

PI2098



Flush pressure sensor with display

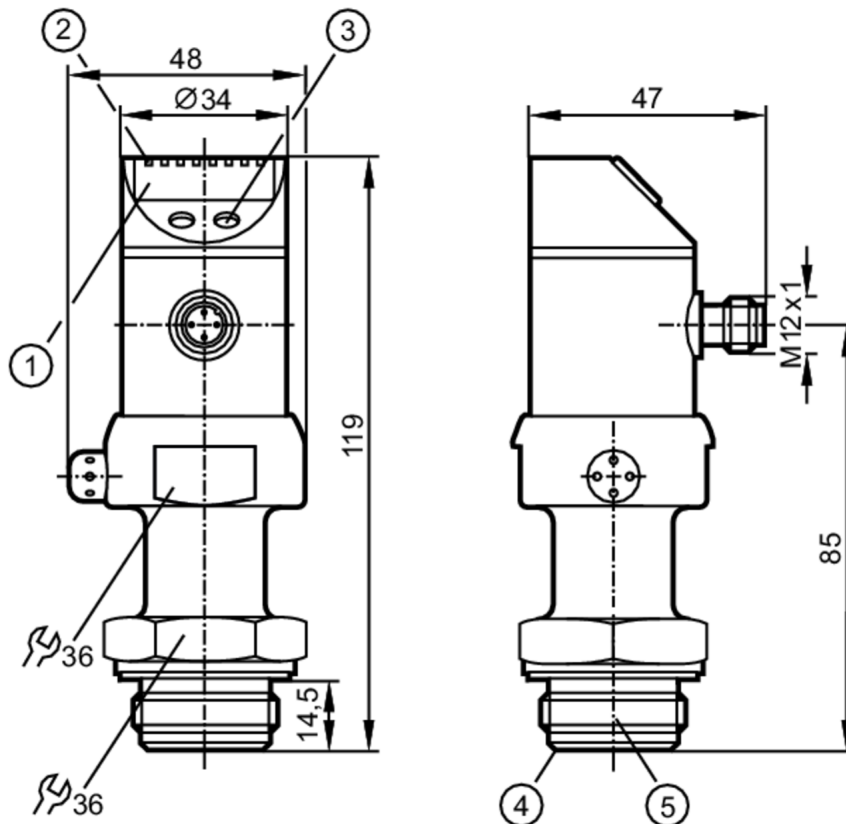
PI-,25BRES30-MFRKG/US/ IP

phase-out article

Alternative articles: PI1008 or PI1708

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 alphanumeric display 4-digit
- 2 status LEDs
- 3 programming button
- 4 Aseptoflex sealing edge
- 5 Aseptoflex thread



Product characteristics

Number of inputs and outputs	Number of digital outputs: 1; Number of analogue outputs: 1	
Measuring range	-0.0124...0.25 bar	-12.4...250 mbar
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...125; (145 max. 1h)



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Min. burst pressure	30000 mbar	3 MPa
Pressure rating	6000 mbar	1 MPa
Type of pressure	relative pressure	
No dead space	yes	

Electrical data		
Operating voltage [V]	18...32 DC	
Current consumption [mA]	< 50	
Min. insulation resistance [MΩ]	100; (500 V DC)	
Protection class	III	
Reverse polarity protection	yes	
Power-on delay time [s]	0.5	
Integrated watchdog	yes	

Inputs / outputs	
Number of inputs and outputs	Number of digital outputs: 1; 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	1
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]	6
Number of analogue outputs	1
Analogue current output [mA]	4...20, invertible; (scalable 1:4)
Max. load [Ω]	(U _b - 10 V) / 20 mA
Analogue voltage output [V]	0...10, invertible; (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	-0.0124...0.25 bar	-12.4...250 mbar
Set point SP [mbar]	-12...250	
Reset point rP [mbar]	-12.4...249.6	
Analogue start point [mbar]	-12.4...187.4	
Analogue end point [mbar]	50...250	
In steps of [mbar]	0.2	
Factory setting	SP1 = 62.4 mbar	rP1 = 57.40 mbar
	ASP = 0.0 mbar	AEP = 250.0 mbar

Accuracy / deviations	
Switch point accuracy	< ± 0,2; (Turn down 1:1)



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	[% of the span]	
Repeatability	[% of the span]	< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)
Characteristics deviation	[% of the span]	< ± 0,2; (Turn down 1:1 , linearity, incl. hysteresis and repeatability , limit value setting to DIN EN IEC 62828-1)
Linearity deviation	[% of the span]	< ± 0,15; (Turn down 1:1)
Hysteresis deviation	[% of the span]	< ± 0,15; (Turn down 1:1)
Long-term stability	[% of the span]	< ± 0,1; (Turn down 1:1; per year)
Temperature coefficient zero point	[% of the span / 10 K]	< ± 0,05; (0...70 °C)
Temperature coefficient span	[% of the span / 10 K]	< ± 0,15; (0...70 °C)

Response times

Response time	[ms]	< 100
Damping process value dAP	[s]	0.1...100
Damping for the analogue output dAA	[s]	0.1...100
Step response time analogue output	[ms]	25

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
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Operating conditions

Ambient temperature	[°C]	-25...80
Storage temperature	[°C]	-40...100
Protection		IP 67; IP 69K

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 61000-4-5 Surge	0,5/1 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]	173

Mechanical data

Weight	[g]	409.5
Housing		cylindrical
Dimensions	[mm]	Ø 34 / L = 119
Materials		stainless steel (316L/1.4404); PC; PBT; PEI; FKM; PTFE
Materials (wetted parts)		ceramics (99.9 % Al2O3); stainless steel (316L/1.4435) surface characteristics: Ra < 0,4 µm / Rz = 4 µm; PTFE
Min. pressure cycles		100 million

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Displays / operating elements

Display	Display unit	6 x, green
	switching status	LED, yellow
	function display	alphanumeric display, 4-digit
	measured values	alphanumeric display, 4-digit
Display unit	mbar; kPa; inH2O; mmWS; % of the span	

Remarks

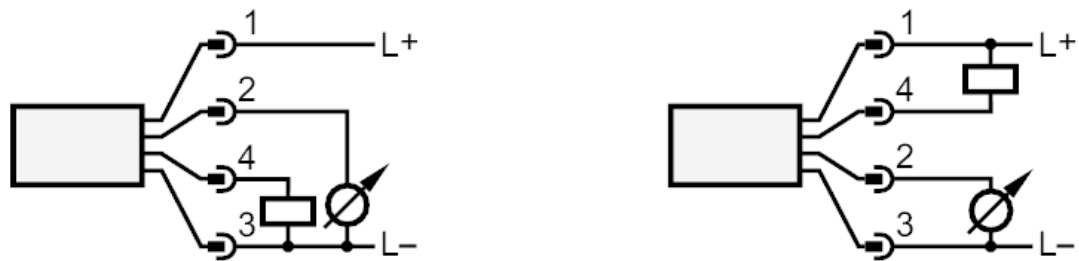
Remarks	The 3-A qualification is only valid if adapters with 3-A qualification are used for installation.
Notes	Please do not use for new projects.; no more adapters available as accessories
Pack quantity	1 pcs.

Electrical connection

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



Connection



OUT1 switching output
 OUT2 analogue output