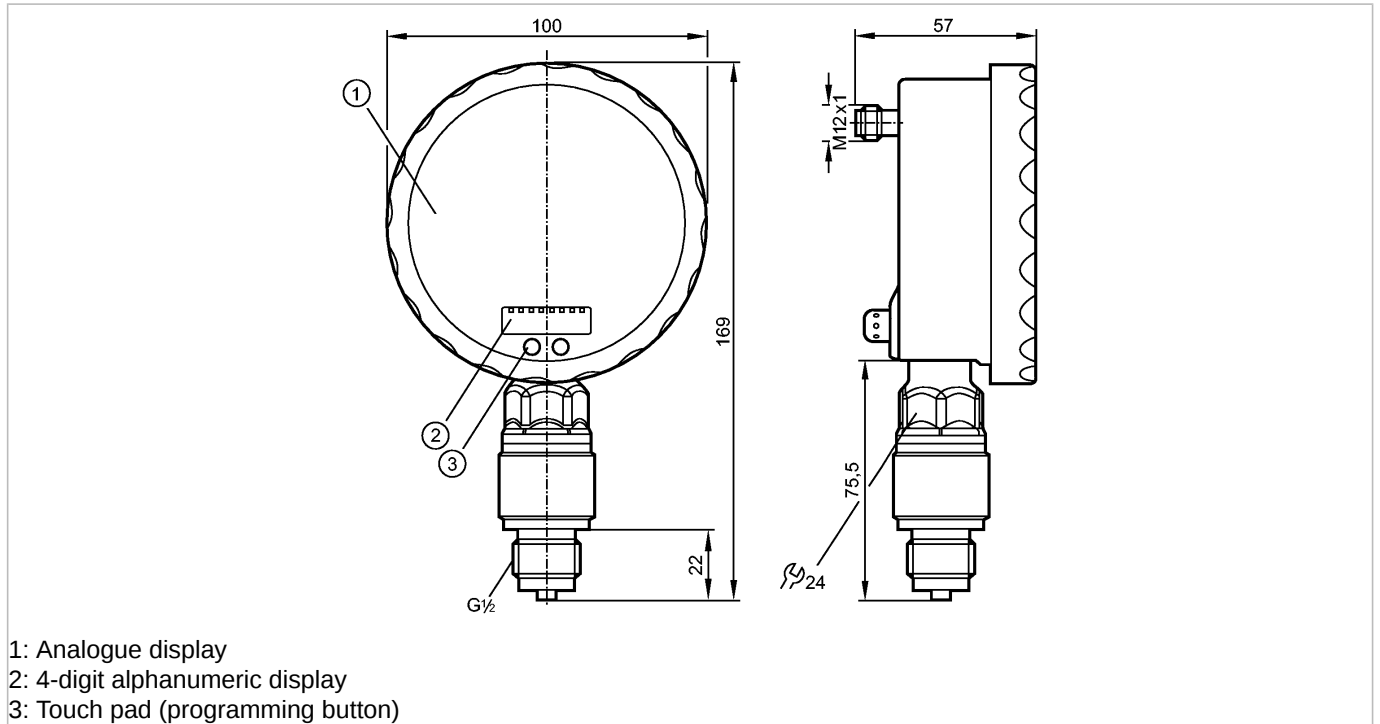


**PG2451**

PG-250-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...250 bar / 0...3625 psi

**Application**

Application	Type of pressure: relative pressure Liquids and gases Use in gases at pressures > 25 bar only after contacting the manufacturer ifm	
Pressure rating	600 bar	8700 psi
Bursting pressure min.	1000 bar	14500 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**

**PG2451**

PG-250-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 <sub>b</sub> - 10 V) x 50	

**Measuring / setting range**

Measuring range	0...250 bar	0...3625 psi
Setting range		
Set point, SP	1.0...400.0 bar	15...5800 psi
Reset point, rP	0.0...399.0 bar	0...5785 psi
Analog start point, ASP	0.0...350.0 bar	0...5075 psi
Analog end point, AEP	50.0...400.0 bar	725...5800 psi
in steps of	0.5 bar	5 psi

**Accuracy / deviations**

Accuracy / deviations (in % of the span) Turn down 1:1		
Switch point accuracy	< ± 0.6	
Characteristics deviation *)	< ± 0.35 (BFSL) / < ± 0.6 (LS)	
Hysteresis	< ± 0.5	
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	< ± 0.3	
Greatest TEMPCO of the span	< ± 0.3	

**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

**PG2451**

PG-250-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]		100

**Mechanical data**

Process connection	G ½	
Materials (wetted parts)	ceramics (Al <sub>2</sub> O <sub>3</sub> ); 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]	0.613	

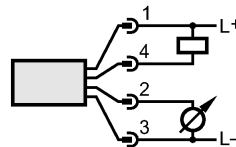
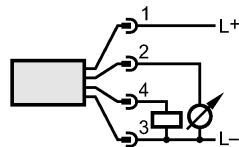
**Displays / operating elements**

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.)	400 bar	5800 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 &lt; 10 K                  ***) in% of the span / 6 months</p>
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Pack quantity [piece]	1
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