

# PF2953



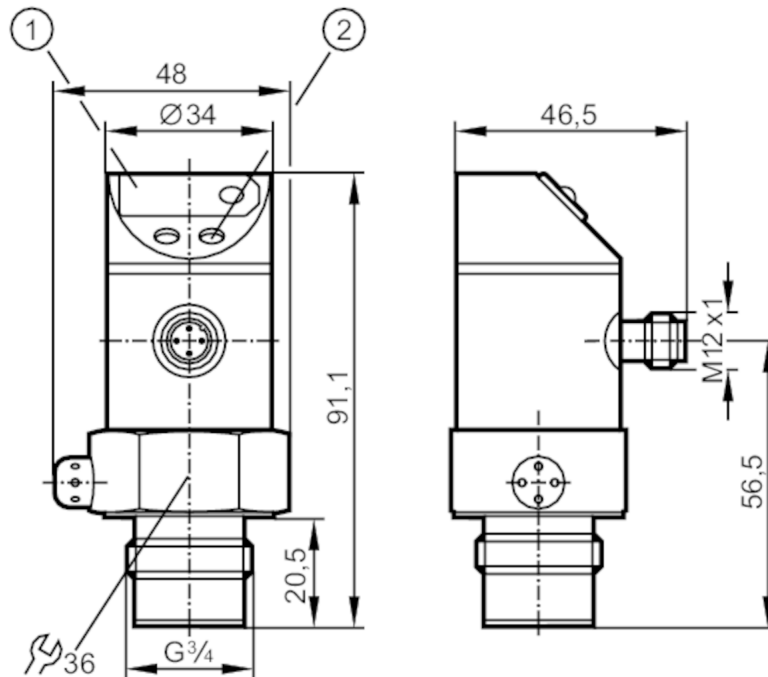
## Flush pressure sensor

PF-025-REB34-MFRKG/US/ IP

Article to be discontinued

Alternative articles: PM1503 + E30482

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



- 1 7-segment LED display
- 2 Programming button



### 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 3/4 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]	-25...80		
Min. bursting pressure	200 bar	2900 psi	20 MPa
Pressure rating	100 bar	1450 psi	10 Mpa
Type of pressure	relative pressure; vacuum		
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 <sub>b</sub> - 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
Factory setting		SP1 = 6.3 bar	rP1 = 5.8 bar
		ASP = 0.0 bar	AEP = 25.0 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)

### 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
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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)
MTTF	[years]	170

### Mechanical data

Weight	[g]	269.65
Material		stainless steel (1.4404 / 316L); PBT; PC; PEI; EPDM/X; FKM
Materials (wetted parts)		ceramics (99.9 % Al <sub>2</sub> O <sub>3</sub> ); stainless steel (1.4435 / 316L); surface characteristics: Ra < 0,4 / Rz 4; PTFE
Min. pressure cycles		100 million
Process connection		threaded connection G 3/4 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		bar; psi; MPa

### Remarks

Notes	Article to be discontinued
Pack quantity	1 pcs.

# PF2953



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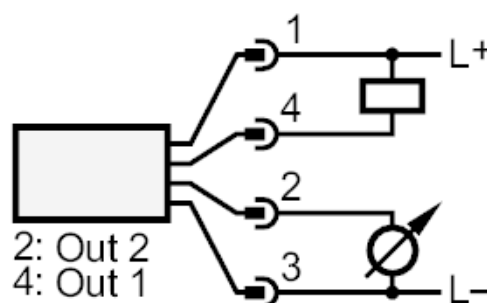
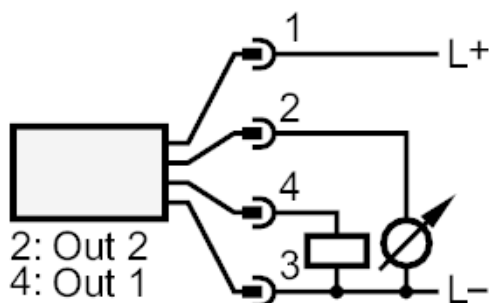
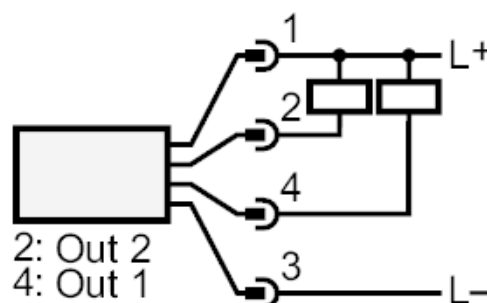
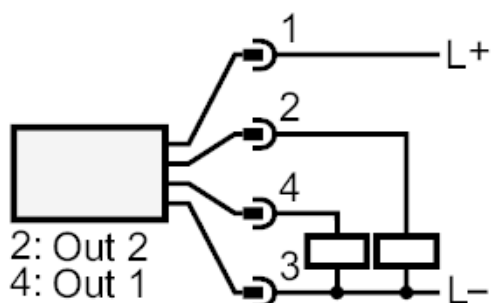
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### Electrical connection

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



### Connection



- OUT1            Switching output
- OUT2            Switching output
- analog output