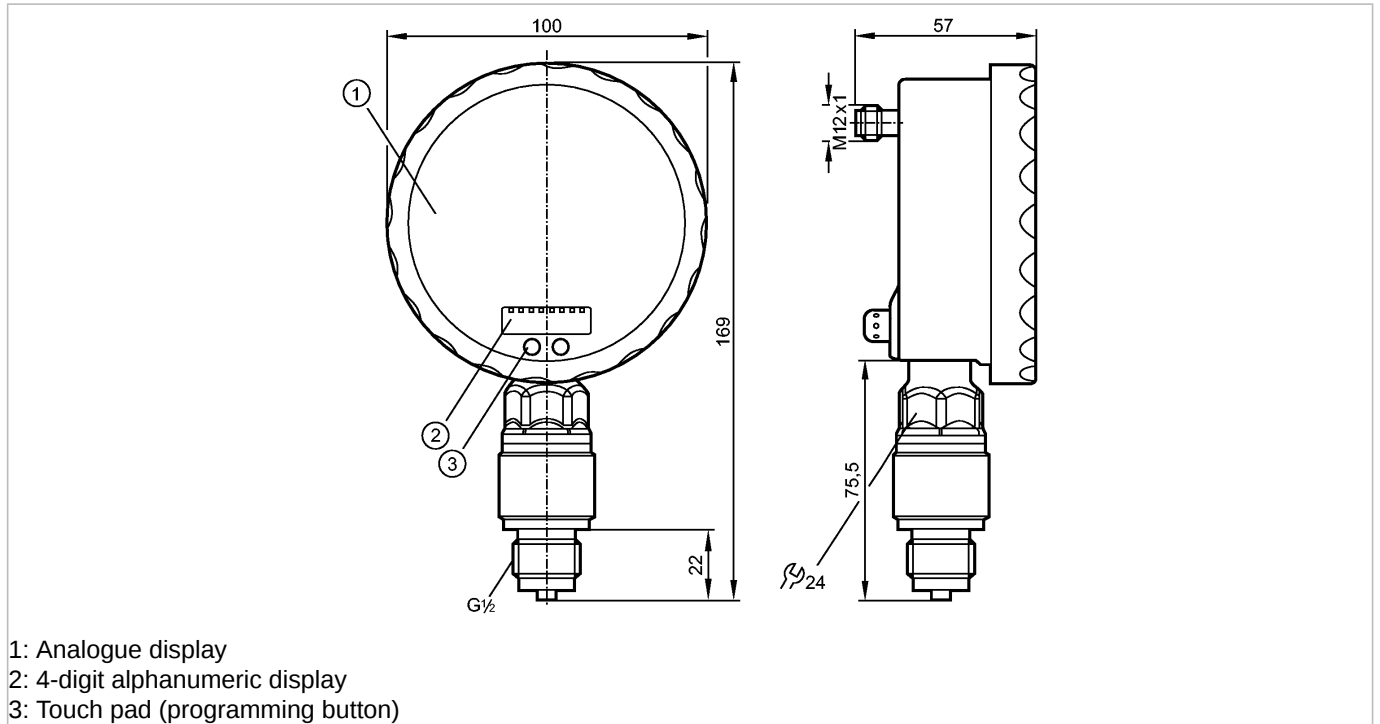


PG2457

PG-001-REB12-MFRKG/US/ /P

Pressure sensors



- 1: Analogue display
- 2: 4-digit alphanumeric display
- 3: Touch pad (programming button)



Product characteristics

Electronic pressure sensor with analog display

Quick disconnect

Analog display 0...350° rotatable

Resolution 0.25%

Pointer not visible when unit disconnected

Process connection: G 1/2

2 Output

OUT1 = Switching output

OUT2 = Analog output

analog display, 4-digit alphanumeric display

Measuring range: -0.05...1 bar / -0.72...14.5 psi

Application

Application	Type of pressure: relative pressure Liquids and gases	
Pressure rating	10 bar	145 psi
Bursting pressure min.	30 bar	435 psi
Medium temperature [°C]	-25...80	

Electrical data

Electrical design	DC PNP/NPN
Operating voltage [V]	18...32 DC
Current consumption [mA]	70 (24 V)
Insulation resistance [MΩ]	> 100 (500 V DC)
Protection class	III
Reverse polarity protection	yes

Outputs

PG2457

PG-001-REB12-MFRKG/US/ /P

Pressure sensors

Output	2 Output OUT1 = Switching output OUT2 = Analog output	
Output function	1 x normally open / closed programmable + 1 x analogue (4...20 / 20...4 mA, scalable)	
Current rating [mA]	250	
Voltage drop [V]	< 2	
Short-circuit protection	yes (non-latching)	
Overload protection	yes	
Switching frequency [Hz]	75	
Analog output	I: 4...20 mA (Ineg: 20...4 mA)	
Max. load [Ω]	I / Ineg: max. (U _b - 10 V) x 50	

Measuring / setting range

Measuring range	-0.05...1 bar	-0.72...14.5 psi
Setting range		
Set point, SP	-0.046...1.600 bar	-0.66...23.20 psi
Reset point, rP	-0.050...1.596 bar	-0.72...23.14 psi
Analog start point, ASP	-0.050...1.340 bar	-0.72...19.58 psi
Analog end point, AEP	0.200...1.600 bar	2.90...23.20 psi
in steps of	0.002 bar	0.02 psi

Accuracy / deviations

Accuracy / deviations (in % of the span) Turn down 1:1		
Switch point accuracy	< ± 0.5	
Characteristics deviation *)	< ± 0.25 (BFSL) / < ± 0.5 (LS)	
Hysteresis	< ± 0.25	
Repeatability **)	< ± 0.1	
Long-term stability ***)	< ± 0.1	
Temperature coefficients (TEMPCO) in the temperature range 0...70° C (in % of the span per 10 K)		
Greatest TEMPCO of the zero point	< ± 0.2	
Greatest TEMPCO of the span	< ± 0.2	

Reaction times

Power-on delay time [s]	6	
Min. response time switching output [ms]	9	
Damping for the switching output (dAP) [s]	0.01...30	
Damping for the analog output (dAA) [s]	0.01...30	
Step response time analogue output [ms]	28	
Integrated watchdog	yes	

Environment

Ambient temperature [°C]	-20...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

PG2457

PG-001-REB12-MFRKG/US/ /P

Pressure sensors

	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]		103

Mechanical data

Process connection	G ½	
Materials (wetted parts)	ceramics (Al ₂ O ₃); FPM; stainless steel 316L / 1.4404	
Housing materials	stainless steel 316L / 1.4404; PA; FPM (Viton); PTFE; viewing glass: laminated safety glass 4 mm	
Switching cycles min.	100 million	
Weight [kg]	0.608	

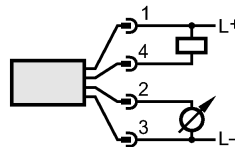
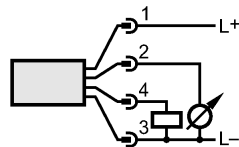
Displays / operating elements

Display	Display unit	2 x LED green
	Switching status	LED yellow
	Switch points	LED ring
	Function display	4-digit alphanumeric display
	Measured values	analog display, 4-digit alphanumeric display
Extended display range (max.)	1.6 bar	23.2 psi

Electrical connection

Connection	M12 connector; gold-plated contacts
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Wiring



Remarks

Remarks	<p>*) BFSL = Best Fit Straight Line switch point accuracy in the extended display range: 1.5 % of the span **) with temperature fluctuations < 10 K ***) in% of the span / 6 months</p>
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Pack quantity [piece]	1
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