

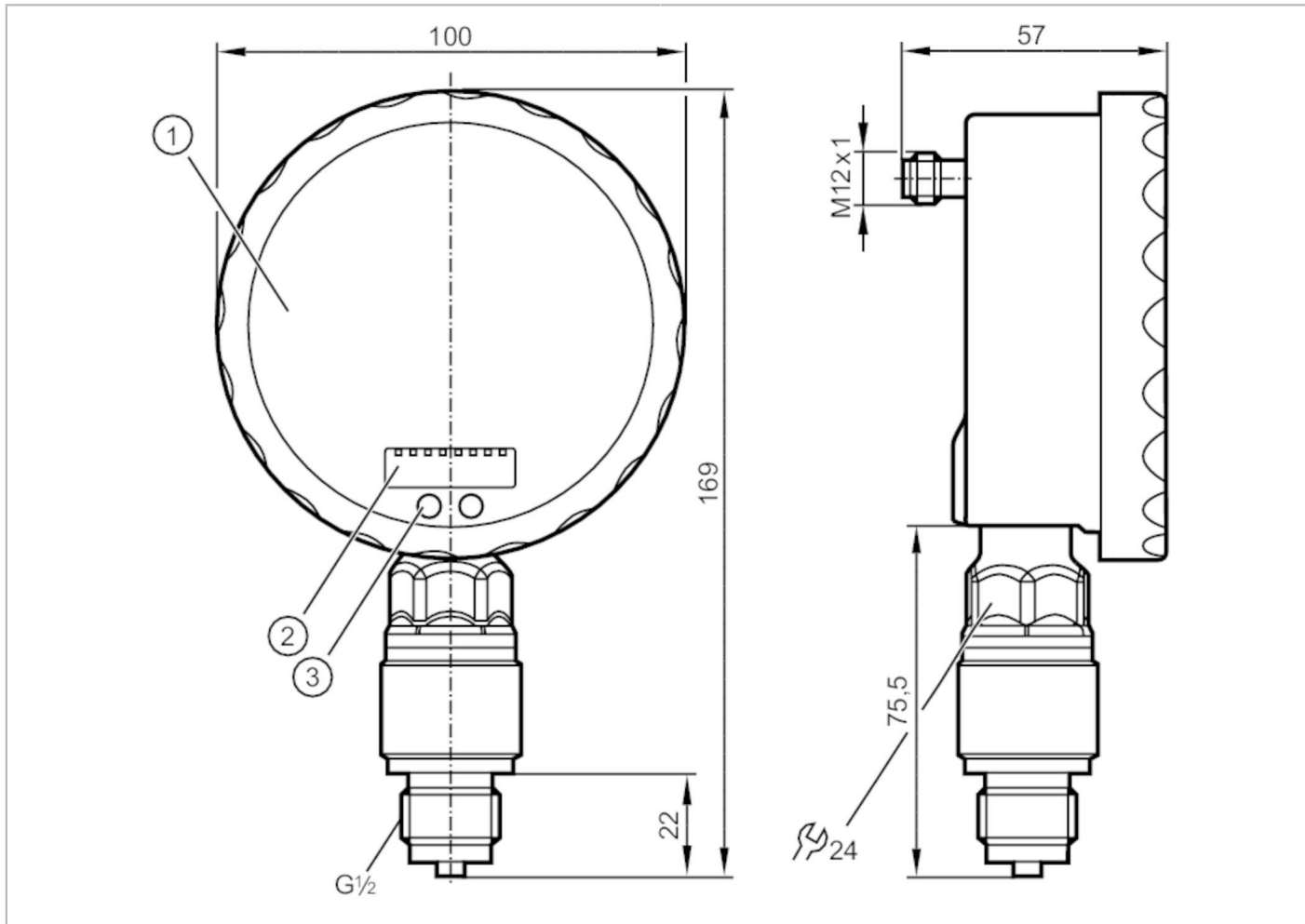
# PG2451



## Pressure sensor with analog display

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

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



### 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	

### Electrical data

Operating voltage [V]	18...32 DC	
Current consumption [mA]	< 70; (24 V)	

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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
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### 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] ( $U_b - 10\text{ V}$ ) / 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	[% 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	[% of the span]	< ± 0,1; (Turn down 1:1; per 6 months)
Temperature coefficient zero point	[% of the span / 10 K]	< ± 0,3; (0...70 °C)
Temperature coefficient span		< ± 0,3; (0...70 °C)

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[% 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]	563
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
With scale	Measured values	alphanumeric display, red 4-digit
		yes
Extended display range (max.)	400 bar	5800 psi
Remarks		
Remarks		switch point accuracy in the extended display range: 1.5 % of the span
Pack quantity		1 pcs.

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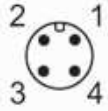


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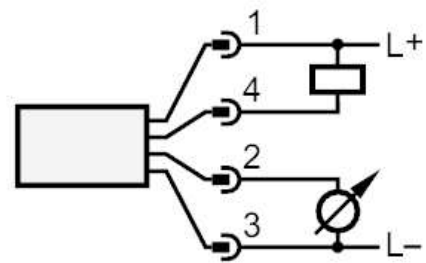
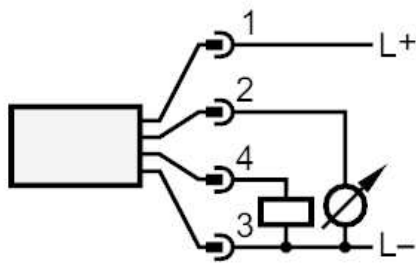
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### Electrical connection

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



### Connection



OUT1  
OUT2

Switching output  
analog output