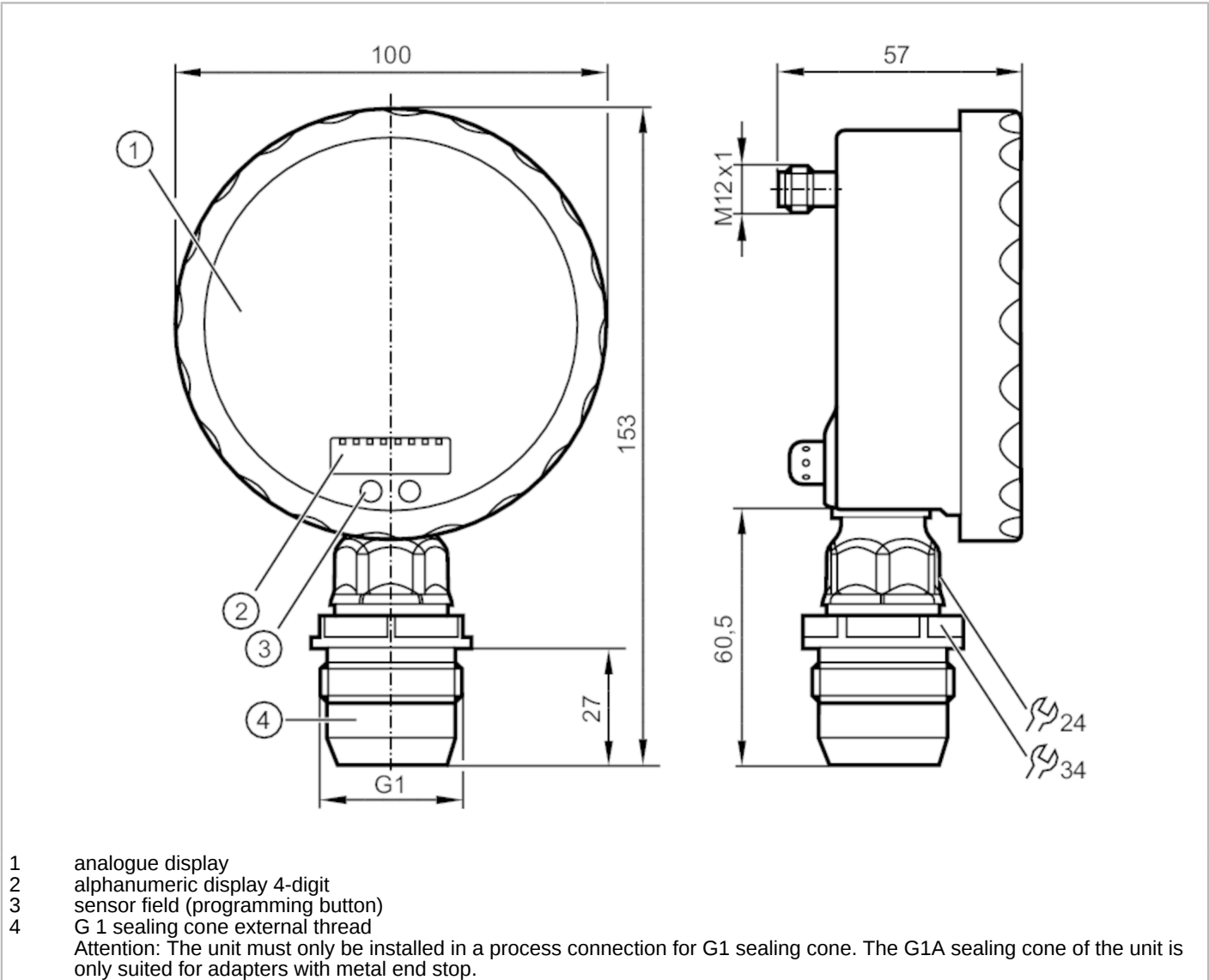




Flush pressure sensor with analogue display

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



ACS CRN EC 1935/2004 EHEDG Tested FCM UK CA

Product characteristics			
Number of inputs and outputs		Number of digital outputs: 1; Number of analogue outputs: 1	
Measuring range		-0.05...1 bar	-50...1000 mbar -0.73...14.5 psi
Process connection		threaded connection G 1 external thread sealing cone 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.	
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		30 bar	435 psi
Pressure rating		10 bar	145 psi
Type of pressure		relative pressure	



Flush pressure sensor with analogue display

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

MAWP (for applications according to CRN)	[bar]	10
--	-------	----

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]	(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	[X21]	< ± 0,2; (Turn down 1:1)
Repeatability	[X21]	< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)
Characteristics deviation	[X21]	< ± 0,2; (Turn down 1:1, linearity, incl. hysteresis and repeatability, limit value setting to DIN EN IEC 62828-1)
Linearity deviation	[X21]	< ± 0,15; (Turn down 1:1)
Hysteresis deviation	[X21]	< ± 0,15; (Turn down 1:1)
Long-term stability	[X21]	< ± 0,1; (Turn down 1:1; per year)



Flush pressure sensor with analogue display

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

Temperature coefficient zero point	[X22]	< ± 0,05; (0...70 °C)	
Temperature coefficient span	[X22]	< ± 0,15; (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	
Mechanical data			
Weight	[g]	533	
Materials		stainless steel (1.4404 / 316L); PA; FKM; PTFE; viewing glass: laminated safety glass 4 mm	
Materials (wetted parts)		ceramics (99.9 % Al2O3); stainless steel (1.4435 / 316L); surface characteristics: Ra < 0,4 / Rz 4; PTFE	
Min. pressure cycles		100 million	
Process connection		threaded connection G 1 external thread sealing cone 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.	
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	
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-001-REA01-MFRKG/US/ /P

Electrical connection

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



Connection



OUT1
OUT2

switching output
analogue output