

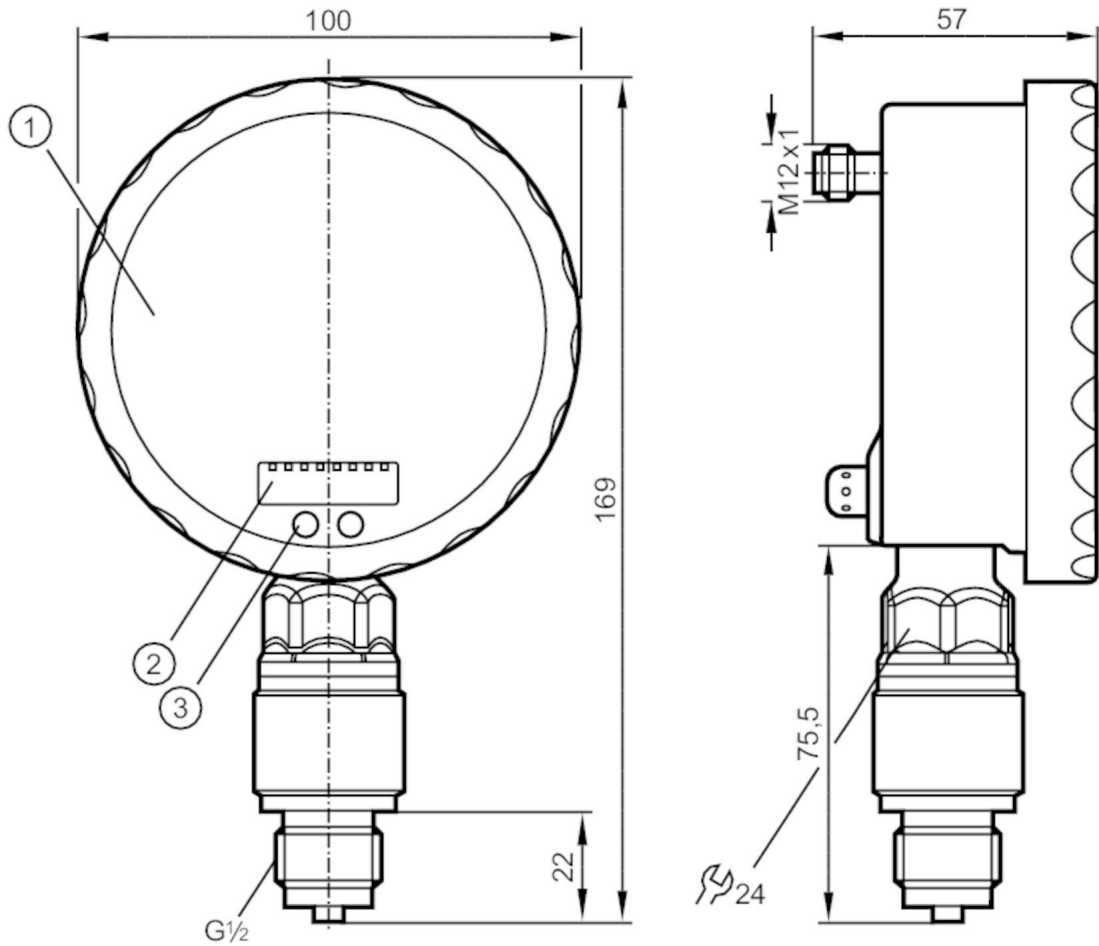
PG2489



Pressure sensor with analog display

PG-,10BREB12-MFRKG/US/ IP

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



- 1 analog display
- 2 alphanumeric display 4-digit
- 3 Touch pad (programming button)



Product characteristics

Number of inputs and outputs	Number of digital outputs: 1; Number of analog outputs: 1		
Measuring range	-0.005...0.1 bar	-5...100 mbar	-2...40.16 inH2O
Process connection	threaded connection G 1/2 external thread		

Application

System	gold-plated contacts		
Application	for industrial applications		
Media	liquids and gases		
Medium temperature [°C]	-25...80		
Min. bursting pressure	30000 mbar	12044 inH2O	
Pressure rating	4000 mbar	1606 inH2O	
Type of pressure	relative pressure		

