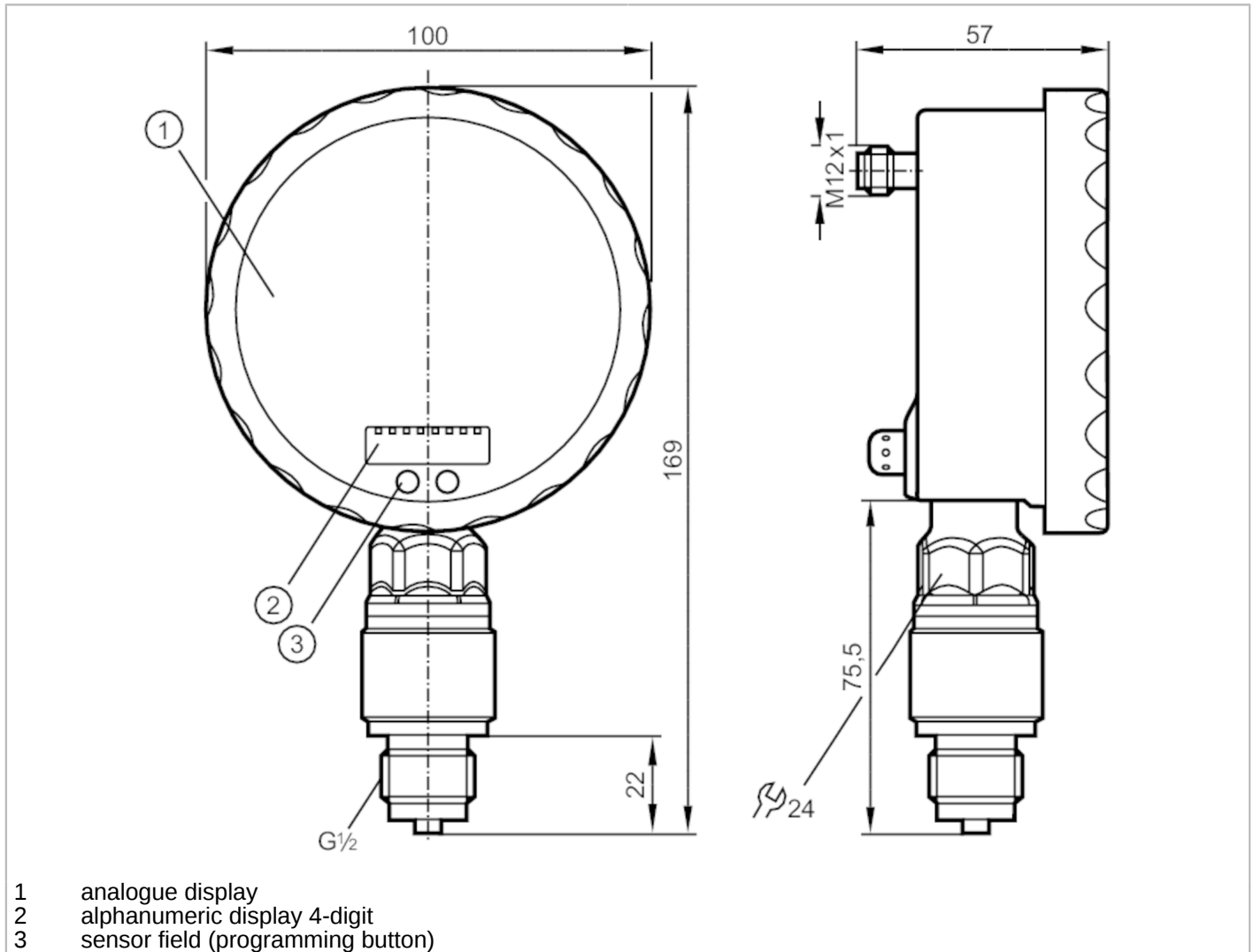


PG2454



Pressure sensor with analogue display

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



Product characteristics

Output signal	switching signal; analogue signal; (configurable)	
Measuring range	-1...10 bar	-14.4...145 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	
Medium temperature [°C]	-25...80	
Pressure rating	50 bar	725 psi
Min. bursting pressure	150 bar	2175 psi
Type of pressure	relative pressure; vacuum	
MAWP (for applications according to CRN)	38 bar	551 psi



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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 _b - 10 V) / 20 mA
Short-circuit protection		yes
Type of short-circuit protection		pulsed
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
Analogue start point		-1...13.5 bar -14.4...195.8 psi
Analogue end point		1.5...16 bar 21.8...232 psi
In steps of		0.02 bar 0.2 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		< ± 0,2; (0...70 °C)
	[% of the span / 10 K]	
Temperature coefficient span		< ± 0,2; (0...70 °C)
	[% of the span / 10 K]	

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	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	20 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]	608
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.)	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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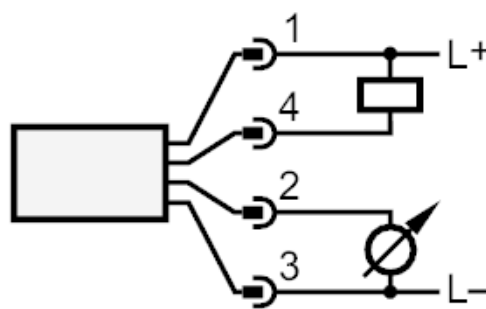
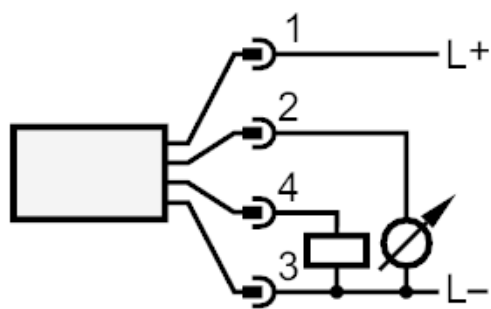
PG-010-REB12-MFRKG/US/ /P

Electrical connection

Connector: 1 x M12; Contacts: gold-plated



Connection



OUT1 switching output
OUT2 analogue output