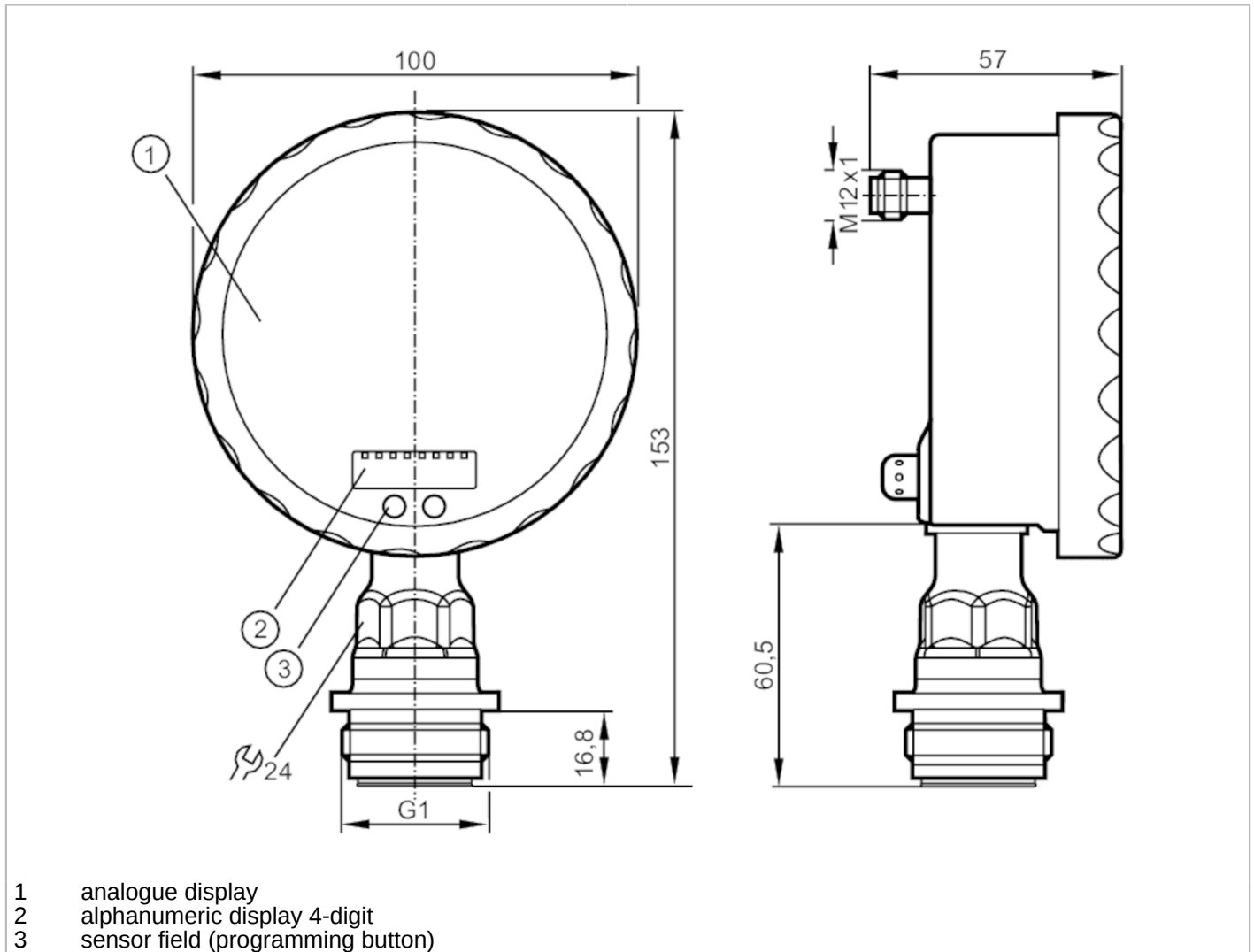


PG2797



Flush pressure sensor with analogue display

PG-001-REA01-MFRKG/US/ /P



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



Product characteristics

Output signal	switching signal; analogue signal; (configurable)		
Measuring range	-0.05...1 bar	-50...1000 mbar	-0.73...14.5 psi
Process connection	threaded connection G 1 external thread Aseptoflex Vario		

