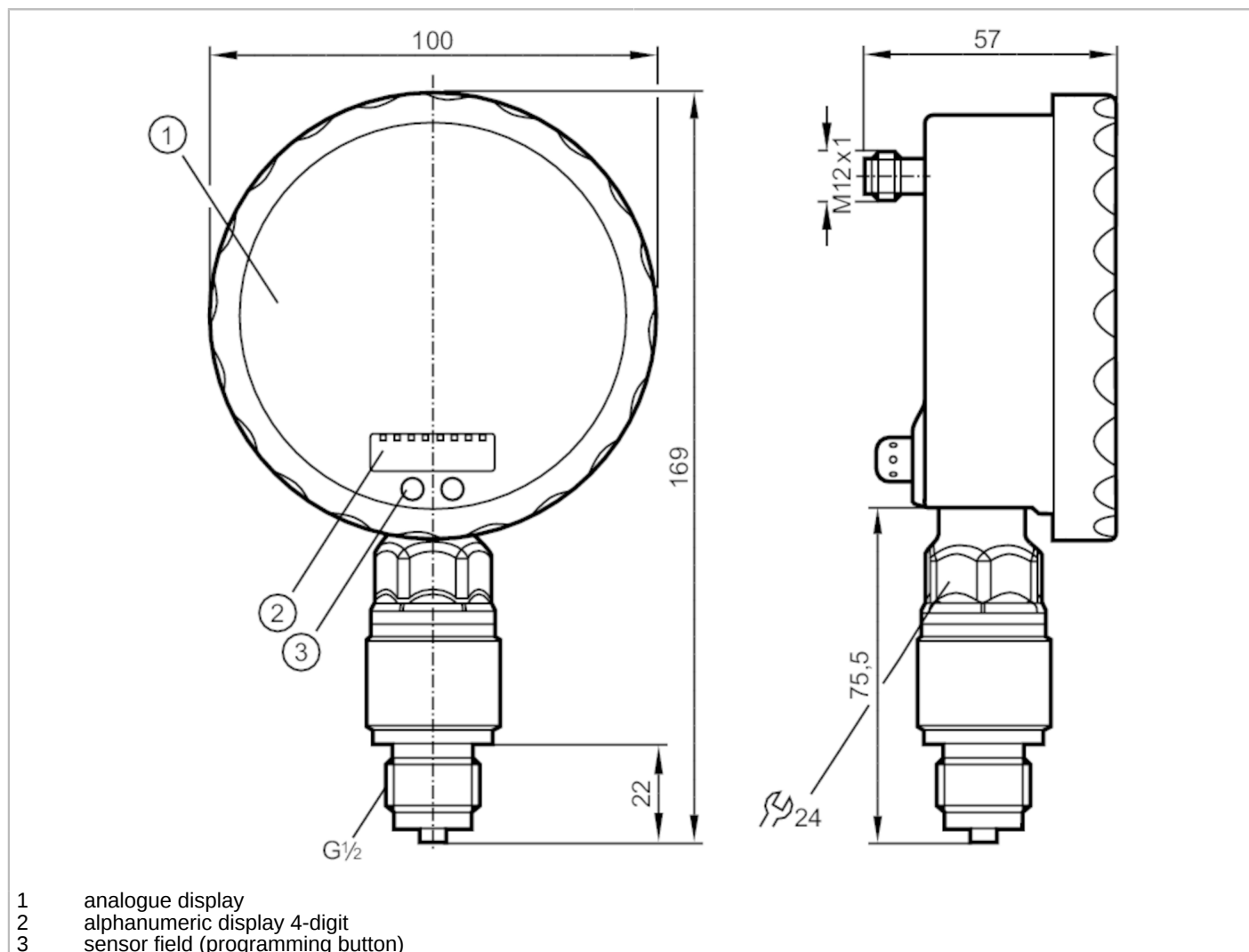


PG2455



Pressure sensor with analogue display

PG-005-REB12-MFRKG/US/ /P



Product characteristics

Number of inputs and outputs	Number of digital outputs: 1; Number of analogue outputs: 1	
Measuring range	-1...4 bar	-14.5...58 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. bursting pressure	100 bar	1450 psi
Min. bursting pressure [MPa]	10	
Pressure rating	30 bar	435 psi
Pressure rating [MPa]	3	
Type of pressure	relative pressure; vacuum	

Electrical data

Operating voltage [V]	18...32 DC
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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]	(Ub - 10 V) / 20 mA
Short-circuit protection	yes
Type of short-circuit protection	pulsed
Overload protection	yes

Measuring/setting range

Measuring range	-1...4 bar	-14.5...58 psi
Set point SP	-0.98...6.4 bar	-14.2...92.8 psi
Reset point rP	-1...6.38 bar	-14.5...92.5 psi
Analogue start point	-1...5.4 bar	-14.5...78.3 psi
Analogue end point	0...6.4 bar	0...92.8 psi
In steps of	0.01 bar	0.1 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	[% of the span]	< ± 0,1; (Turn down 1:1; per 6 months)
Temperature coefficient zero point	[% of the span / 10 K]	< ± 0,2; (0...70 °C)



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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	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]	103	
Pressure Equipment Directive	Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	
Mechanical data		
Weight [g]	567.4	
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.)	6.4 bar	92.8 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
OUT2

switching output
analogue output