Electrical data

Operating voltage [V]	18...32 DC		
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Current consumption	[mA]	< 70; (24 V)
Min. insulation resistance	[MΩ]	100; (500 V DC)
Protection class		III
Reverse polarity protection		yes
Power-on delay time	[s]	6
Integrated watchdog		yes

Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 1; Number of analog outputs: 1
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Outputs

Total number of outputs		2
Output signal		switching signal; analog signal; (configurable)
Electrical design		PNP/NPN
Number of digital outputs		1
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]	75
Number of analog outputs		1
Analog current output	[mA]	4...20, invertible; (scalable)
Max. load	[Ω]	(U _b - 10 V) / 20 mA
Short-circuit protection		yes
Type of short-circuit protection		yes (non-latching)
Overload protection		yes

Measuring/setting range

Measuring range	-0.005...0.1 bar	-5...100 mbar	-2...40.16 inH2O
Set point SP	-4.6...160 mbar		-1.84...64.24 inH2O
Reset point rP	-5...159.6 mbar		-2...64.08 inH2O
Analog start point	-5...135 mbar		-2...54.24 inH2O
Analog end point	20...160 mbar		8...64.24 inH2O
In steps of	0.2 mbar		0.08 inH2O

Accuracy / deviations

Switch point accuracy	[% of the span]	< ± 0,6; (Turn down 1:1)
Repeatability	[% of the span]	< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)
Characteristics deviation	[% of the span]	< ± 0,35 (BFSL) / < ± 0,6 (LS); (Turn down 1:1; BFSL = Best Fit Straight Line)
Hysteresis deviation	[% of the span]	< ± 0,5; (Turn down 1:1)
Long-term stability	[% of the span]	< ± 0,1; (Turn down 1:1; per 6 months)
Temperature coefficient zero point	[% of the span / 10 K]	< ± 0,3; (0...70 °C)

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Temperature coefficient span [% of the span / 10 K]	< ± 0,3; (0...70 °C)
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Reaction times

Response time [ms]	< 9
Damping process value dAP [s]	0.01...30
Damping for the analog output dAA [s]	0.01...30
Step response time analog output [ms]	28

Operating conditions

Ambient temperature [°C]	-20...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]		103
Pressure equipment directive	sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	

Mechanical data

Weight [g]	564.8
Material	stainless steel (1.4404 / 316L); PA; FKM; PTFE; viewing glass: laminated safety glass 4 mm
Materials (wetted parts)	Al2O3 (ceramics); FKM; stainless steel (1.4404 / 316L)
Min. pressure cycles	100 million
Process connection	threaded connection G 1/2 external thread
Restrictor element integrated	no (can be retrofitted)

Displays / operating elements

Display	Display unit	2 x LED, green
	Switching status	LED, yellow
	Switch points	LED ring, red
	Function display	alphanumeric display, red 4-digit
	Measured values	analog display, 0...350° rotatable, pointer not visible when unit disconnected
	Measured values	alphanumeric display, red 4-digit
With scale		yes
Extended display range (max.)	160 mbar	64.24 inH2O

Remarks

Remarks	switch point accuracy in the extended display range: 1.5 % of the span
Pack quantity	1 pcs.

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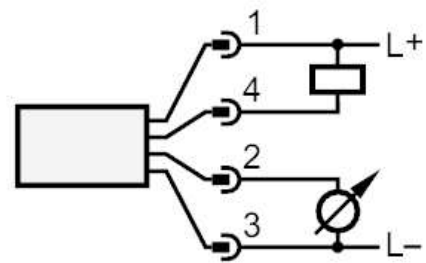
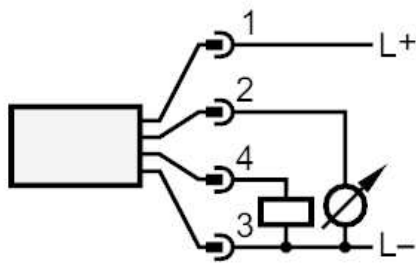
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Electrical connection

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



Connection



OUT1
OUT2

Switching output
analog output