Application

Special feature	Gold-plated contacts		
Application	food and beverage industry; Safety manometer (S) based on DIN EN 837-1		
Media	viscous media and liquids with suspended particles; liquids and gases		
Medium temperature [°C]	-25...125; (145 max. 1h)		
Pressure rating	10 bar	145 psi	
Min. bursting pressure	30 bar	435 psi	
Type of pressure	relative pressure		
No dead space	yes		
MAWP (for applications according to CRN) [bar]	10		



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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 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]	(U _b - 10 V) / 20 mA	
Short-circuit protection		yes	
Type of short-circuit protection		pulsed	
Overload protection		yes	
Measuring/setting range			
Measuring range		-0.05...1 bar	-50...1000 mbar
			-0.73...14.5 psi
Set point SP		-0.048...1.6 bar	
		-0.7...23.21 psi	
Reset point rP		-0.05...1.598 bar	
		-0.73...23.18 psi	
Analogue start point		-0.05...1.35 bar	
		-0.73...19.58 psi	
Analogue end point		0.2...1.6 bar	
		2.9...23.21 psi	
In steps of		0.001 bar	
		0.01 psi	
Accuracy / deviations			
Switch point accuracy		< ± 0,2; (Turn down 1:1)	
	[% of the span]		
Repeatability		< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)	
	[% of the span]		
Characteristics deviation		< ± 0,2; (Turn down 1:1 linearity, incl. hysteresis and repeatability limit value setting to DIN 16086)	
	[% of the span]		
Linearity deviation		< ± 0,15; (Turn down 1:1)	
	[% of the span]		
Hysteresis deviation		< ± 0,15; (Turn down 1:1)	
	[% of the span]		
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]	< ± 0,05; (0...70 °C)
Temperature coefficient span	[% of the span / 10 K]	< ± 0,15; (0...70 °C)

Response times

Response time	[ms]	< 10
Damping for the switching output 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	[years]	100
Note on approval		factory certificate available as download at www.factory-certificate.ifm

Mechanical data

Weight	[g]	549.5
Materials		stainless steel (1.4404 / 316L); PA; FKM; PTFE; viewing glass: laminated safety glass 4 mm
Materials (wetted parts)		ceramics (99.9 % Al ₂ O ₃); PTFE; stainless steel (1.4435 / 316L); surface characteristics: Ra < 0,4 / Rz 4
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.)	1.6 bar	23.21 psi

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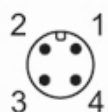
PG-001-REA01-MFRKG/US/ /P

Remarks

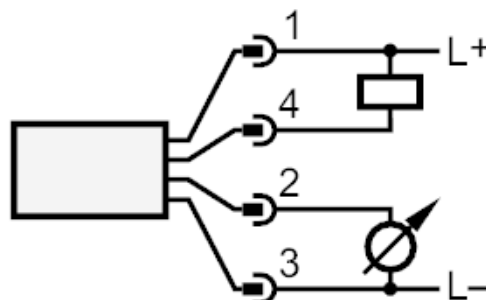
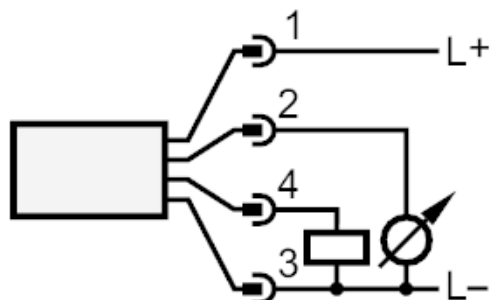
Remarks	characteristics deviation in the extended display range: 1.5 % of the span switch point accuracy in the extended display range: 1.5 % of the span
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; Contacts: gold-plated



Connection



OUT1	switching output
OUT2	analogue output