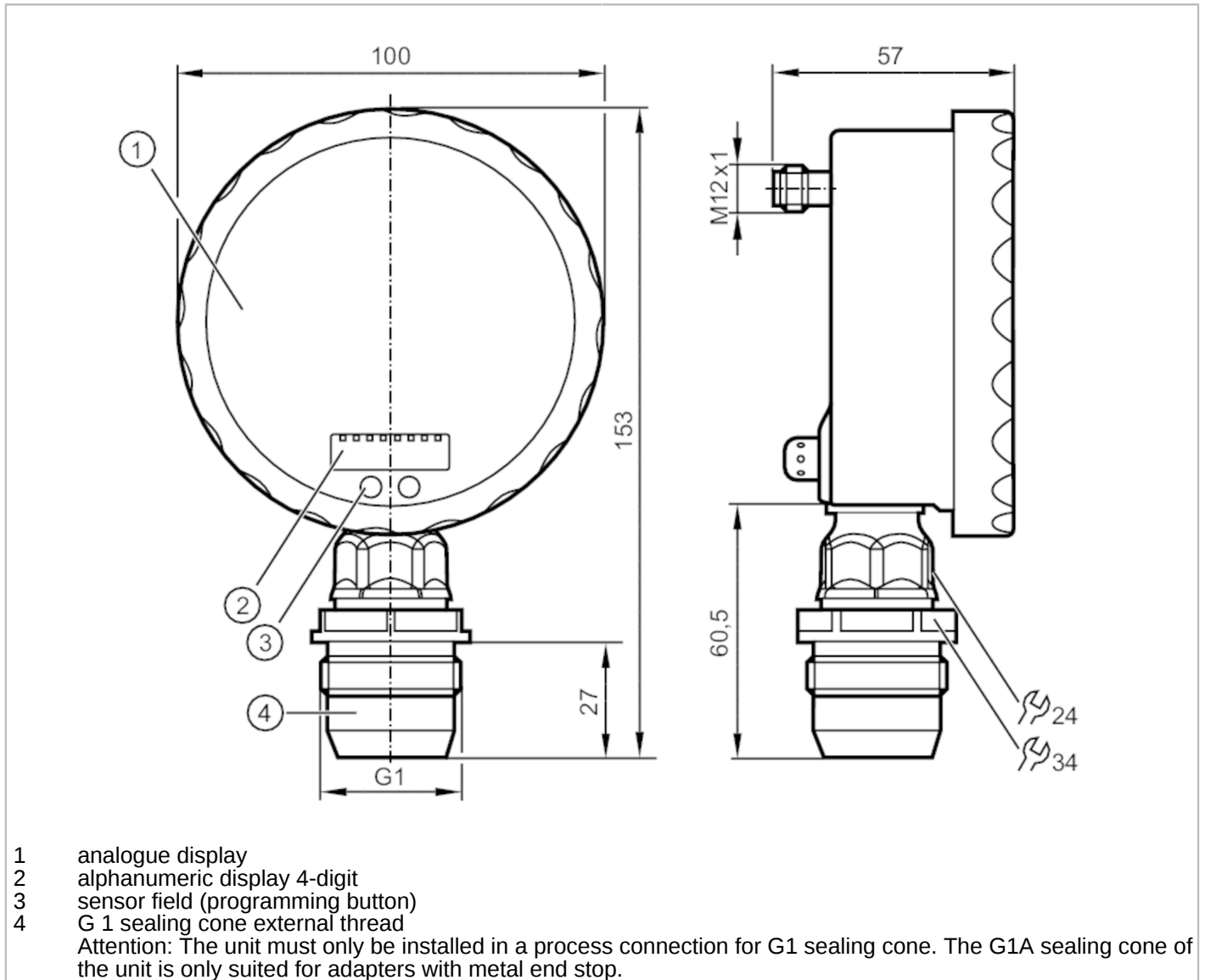




Flush pressure sensor with analogue display

PG-,10BREA01-MFRKG/US/ IP



ACS CE CRN cUL^{us} LISTED EAC EC 1935/2004 EHEDG Certified FCM FDA S

Product characteristics

Output signal	switching signal; analogue signal; (configurable)		
Measuring range	-0.005...0.1 bar	-5...100 mbar	-2...40.15 inH2O
Process connection	threaded connection G 1 external thread sealing cone		

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	4000 mbar	1605 inH2O	
Min. bursting pressure	30000 mbar	12043 inH2O	
Type of pressure	relative pressure		
MAWP (for applications according to CRN) [bar]	4		



Flush pressure sensor with analogue display

PG-,10BREA01-MFRKG/US/ IP

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	-0.005...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 [% of the span]	< ± 0,5; (Turn down 1:1)
Repeatability [% of the span]	< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)
Characteristics deviation [% of the span]	< ± 0,5; (Turn down 1:1 linearity, incl. hysteresis and repeatability limit value setting to DIN 16086)
Linearity deviation [% of the span]	< ± 0,25; (Turn down 1:1)
Hysteresis deviation [% of the span]	< ± 0,2; (Turn down 1:1)
Long-term stability	< ± 0,1; (Turn down 1:1; per year)



Flush pressure sensor with analogue display

PG-,10BREA01-MFRKG/US/ IP

	[% of the span]	
Temperature coefficient zero point	[% of the span / 10 K]	$< \pm 0,1; (0...70\text{ °C})$
Temperature coefficient span	[% of the span / 10 K]	$< \pm 0,2; (0...70\text{ °C})$

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]	559
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 sealing cone

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 inH ₂ O

PG2889



Flush pressure sensor with analogue display

PG-,10BREA01-MFRKG/US/ IP

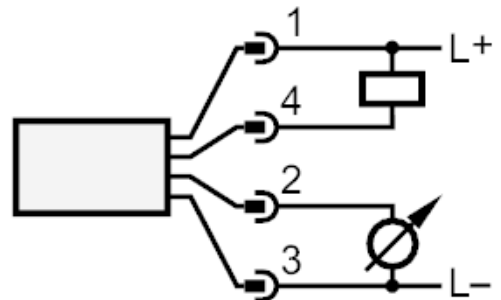
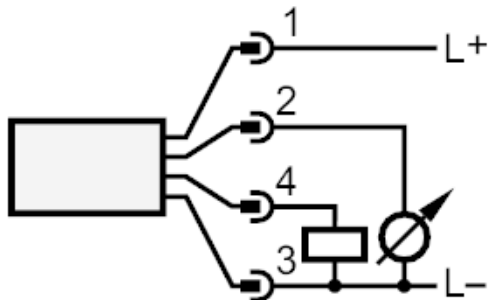
Remarks	
Remarks	Attention: The unit must only be installed in a process connection for G1 sealing cone. The G1A sealing cone of the unit is only suited for adapters with metal end stop. characteristics deviation in the extended display range: 1.5 % of the span switch point accuracy in the extended display 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