

PG2451



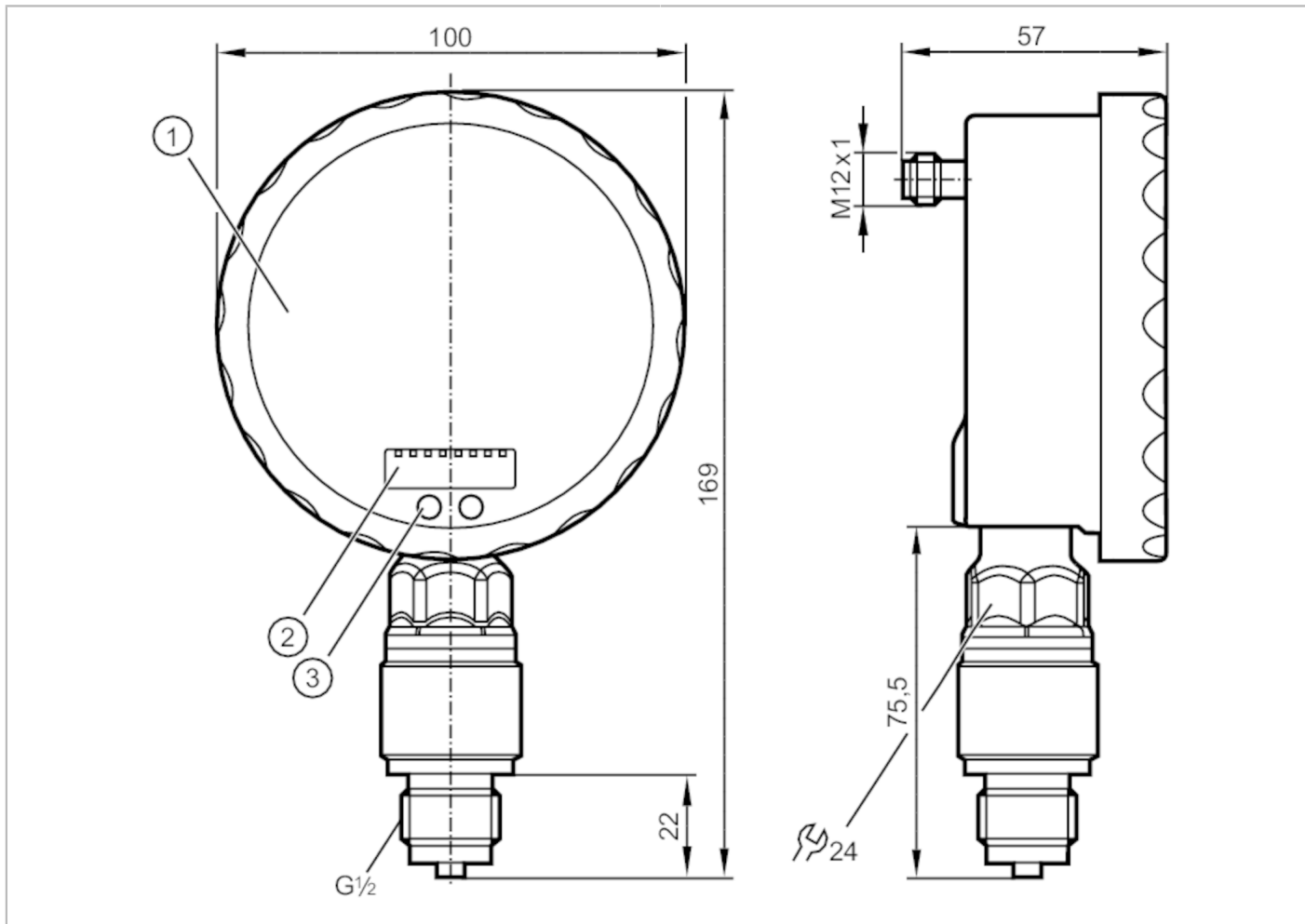
Pressure sensor with analog display

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

Article to be discontinued

Alternative articles: PG1401

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

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. burst pressure	1000 bar	14500 psi	100 MPa
Pressure rating	600 bar	8700 psi	60 MPa
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 [% 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)	

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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)

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 EN 60068-2-27
Vibration resistance	DIN EN 60068-2-6	10 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
Dimensions [mm]	169 x 100 x 57
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

Remarks	
Remarks	switch point accuracy in the extended display range: 1.5 % of the span

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Pack quantity

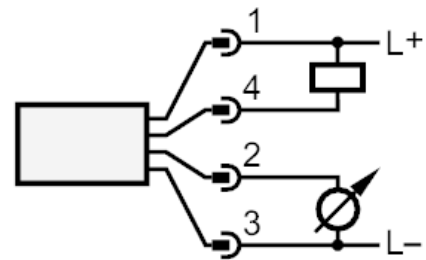
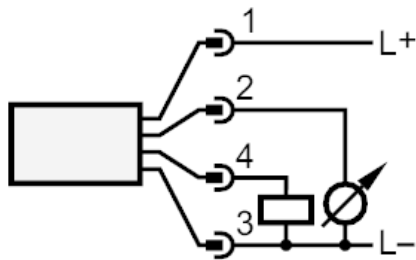
1 pcs.

Electrical connection

Connector: 1 x M12; coding: A; Contacts: 4, gold-plated



Connection



OUT1
OUT2

Switching output
analog output