

PI2098



Flush pressure sensor with display

PI-,25BRES30-MFRKG/US/ IP

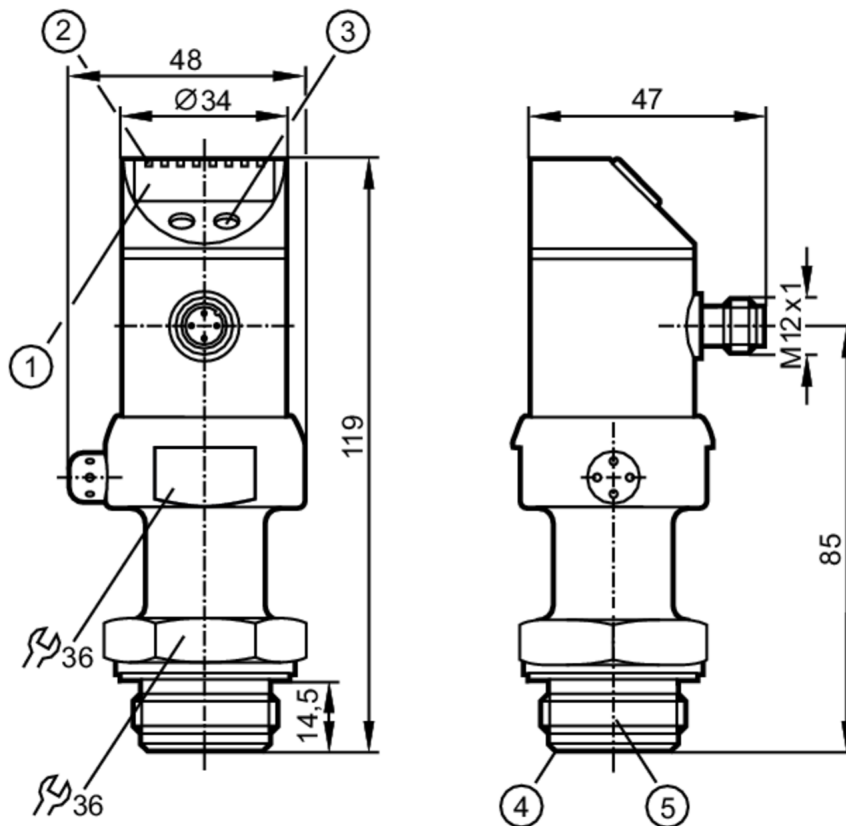
phase-out article

Discontinuation date: 03/31/2024

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



EC 1935/2004 EHEDG Tested FCM FDA UK CA

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

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Medium temperature	[°C]	-25...125; (145 max. 1h)
Min. bursting pressure	[mbar]	30000
Pressure rating	[mbar]	6000
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
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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



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Accuracy / deviations		
Switch point accuracy [% of the span]	< ± 0,2; (Turn down 1:1)	
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	
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
Vibration resistance	DIN IEC 68-2-6	20 g (10...2000 Hz)
MTTF [years]	173	
Mechanical data		
Weight [g]	409.5	
Materials	stainless steel (1.4404 / 316L); PC; PBT; PEI; FKM; PTFE	
Materials (wetted parts)	ceramics (99.9 % Al ₂ O ₃); stainless steel (1.4435 / 316L); surface characteristics: Ra < 0,4 / Rz 4; 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: gold-plated



Connection



OUT1 switching output
 OUT2 analogue output