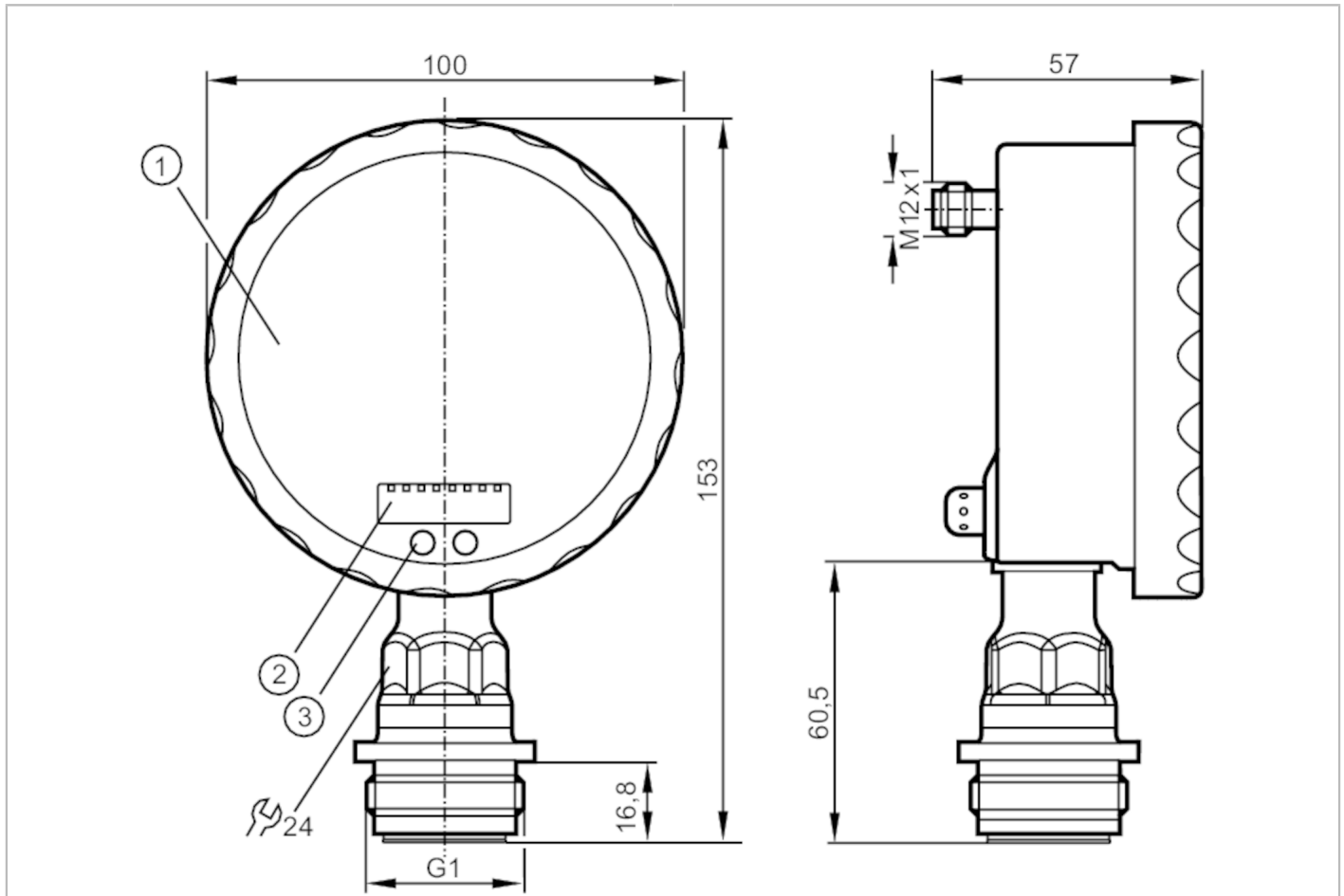


# PG2789



## Flush pressure sensor with analog display

PG-,10BREA01-MFRKG/US/ IP



- 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...40.15 inH2O
Process connection	threaded connection G 1 external thread with Aseptoflex Vario sealing contour		
Note	G1 Gewinde nach ISO 228. Alternativ dichtend über rückwärtige Dichtkontur mit Dichtung in Anlehnung an DIN EN ISO 1179-2.		

