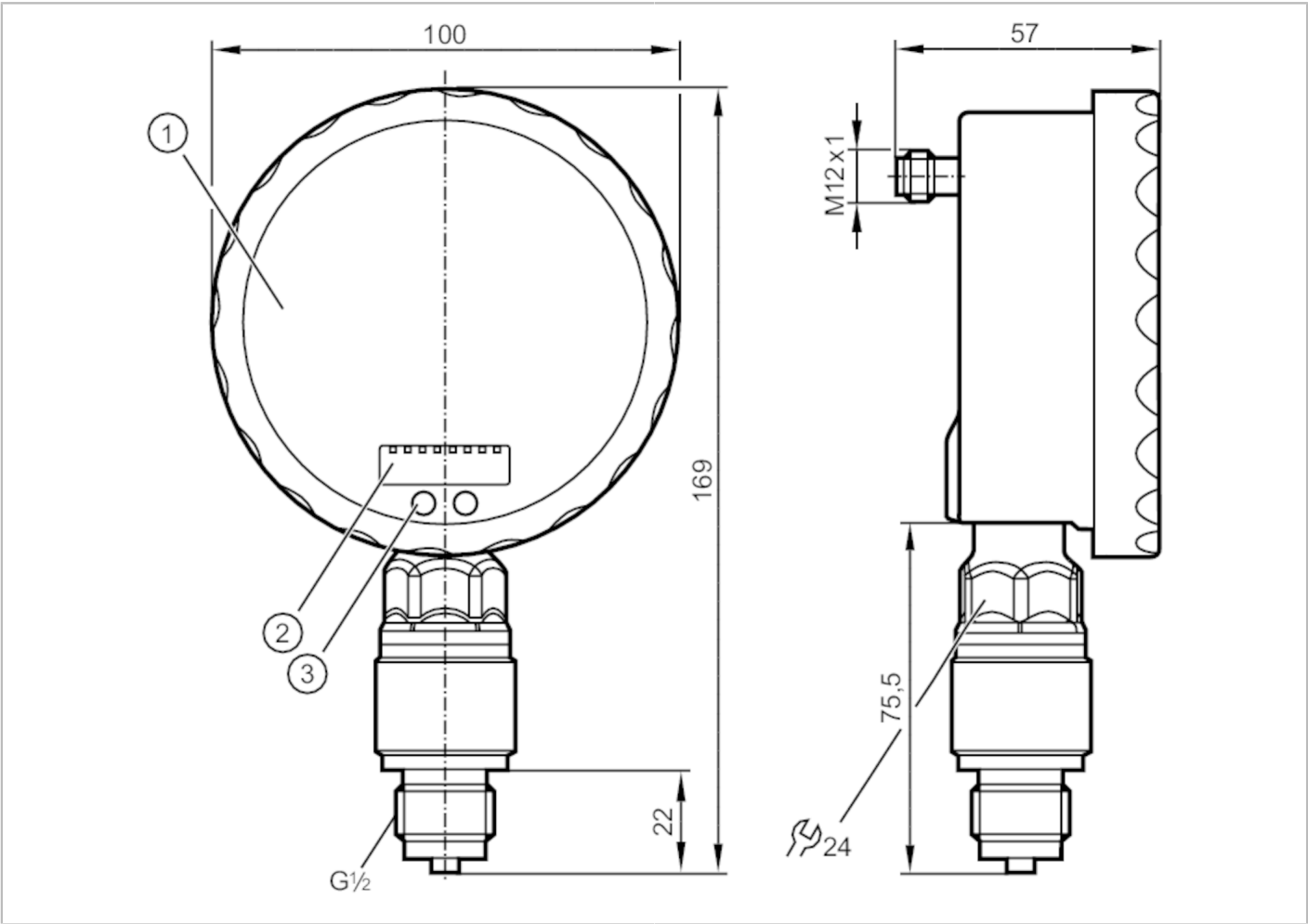


PG2451



Pressure sensor with analog display

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



Product characteristics		
Number of inputs and outputs	Number of digital outputs: 1; Number of analog outputs: 1	
Measuring range	0...250 bar	0...3625 psi
Process connection	threaded connection G 1/2 external thread	
Application		
System	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 analog outputs: 1
Outputs		
Total number of outputs		2
Output signal		switching signal; analog signal; (configurable)
Electrical design		PNP/NPN
Number of digital outputs		1
Output function		normally open / closed; (configurable)
Max. voltage drop switching output DC	[V]	2
Permanent current rating of switching output DC	[mA]	250
Switching frequency DC	[Hz]	75
Number of analog outputs		1
Analog current output	[mA]	4...20, invertible; (scalable)
Max. load	[Ω]	(U _b - 10 V) / 20 mA
Short-circuit protection		yes
Type of short-circuit protection		yes (non-latching)
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
Analog start point	0...350 bar	0...5075 psi
Analog 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		< ± 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		< ± 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		< ± 0,3; (0...70 °C)
[% of the span / 10 K]		
Temperature coefficient span		< ± 0,3; (0...70 °C)
[% of the span / 10 K]		
Reaction times		
Response time	[ms]	< 9
Damping process value dAP	[s]	0.01...30
Damping for the analog output dAA	[s]	0.01...30
Step response time analog 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
Material	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	analog 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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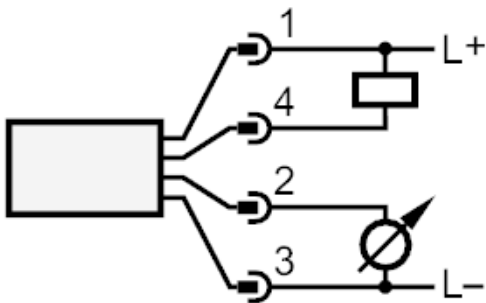
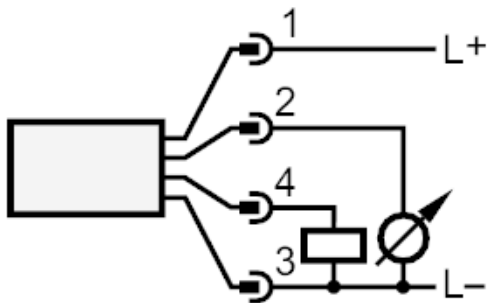
Remarks	
Remarks	switch point accuracy in the extended display range: 1.5 % of the span
Pack quantity	1 pcs.

Electrical connection

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



Connection



OUT1	Switching output
OUT2	analog output