

# PG2793



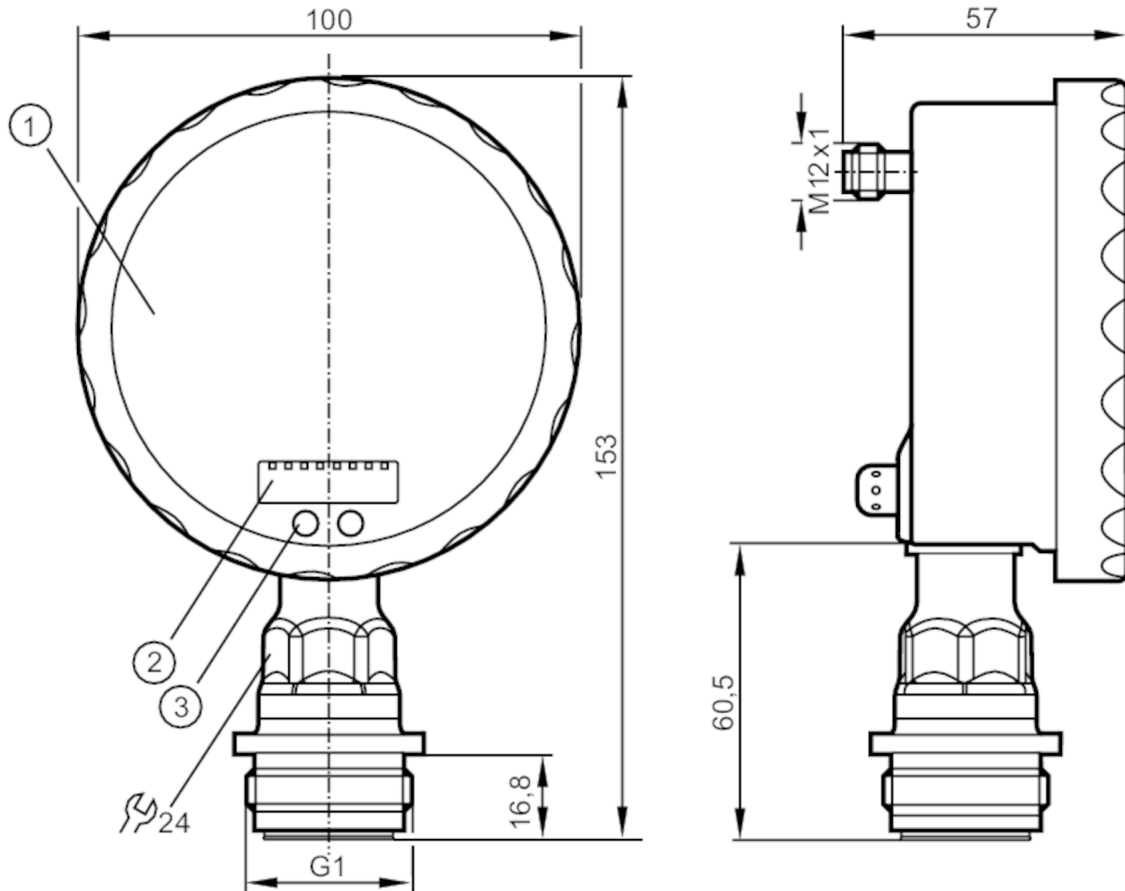
## Flush pressure sensor with analogue display

PG-025-REA01-MFRKG/US/ /P

phase-out article

Alternative articles: PG1703

When selecting an alternative article and accessories please note that technical data may differ!



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



ACS



CRN



EC 1935/2004

EHEDG Certified

FCM

FDA

NSF

Reg31

S

UK

CA

### Product characteristics

Number of inputs and outputs	Number of digital outputs: 1; Number of analogue outputs: 1	
Measuring range	-1...25 bar	-14.4...362.7 psi
Process connection	threaded connection G 1 external thread with Aseptoflex Vario sealing contour	
Note	G1 Gewinde nach ISO 228. Alternativ dichtend über rückwärtige Dichtkontur mit Dichtung in Anlehnung an DIN EN ISO 1179-2.	

### 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. burst pressure	350 bar	5070 psi
		35 MPa



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Pressure rating	100 bar	1450 psi	10 MPa
Type of pressure	relative pressure; vacuum		
No dead space	yes		
MAWP for applications according to CRN [bar]	60		

### 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		
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### 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 <sub>b</sub> - 10 V) / 20 mA		
Short-circuit protection	yes		
Type of short-circuit protection	pulsed		
Overload protection	yes		

### Measuring/setting range

Measuring range	-1...25 bar	-14.4...362.7 psi
Set point SP	-0.96...40 bar	-13.8...580.2 psi
Reset point rP	-1...39.96 bar	-14.4...579.6 psi
Analogue start point	-1...33.76 bar	-14.4...489.6 psi
Analogue end point	5.24...40 bar	75.9...580.2 psi
In steps of	0.02 bar	0.3 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)	

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Linearity deviation [% of the span]	$< \pm 0,15$ ; (Turn down 1:1)
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 EN 60068-2-27
Vibration resistance	DIN EN 60068-2-6	10 g (10...2000 Hz)
MTTF [years]		100
Note on approval	factory certificate available as download at <a href="http://www.factory-certificate.ifm">www.factory-certificate.ifm</a>	

### Mechanical data

Weight [g]	521.45
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)	stainless steel (316L/1.4435) surface characteristics: Ra $< 0,4 \mu\text{m}$ / Rz = 4 $\mu\text{m}$ ; ceramics (99.9 % Al <sub>2</sub> O <sub>3</sub> ); PTFE
Min. pressure cycles	100 million
Process connection	threaded connection G 1 external thread with Aseptoflex Vario sealing contour

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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.)	40 bar	580.2 psi

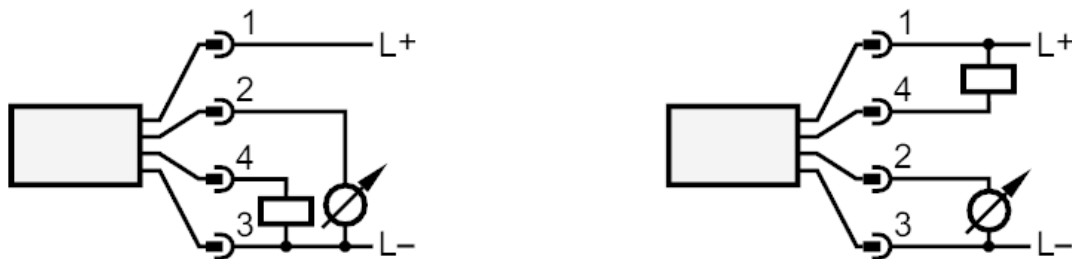
Remarks	
Remarks	characteristics deviation in the extended display range: 1.5 % of the span switch point accuracy in the extended display range: 1.5 % of the span
Pack quantity	1 pcs.

### Electrical connection

Connector: 1 x M12; coding: A; Contacts: 4, gold-plated



### Connection



OUT1            switching output  
OUT2            analogue output