

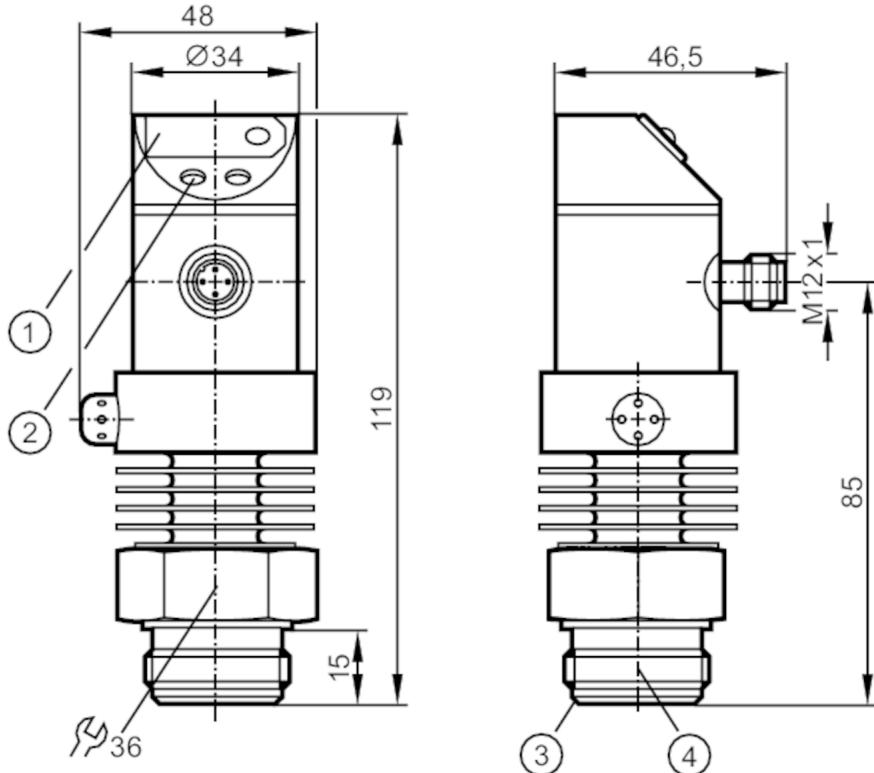
## Flush pressure sensor with display

PI-025-RES30-MFRKG/US/ /P

Article no longer available - archive entry

Alternative articles: PI2093 or PI1093

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



## 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 Aseptoflex external thread Aseptoflex		

## 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...125; (145 max. 1h)		
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		

# PI2053



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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]	(Ub - 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		< ± 0,1; (Turn down 1:1; per year)	

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[% of the span]		
Temperature coefficient zero point		< ± 0,1; (0...80 °C)
[% of the span / 10 K]		
Temperature coefficient span [% of the span / 10 K]		
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	
Operating conditions		
Ambient temperature [°C]		-25...80
Storage temperature [°C]		-40...100
Protection		IP 67
Tests / approvals		
EMC	EN 61000-4-2 ESD EN 61000-4-3 HF radiated EN 61000-4-4 Burst EN 61000-4-6 HF conducted	4 kV CD / 8 kV AD 10 V/m 2 kV 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 Aseptoflex external thread Aseptoflex	
Displays / operating elements		
Display	Switching status Function display Measured values	2 x LED, red 7-segment LED display 7-segment LED display
Display unit	bar; psi; MPa	
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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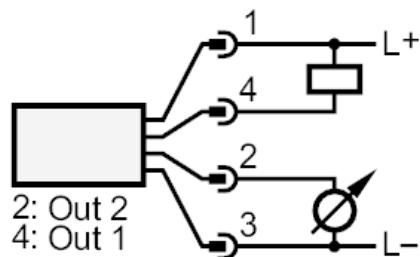
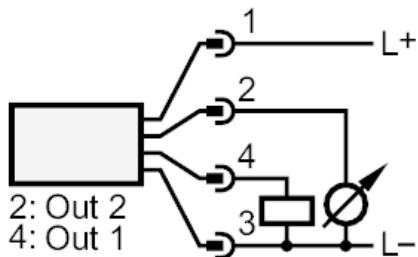
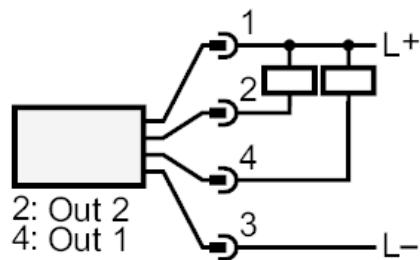
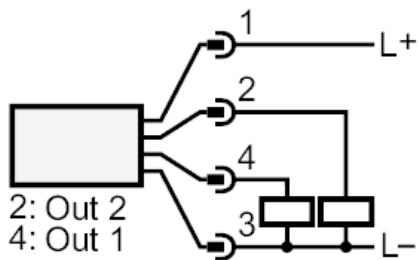
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## Electrical connection

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



## Connection



OUT1

Switching output

OUT2

Switching output

analog output