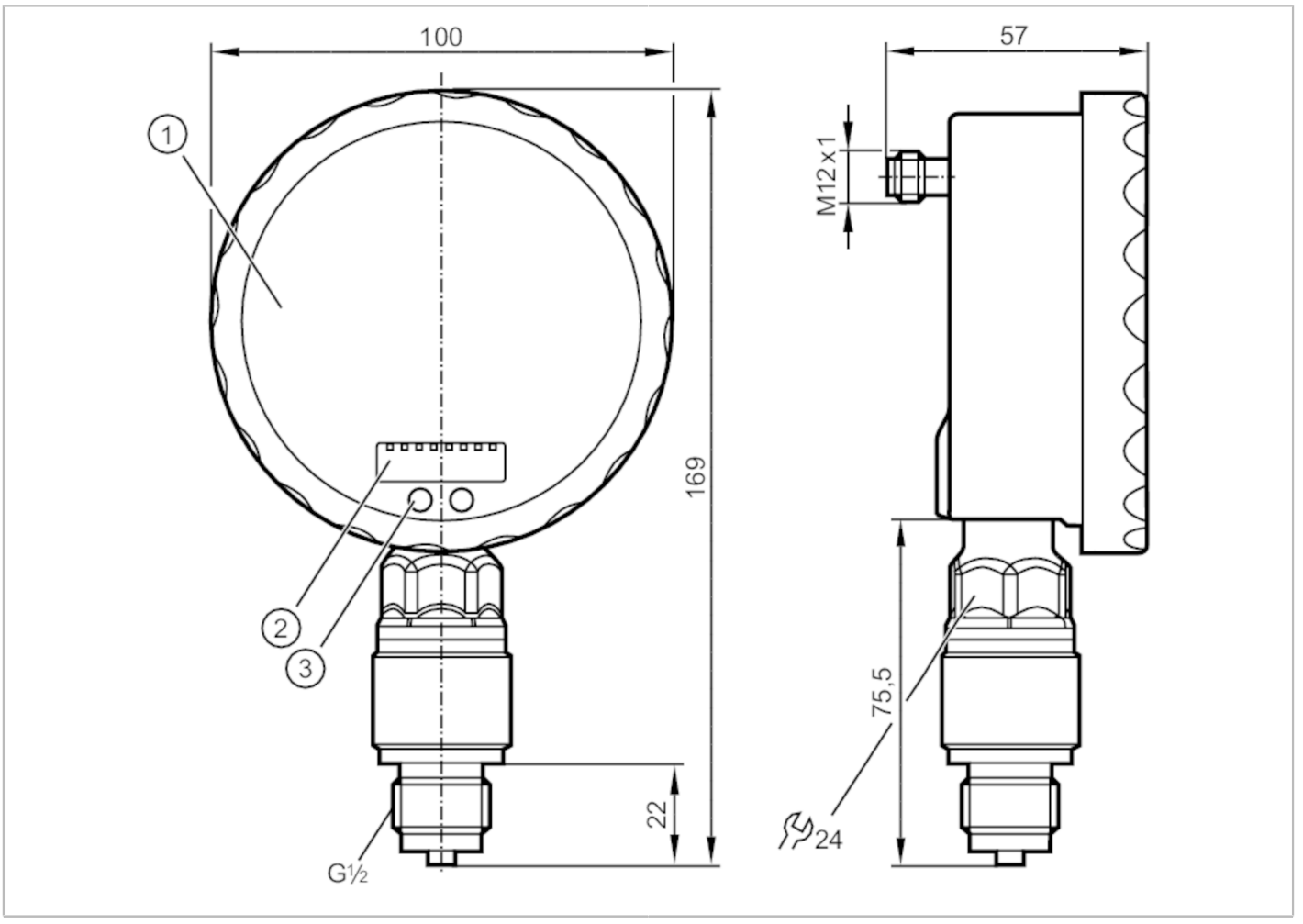
PG2451

Pressure sensor with analogue display

PG-250-REB12-MFRKG/US/ /P



Product characteristics			
Number of inputs and outputs		Number of digital outputs: 1; Number of analogue outputs: 1	
Measuring range		0...250 bar	0...3625 psi
Process connection		threaded connection G 1/2 external thread	
Application			
Special feature		Gold-plated contacts	
Application		for industrial applications	
Media		liquids and gases	
Conditionally suitable for		use in gases at pressures > 25 bar only on request	
Medium temperature	[°C]	-25...80	
Min. bursting pressure		1000 bar	14500 psi
Pressure rating		600 bar	8700 psi
Type of pressure		relative pressure	

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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]	75	
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		0...250 bar	0...3625 psi
Set point SP		1...400 bar	15...5800 psi
Reset point rP		0...399 bar	0...5785 psi
Analogue start point		0...350 bar	0...5075 psi
Analogue end point		50...400 bar	725...5800 psi
In steps of		0.5 bar	5 psi
Accuracy / deviations			
Switch point accuracy	[% of the span]	< ± 0,6; (Turn down 1:1)	
Repeatability	[% of the span]	< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)	
Characteristics deviation	[% of the span]	< ± 0,35 (BFSL) / < ± 0,6 (LS); (Turn down 1:1; BFSL = Best Fit Straight Line)	
Hysteresis deviation	[% of the span]	< ± 0,5; (Turn down 1:1)	
Long-term stability		< ± 0,1; (Turn down 1:1; per 6 months)	

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[% of the span]			
Temperature coefficient zero point [% of the span / 10 K]		< ± 0,3; (0...70 °C)	
Temperature coefficient span [% of the span / 10 K]		< ± 0,3; (0...70 °C)	
Response times			
Response time	[ms]	< 9	
Damping process value dAP	[s]	0.01...30	
Damping for the analogue output dAA	[s]	0.01...30	
Step response time analogue output	[ms]	28	
Operating conditions			
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
		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	
Pressure Equipment Directive		Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	
Mechanical data			
Weight	[g]	611.5	
Materials		stainless steel (1.4404 / 316L); PA; FKM; PTFE; viewing glass: laminated safety glass 4 mm	
Materials (wetted parts)		Al2O3 (ceramics); FKM; stainless steel (1.4404 / 316L)	
Min. pressure cycles		100 million	
Process connection		threaded connection G 1/2 external thread	
Restrictor element integrated		yes	
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.)		400 bar	5800 psi

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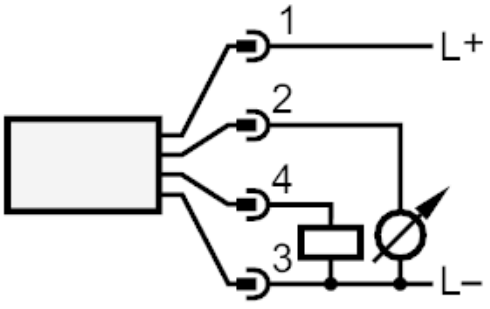
Remarks	
Remarks	switch point accuracy in the extended display range: 1.5 % of the span
Pack quantity	1 pcs.

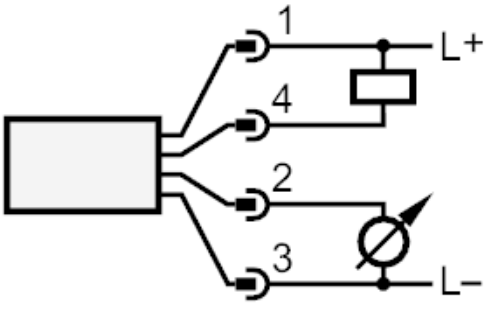
Electrical connection

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



Connection





OUT1	switching output
OUT2	analogue output