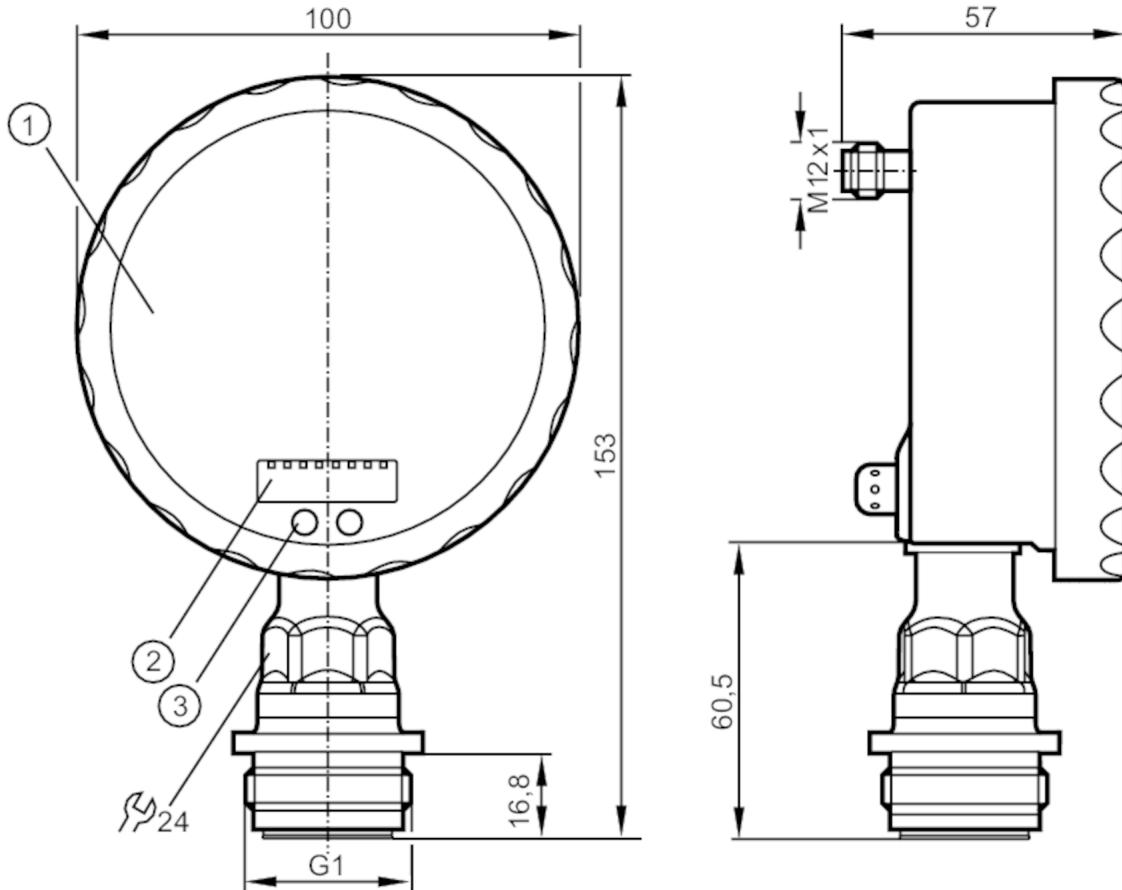


Flush pressure sensor with analogue display

PG-010KREA01-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	-100...1000 kPa	-0.1...1 MPa
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 [kPa]	15000	
Pressure rating [kPa]	5000	
Type of pressure	relative pressure; vacuum	
No dead space	yes	
MAWP (for applications according to CRN) [bar]	50	

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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]	(Ub - 10 V) / 20 mA
Short-circuit protection		yes
Type of short-circuit protection		pulsed
Overload protection		yes
Measuring/setting range		
Measuring range		-100...1000 kPa -0.1...1 MPa
Set point SP	[kPa]	-98...1600
Reset point rP	[kPa]	-100...1598
Analogue start point	[kPa]	-100...1350
Analogue end point	[kPa]	150...1600
In steps of	[kPa]	1
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)
Temperature coefficient zero point	[X22]	< ± 0,05; (0...70 °C)

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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 EN 61000-4-3 HF radiated EN 61000-4-4 Burst EN 61000-4-5 Surge EN 61000-4-6 HF conducted	4 kV CD / 8 kV AD 10 V/m 2 kV 0,5/1 kV 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]		524
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 Aseptoflex Vario	
Displays / operating elements		
Display	Display unit switching status switch points function display measured values measured values	2 x LED, green LED, yellow LED ring, red alphanumeric display, red 4-digit analogue display, 0...350° rotatable, pointer not visible when unit disconnected alphanumeric display, red 4-digit
Extended display range (max.) [kPa]		1600
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.	

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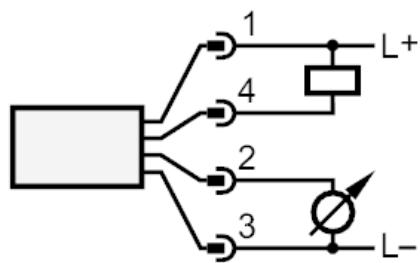
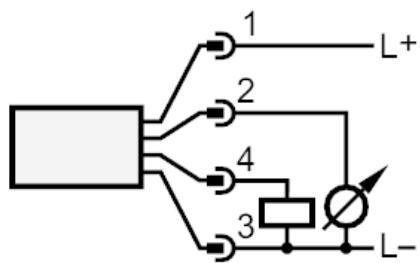
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Electrical connection

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



Connection



OUT1
OUT2

switching output
analogue output