPDM/X; FKM
Materials (wetted parts)		stainless steel (316L/1.4435) surface characteristics: Ra < 0,4 µm / Rz = 4 µm; ceramics (99.9 % Al2O3); 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		bar; psi; kPa

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Remarks

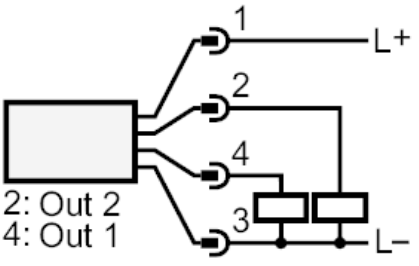
Remarks	The 3-A qualification is only valid if adapters with 3-A qualification are used for installation.
Notes	Please do not use for new projects.; no more adapters available as accessories
Pack quantity	1 pcs.

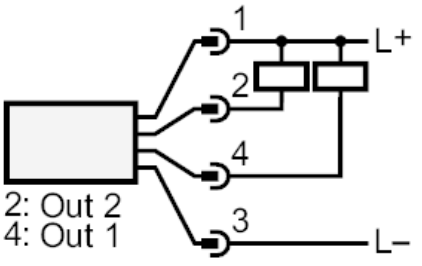
Electrical connection

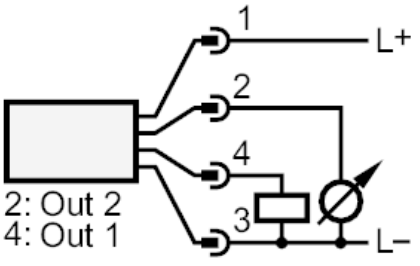
Connector: 1 x M12; coding: A; Contacts: 4, gold-plated

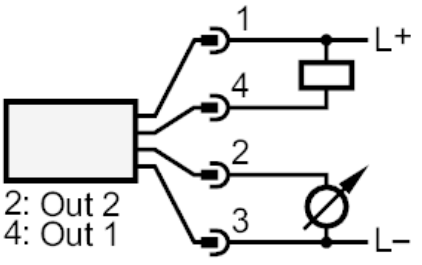


Connection









OUT1	switching output
OUT2	switching output analogue output