### Application

Special feature	gold-plated contacts		
Application	flush mountable for the food and beverage industry		
Media	viscous media and liquids with suspended particles; liquids and gases		
Medium temperature [°C]	-25...125; (145 max. 1h)		
Min. burst pressure	30000 mbar	12043 inH2O	3 MPa
Pressure rating	4000 mbar	1605 inH2O	0.4 MPa
Type of pressure	relative pressure		
No dead space	yes		
MAWP (for applications according to CRN) [bar]	4		



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Electrical data		
Operating voltage	[V]	18...32 DC
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

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] 50
Number of analog outputs	1
Analog current output	[mA] 4...20, invertible; (scalable)
Max. load	[Ω] (U <sub>b</sub> - 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...40.15 inH2O
Set point SP	-4.8...160 mbar		-1.95...64.25 inH2O
Reset point rP	-5...159.8 mbar		-2.05...64.15 inH2O
Analog start point	-5...135 mbar		-2...54.2 inH2O
Analog end point	20...160 mbar		8.05...64.25 inH2O
In steps of	0.1 mbar		0.05 inH2O

Accuracy / deviations	
Switch point accuracy	< ± 0,5; (Turn down 1:1)
Repeatability	< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)
Characteristics deviation	< ± 0,5; (Turn down 1:1, linearity, incl. hysteresis and repeatability, limit value setting to DIN EN IEC 62828-1)
Linearity deviation	< ± 0,25; (Turn down 1:1)
Hysteresis deviation	< ± 0,2; (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]	< ± 0,1; (0...70 °C)
Temperature coefficient span	[% of the span / 10 K]	< ± 0,2; (0...70 °C)

### Reaction times

Response time	[ms]	< 10
Damping process value dAP	[s]	0.01...30
Damping for the analog output dAA	[s]	0.01...30
Step response time analog output	[ms]	25

### 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 EN 60068-2-27
Vibration resistance	DIN EN 60068-2-6	10 g (10...2000 Hz)
MTTF	[years]	100
Note on approval		Factory certificate available as download at <a href="http://www.factory-certificate.ifm">www.factory-certificate.ifm</a>
UL approval	File number UL	E174189

### Mechanical data

Weight	[g]	520
Dimensions	[mm]	153 x 100 x 57
Material		stainless steel (1.4404 / 316L); PA; FKM; PTFE; viewing glass: laminated safety glass 4 mm
Materials (wetted parts)		stainless steel (1.4435 / 316L) surface characteristics: Ra < 0,4 µm / Rz = 4 µm; ceramics (99.9 % Al2O3); PTFE
Min. pressure cycles		100 million
Process connection		threaded connection G 1 external thread with Aseptoflex Vario sealing contour

### 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	64.25 inH2O

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### Remarks

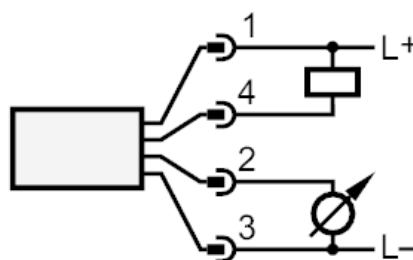
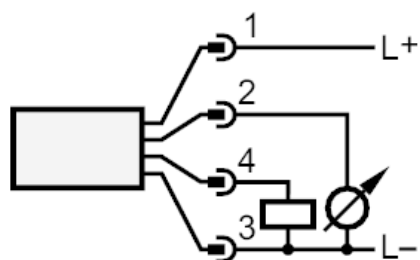
Remarks	characteristics deviation in the extended display range:1.5 % of the span switch point accuracy in the extended display range: 1.5 % of the span
Pack quantity	1 pcs.

### Electrical connection

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



### Connection



OUT1            Switching output  
OUT2            analog output