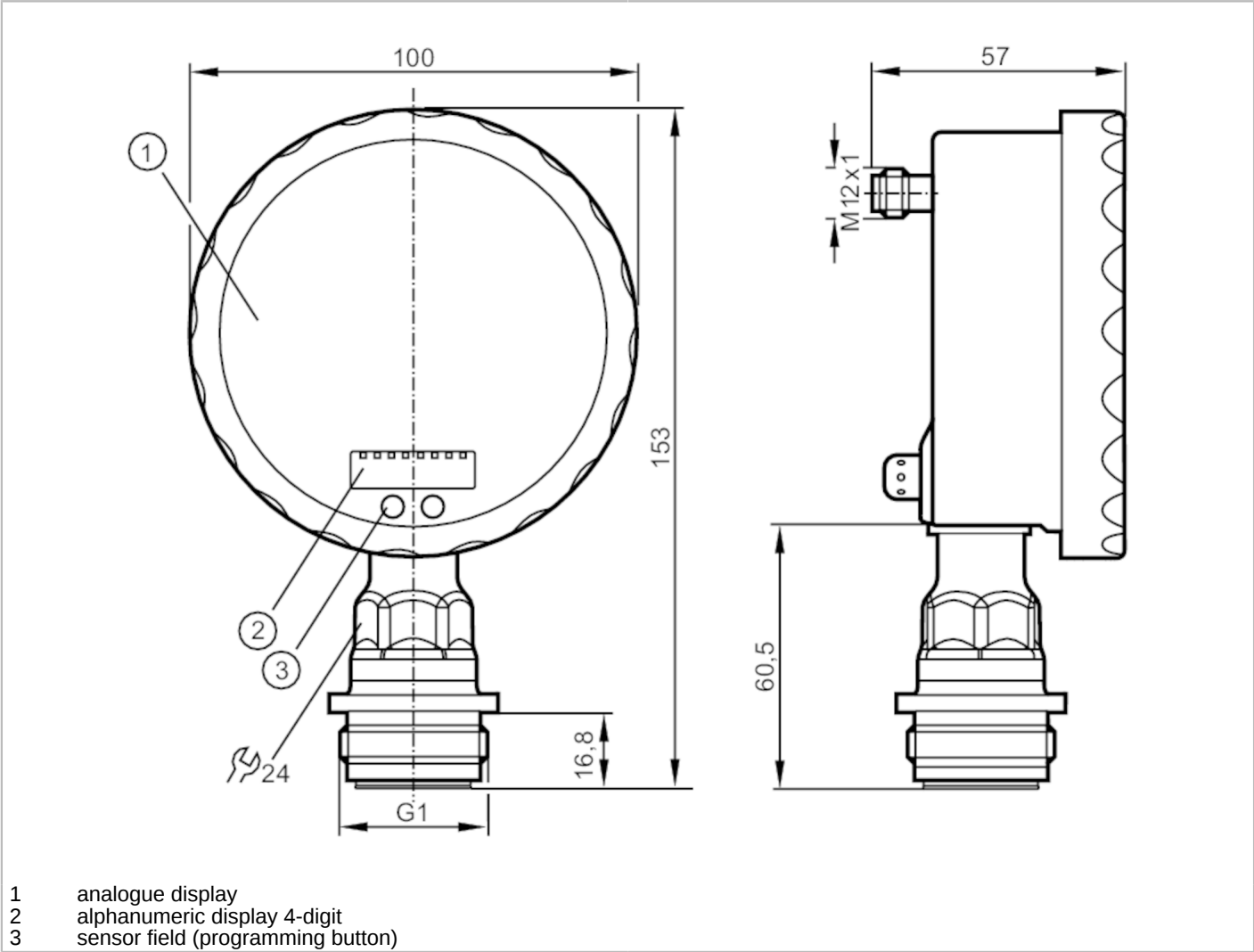


PG2789



Flush pressure sensor with analogue display

PG-,10BREA01-MFRKG/US/ /P



- 1 analogue display
- 2 alphanumeric display 4-digit
- 3 sensor field (programming button)



Product characteristics

Number of inputs and outputs	Number of digital outputs: 1; Number of analogue outputs: 1		
Measuring range	-0.005...0.1 bar	-5...100 mbar	-2...40.15 inH2O
Process connection	threaded connection G 1 external thread Aseptoflex Vario		

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. bursting pressure	30000 mbar	12043 inH2O
Pressure rating	4000 mbar	1605 inH2O
Type of pressure	relative pressure	
No dead space	yes	
MAWP (for applications according to CRN) [bar]	4	



Flush pressure sensor with analogue display

PG-,10BREA01-MFRKG/US/ /P

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	
Measuring principle		hydrostatic	
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]	50	
Number of analogue outputs		1	
Analogue current output	[mA]	4...20, invertible; (scalable)	
Max. load	[Ω]	(Ub - 10 V) / 20 mA	
Short-circuit protection		yes	
Type of short-circuit protection		pulsed	
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
Analogue start point		-5...135 mbar	-2...54.2 inH2O
Analogue end point		20...160 mbar	8.05...64.25 inH2O
In steps of		0.1 mbar	0.05 inH2O
Accuracy / deviations			
Switch point accuracy	[X21]	< ± 0,5; (Turn down 1:1)	
Repeatability	[X21]	< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)	
Characteristics deviation	[X21]	< ± 0,5; (Turn down 1:1 , linearity, incl. hysteresis and repeatability , limit value setting to DIN EN IEC 62828-1)	
Linearity deviation	[X21]	< ± 0,25; (Turn down 1:1)	
Hysteresis deviation	[X21]	< ± 0,2; (Turn down 1:1)	
Long-term stability	[X21]	< ± 0,1; (Turn down 1:1; per year)	
Temperature coefficient zero point	[X22]	< ± 0,1; (0...70 °C)	



Flush pressure sensor with analogue display

PG-,10BREA01-MFRKG/US/ /P

Temperature coefficient span	[X22]	< ± 0,2; (0...70 °C)	
Response times			
Response time	[ms]	< 10	
Damping process value dAP	[s]	0.01...30	
Damping for the analogue output dAA	[s]	0.01...30	
Step response time analogue 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 IEC 68-2-27	50 g (11 ms)
Vibration resistance		DIN IEC 68-2-6	20 g (10...2000 Hz)
MTTF	[ANN]	100	
Note on approval		factory certificate available as download at www.factory-certificate.ifm	
UL approval		File number UL	E174189
Mechanical data			
Weight	[g]	520	
Materials		stainless steel (316L/1.4404); PA; FKM; PTFE; viewing glass: laminated safety glass 4 mm	
Materials (wetted parts)		ceramics (99.9 % Al2O3); stainless steel (316L/1.4435); surface characteristics: Ra < 0,4 / Rz 4; PTFE	
Min. pressure cycles		100 million	
Process connection		threaded connection G 1 external thread Aseptoflex Vario	
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	analogue 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
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.	



Flush pressure sensor with analogue display

PG-,10BREA01-MFRKG/US/ /P

Electrical connection

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



Connection



OUT1
OUT2

switching output
analogue output