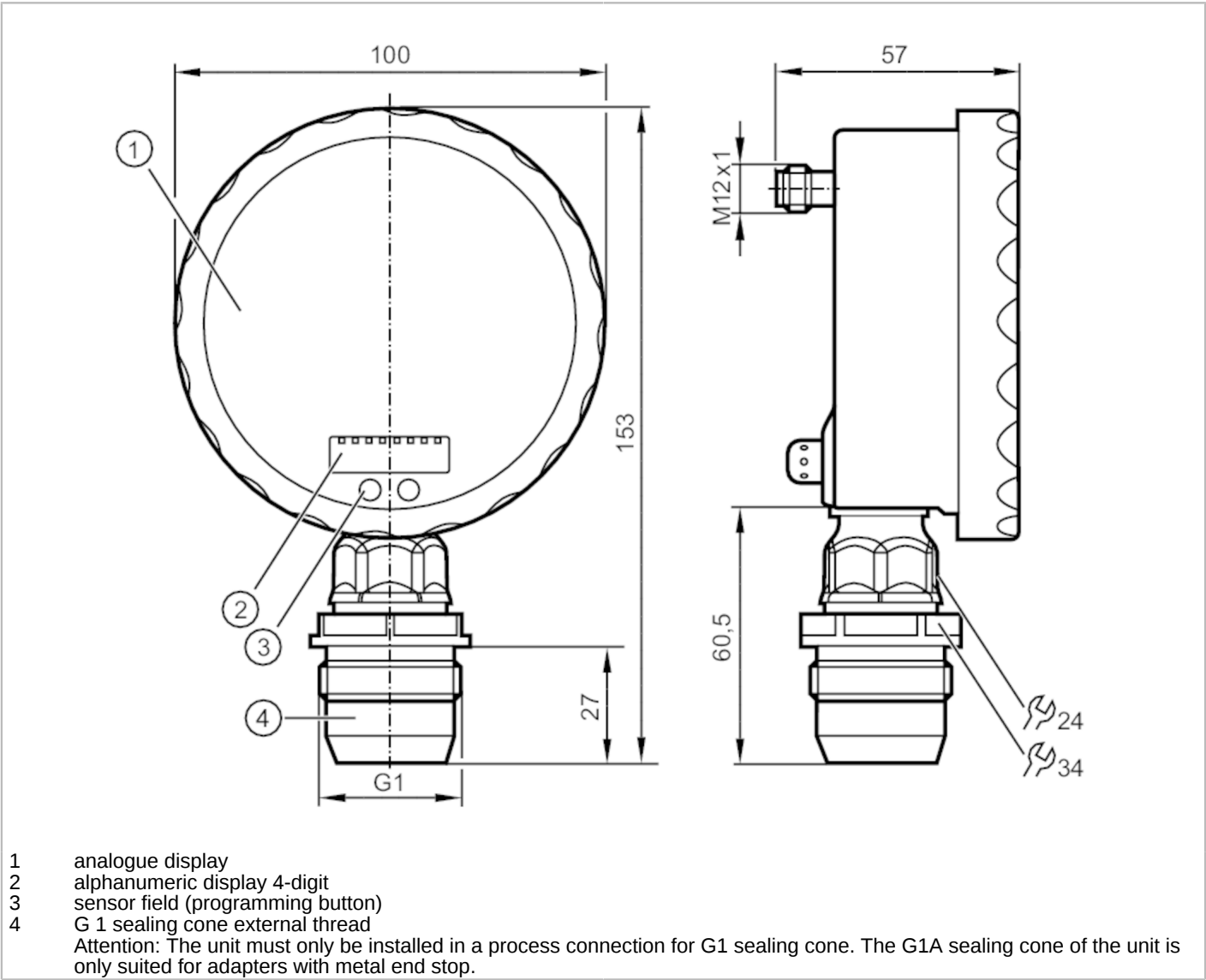




Flush pressure sensor with analogue display

PG-010-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	-1...10 bar	-14.5...145 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	150 bar	2175 psi
Min. bursting pressure [MPa]	15	
Pressure rating	50 bar	725 psi
Pressure rating [MPa]	5	



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Type of pressure	relative pressure; vacuum	
MAWP (for applications according to CRN) [bar]	50	
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]	(Ub - 10 V) / 20 mA	
Short-circuit protection	yes	
Type of short-circuit protection	pulsed	
Overload protection	yes	
Measuring/setting range		
Measuring range	-1...10 bar	-14.5...145 psi
Set point SP	-0.98...16 bar	-14.2...232 psi
Reset point rP	-1...15.98 bar	-14.5...231.8 psi
Analogue start point	-1...13.5 bar	-14.5...195.7 psi
Analogue end point [bar]	1.5...16	
In steps of	0.01 bar	0.1 psi
Accuracy / deviations		
Switch point accuracy [% of the span]	< ± 0,2; (Turn down 1:1)	
Repeatability [% of the span]	< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)	
Characteristics deviation [% of the span]	< ± 0,2; (Turn down 1:1 , linearity, incl. hysteresis and repeatability , limit value setting to DIN EN IEC 62828-1)	
Linearity deviation [% of the span]	< ± 0,15; (Turn down 1:1)	



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Hysteresis deviation [% of the span]	$< \pm 0,15$; (Turn down 1:1)
Long-term stability [% of the span]	$< \pm 0,1$; (Turn down 1:1; per year)
Temperature coefficient zero point [% of the span / 10 K]	$< \pm 0,05$; (0...70 °C)
Temperature coefficient span [% of the span / 10 K]	$< \pm 0,15$; (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 [years]	100	
Note on approval	factory certificate available as download at www.factory-certificate.ifm	

Mechanical data

Weight [g]	532.4
Dimensions [mm]	153 x 100 x 57
Materials	stainless steel (316L/1.4404); PA; FKM; PTFE; viewing glass: laminated safety glass 4 mm
Materials (wetted parts)	ceramics (99.9 % Al ₂ O ₃); 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 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

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With scale	yes	
Extended display range (max.)	16 bar	232 psi

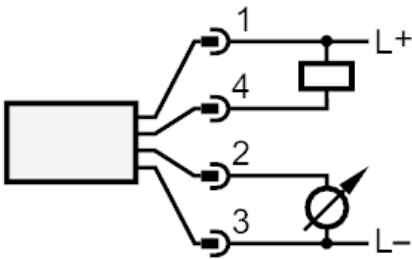
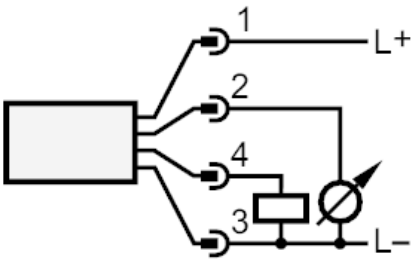
Remarks		
Remarks	characteristics deviation in the extended display range: 1.5 % of the span	
	switch point accuracy in the extended display range: 1.5 % of the span	
Pack quantity	1 pcs.	

Electrical connection

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



Connection



OUT1 switching output
OUT2 analogue output