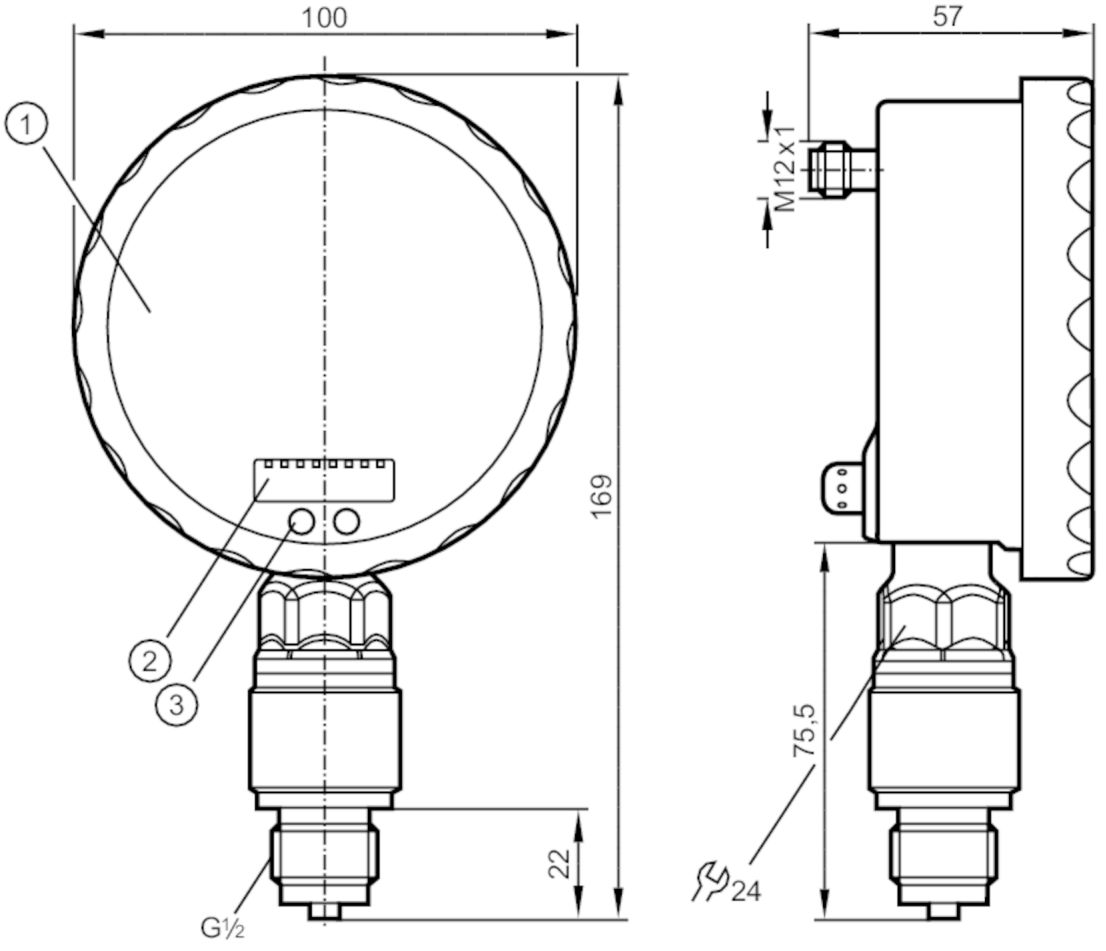
PG2454

Pressure sensor with analog display

PG-010-REB12-MFRKG/US/ /P

Article to be discontinued

Alternative articles: PG1404
When selecting an alternative article and accessories please note that technical data may differ!



1 analog display
2 alphanumeric display 4-digit
3 Touch pad (programming button)

Product characteristics			
Number of inputs and outputs	Number of digital outputs: 1; Number of analog outputs: 1		
Measuring range	-1...10 bar	-14.4...145 psi	
Process connection	threaded connection G 1/2 external thread		
Application			
System	gold-plated contacts		
Application	for industrial applications		
Media	liquids and gases		
Medium temperature [°C]	-25...80		
Min. burst pressure	150 bar	2175 psi	15 MPa
Pressure rating	50 bar	725 psi	5 MPa
Type of pressure	relative pressure; vacuum		

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MAWP (for applications according to CRN)		38 bar	551 psi
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]	(Ub - 10 V) / 20 mA	
Short-circuit protection		yes	
Type of short-circuit protection		yes (non-latching)	
Overload protection		yes	
Measuring/setting range			
Measuring range		-1...10 bar	-14.4...145 psi
Set point SP		-0.96...16 bar	-14...232 psi
Reset point rP		-1...15.96 bar	-14.4...231.6 psi
Analog start point		-1...13.5 bar	-14.4...195.8 psi
Analog end point		1.5...16 bar	21.8...232 psi
In steps of		0.02 bar	0.2 psi
Accuracy / deviations			
Switch point accuracy	[% of the span]	< ± 0,5; (Turn down 1:1)	
Repeatability	[% of the span]	< ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1)	
Characteristics deviation	[% of the span]	< ± 0,25 (BFSL) / < ± 0,5 (LS); (Turn down 1:1; BFSL = Best Fit Straight Line)	
Hysteresis deviation	[% of the span]	< ± 0,25; (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]		< ± 0,2; (0...70 °C)	
Temperature coefficient span [% of the span / 10 K]		< ± 0,2; (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		DIN EN 61000-6-2	
		DIN EN 61000-6-3	
Shock resistance		DIN EN 60068-2-27	50 g (11 ms)
Vibration resistance		DIN EN 60068-2-6	10 g (10...2000 Hz)
MTTF	[years]	103	
Pressure equipment directive		sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	
Mechanical data			
Weight	[g]	565.1	
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		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	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.)		16 bar	232 psi
Remarks			
Remarks		switch point accuracy in the extended display range: 1.5 % of the span	
Pack quantity		1 pcs.	

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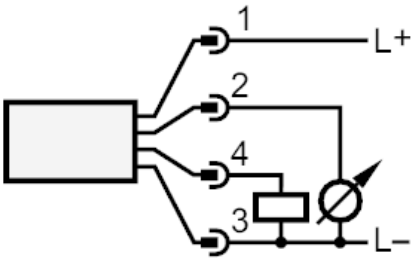
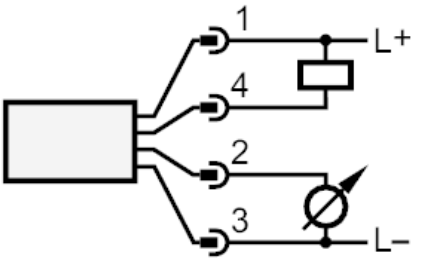
Electrical connection

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

Connection





OUT1	Switching output
OUT2	analog output