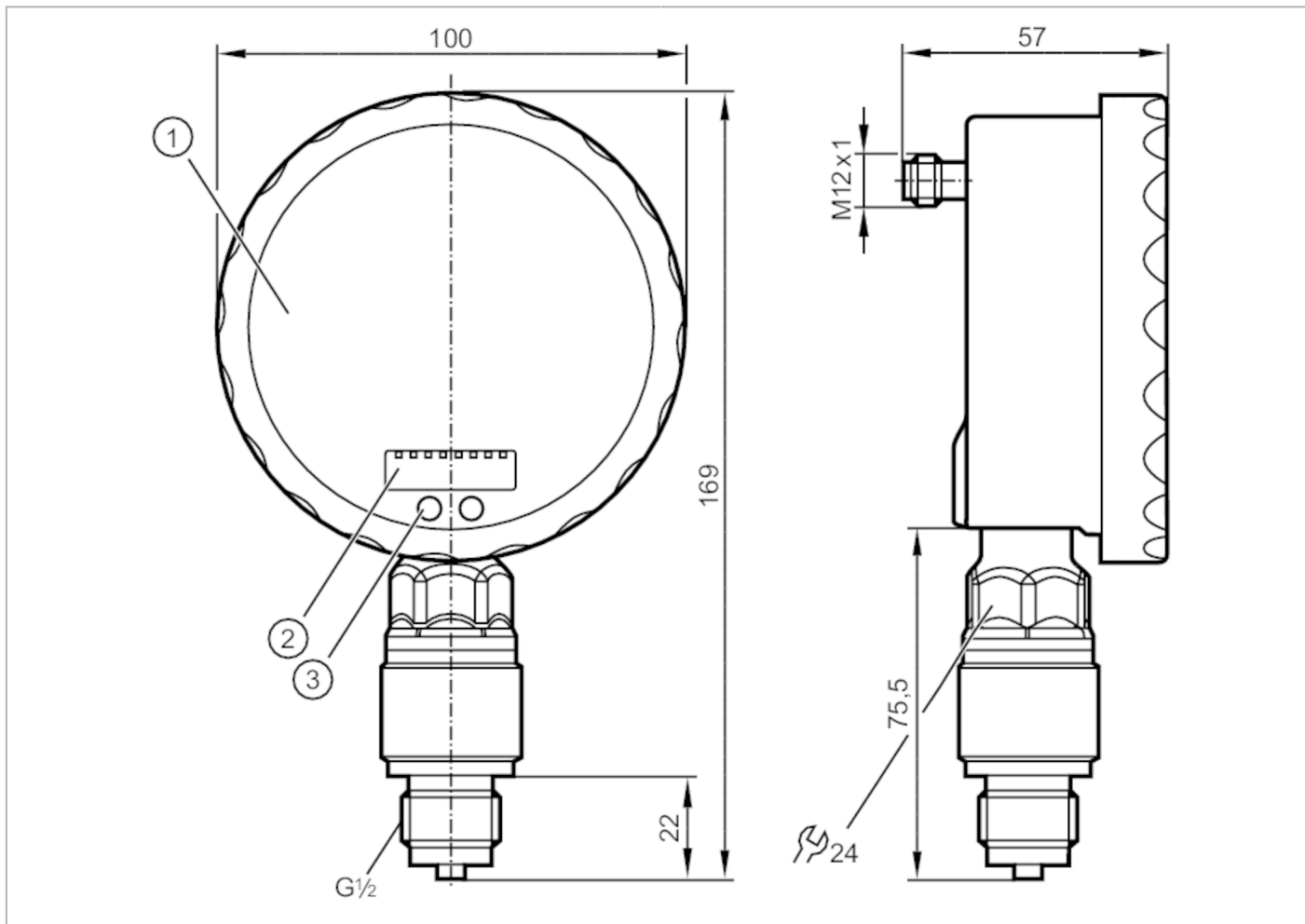


PG2430



Pressure sensor with analogue display

PG-400-REB12-MFRKG/US/ /P



Product characteristics

Number of inputs and outputs	Number of digital outputs: 1; Number of analogue outputs: 1	
Measuring range	0...400 bar	0...40 MPa
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	1200 bar	120 MPa
Pressure rating	800 bar	80 MPa
Type of pressure	relative pressure	

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	



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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	0...400 bar	0...40 MPa
Set point SP	2...600 bar	0.2...60 MPa
Reset point rP	0...598 bar	0...59.8 MPa
Analogue start point	0...500 bar	0...50 MPa
Analogue end point	100...600 bar	10...60 MPa
In steps of	1 bar	0.1 MPa

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)	
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)	

PG2430



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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
	CPA approval	accuracy class
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]	97
Pressure Equipment Directive		Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request
Mechanical data		
Weight	[g]	571.2
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		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	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.)	600 bar	60 MPa
Remarks		
Remarks		switch point accuracy in the extended display range: 1.5 % of the span
Pack quantity		1 pcs.

PG2430



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Electrical connection

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



Connection

