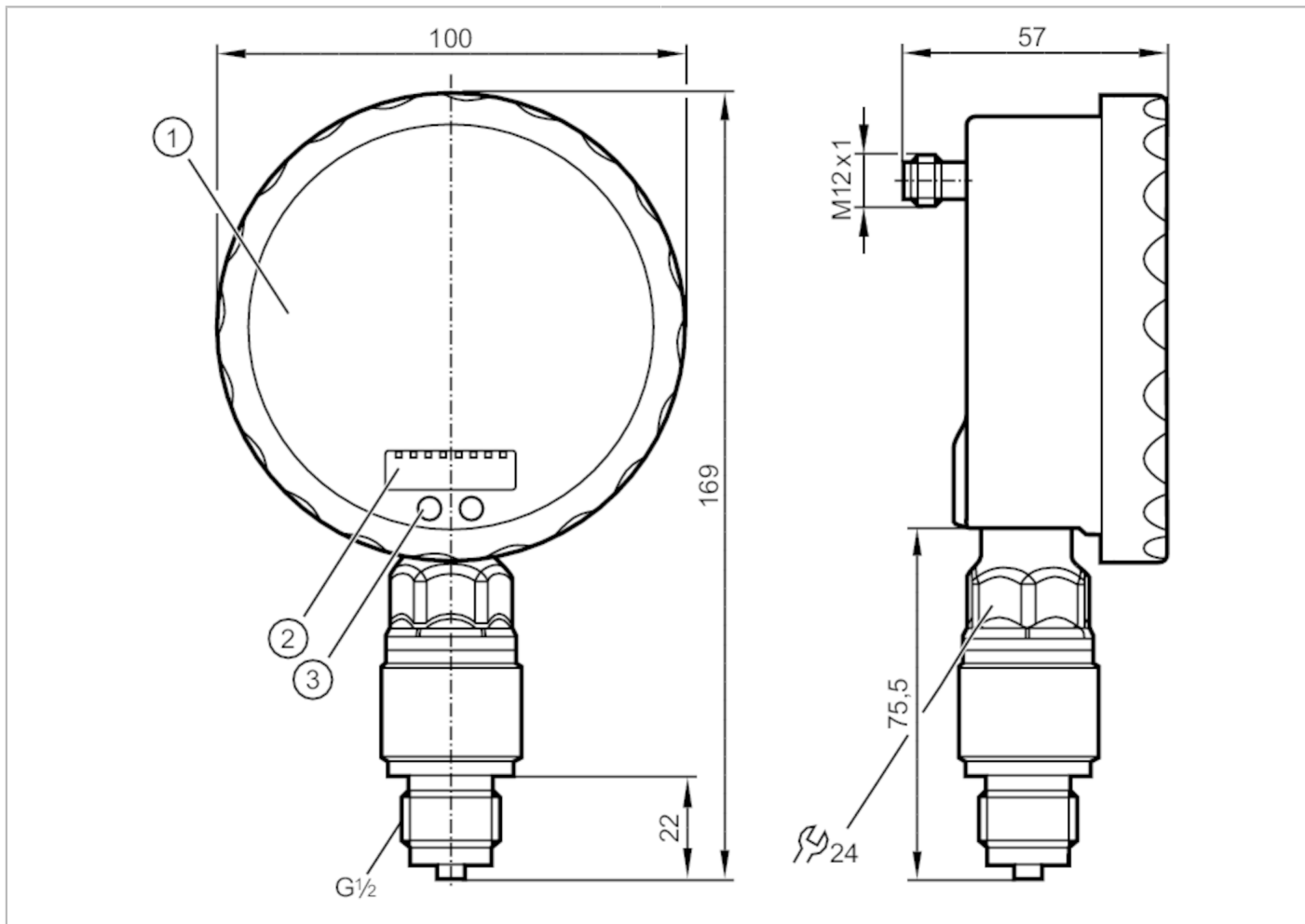


# PG2452



## Pressure sensor with analogue display

PG-100-REB12-MFRKG/US/ /P



### Product characteristics

Output signal	switching signal; analogue signal; (configurable)	
Measuring range	0...100 bar	0...1449 psi
Process connection	threaded connection G 1/2 external thread	

### Application

Special feature	Gold-plated contacts	
Application	for industrial applications; Safety manometer (S) based on DIN EN 837-1	
Media	liquids and gases	
Conditionally suitable for	use in gases at pressures > 25 bar only on request	
Medium temperature [°C]	-25...80	
Pressure rating	300 bar	4350 psi
Min. bursting pressure	700 bar	9400 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]	(U <sub>b</sub> - 10 V) / 20 mA
Short-circuit protection		yes
Type of short-circuit protection		pulsed
Overload protection		yes
Measuring/setting range		
Measuring range	0...100 bar	0...1449 psi
Set point SP	0.4...160 bar	6...2322 psi
Reset point rP	0...159.6 bar	0...2316 psi
Analogue start point	0...135 bar	0...1959 psi
Analogue end point	25...160 bar	363...2322 psi
In steps of	0.2 bar	3 psi
Accuracy / deviations		
Switch point accuracy		< ± 0,5; (Turn down 1:1)
	[% of the span]	
Repeatability		< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)
	[% of the span]	
Characteristics deviation		< ± 0,25 (BFSL) / < ± 0,5 (LS); (Turn down 1:1; BFSL = Best Fit Straight Line)
	[% of the span]	
Hysteresis deviation		< ± 0,25; (Turn down 1:1)
	[% of the span]	
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]	< ± 0,2; (0...70 °C)
Temperature coefficient span	[% of the span / 10 K]	< ± 0,2; (0...70 °C)

### Response times

Response time	[ms]	< 9
Damping for the switching output 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]	609
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		no (can be retrofitted)

### 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.)	160 bar	2322 psi

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### Remarks

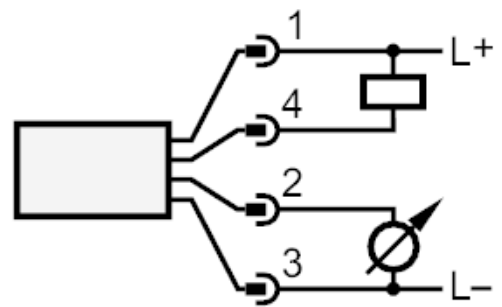
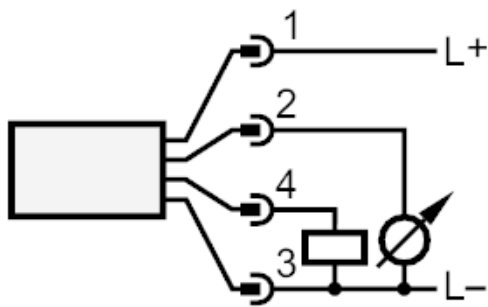
Remarks	switch point accuracy in the extended display range: 1.5 % of the span
Pack quantity	1 pcs.

### Electrical connection

Connector: 1 x M12; Contacts: gold-plated



### Connection



OUT1	switching output
OUT2	analogue output