

PI2953

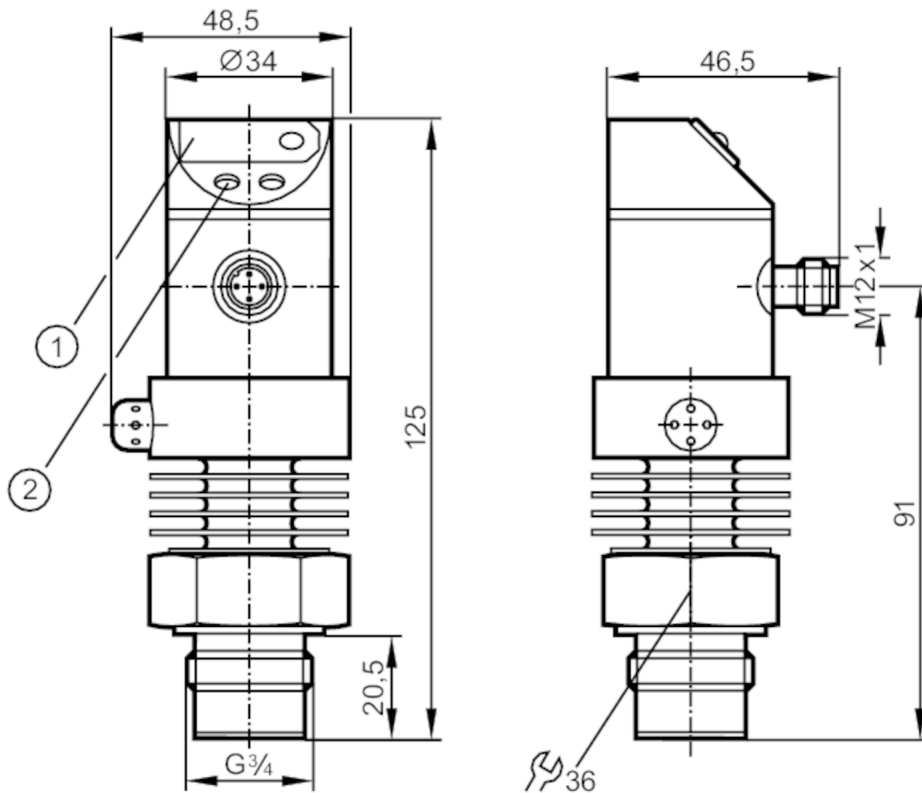


Flush pressure sensor with display

PI-025-REB34-MFRKG/US/ IP

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Alternative article: PI2993 or PI7993 When selecting an alternative article and accessories please note that technical data may differ! – When selecting an alternative article and accessories please note that technical data may differ!



- 1 7-segment LED display
- 2 programming button



Product characteristics

Output signal	switching signal; analogue signal; (configurable)		
Measuring range	-1...25 bar	-15...363 psi	-0.1...2.5 MPa
Process connection	threaded connection G 3/4 external thread		

Application

Special feature	Gold-plated contacts		
Application	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)		
Pressure rating	100 bar	1450 psi	10 MPa
Min. bursting pressure	200 bar	2900 psi	20 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] (U _b - 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	-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
Analogue start point	-1...18.8 bar	-15...272 psi	-0.1...1.88 MPa
Analogue 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 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]	$< \pm 0,1; (0...80\text{ °C})$
Temperature coefficient span	[% of the span / 10 K]	$< \pm 0,2; (0...80\text{ °C})$

Response times		
Response time	[ms]	< 3
Damping for the switching output 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)

Mechanical data	
Materials	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; FKM
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	
Pack quantity	1 pcs.

Electrical connection	
Connector: 1 x M12; Contacts: gold-plated	

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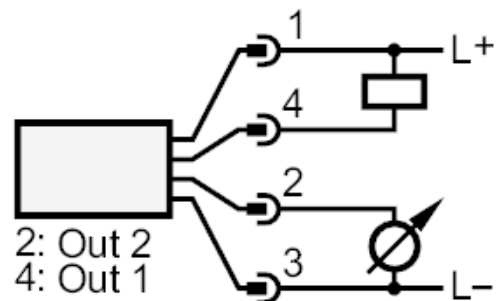
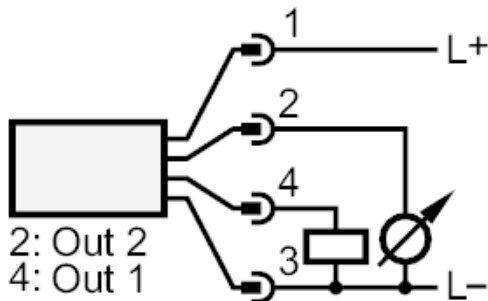
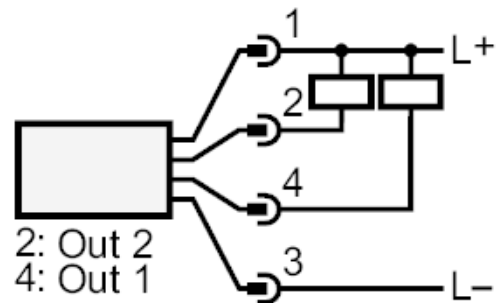
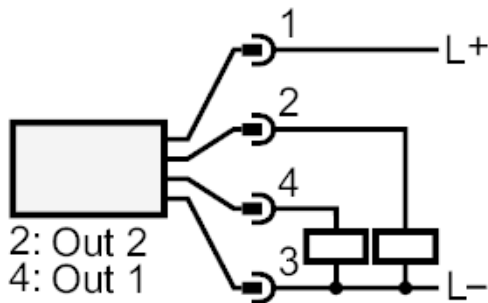


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Connection



OUT1	switching output
OUT2	switching output
	analogue output

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