

PG2454



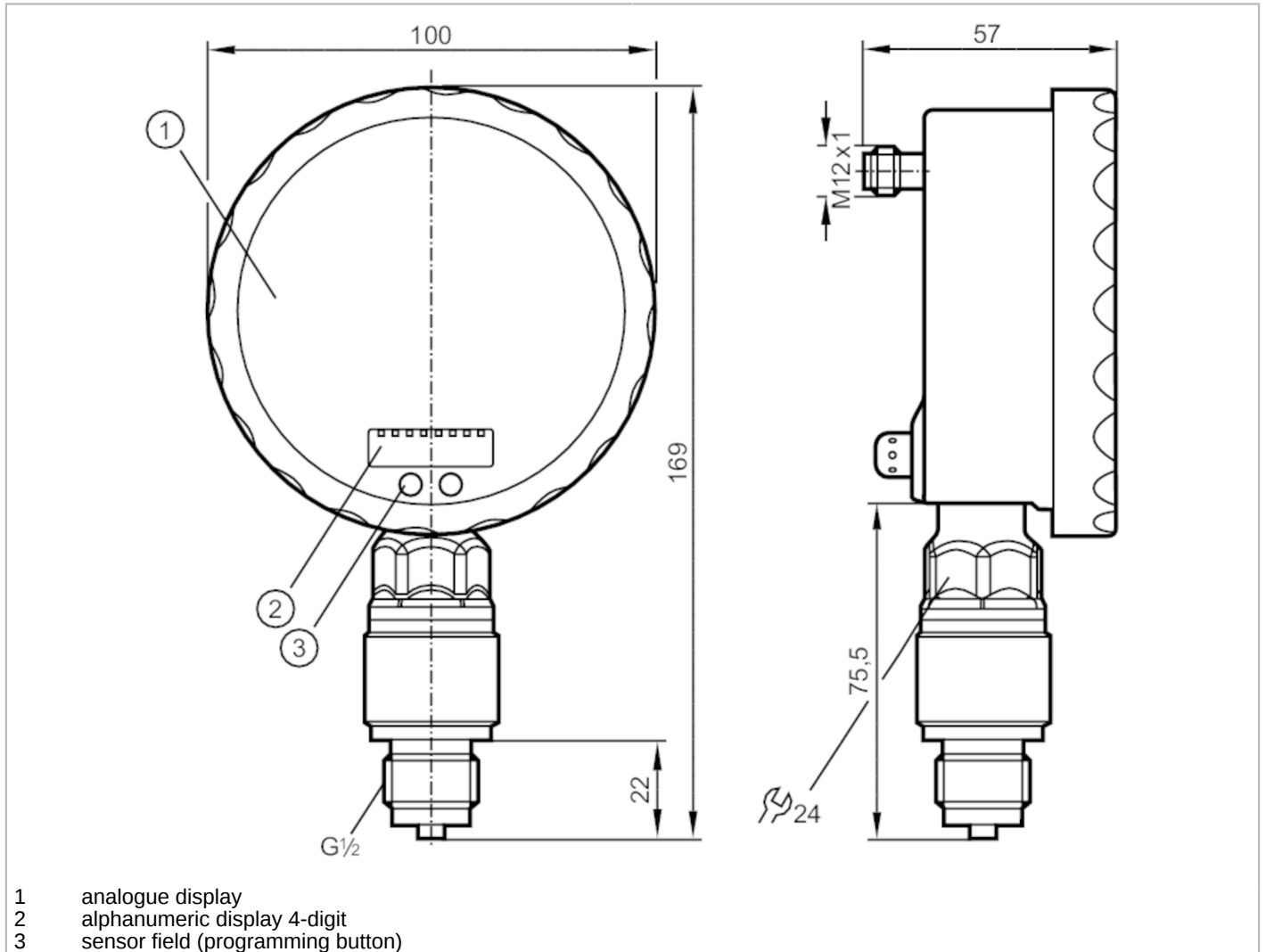
Pressure sensor with analogue display

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

phase-out article

Alternative articles: PG1404

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 analogue outputs: 1		
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		
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
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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	
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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 [% 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)

Response times

Response time	[ms]	< 9
Damping process value 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	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
Materials	stainless steel (316L/1.4404); PA; FKM; PTFE; viewing glass: laminated safety glass 4 mm	
Materials (wetted parts)	Al2O3 (ceramics); FKM; stainless steel (316L/1.4404)	
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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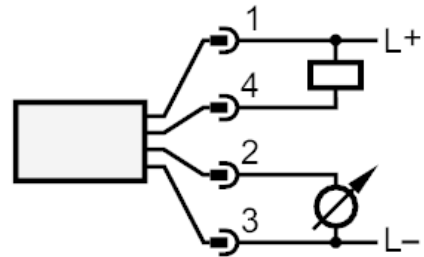
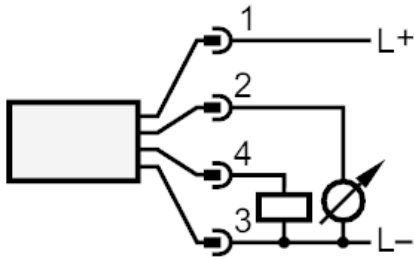
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Electrical connection

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



Connection



OUT1
OUT2

switching output
analogue output