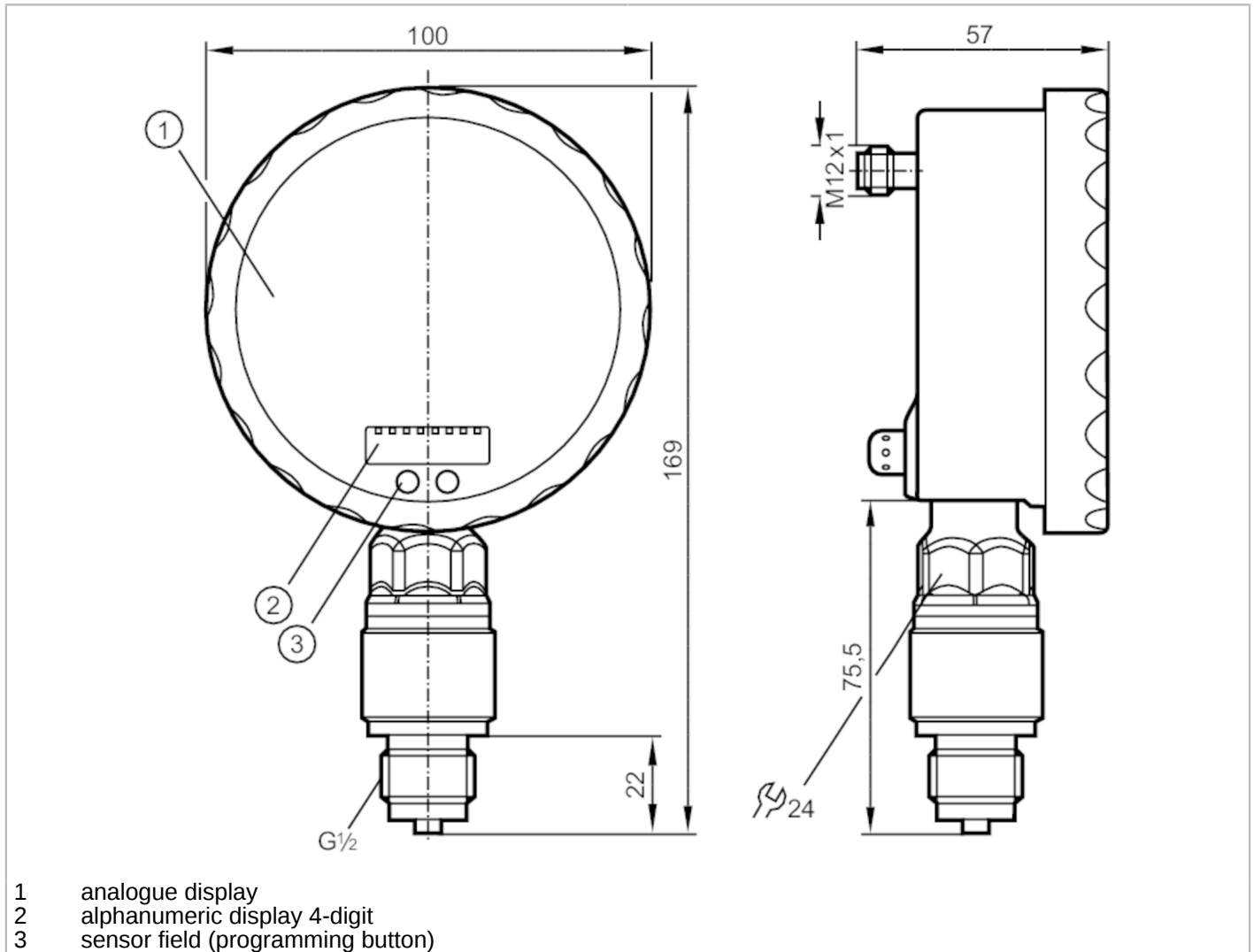


PG2409



Pressure sensor with analogue display

PG-1-1-REB12-MFRKG/US/ IP



Application	
Media	liquids and gases
Medium temperature [°C]	-25...80
Pressure rating	10 bar 145 psi
Min. bursting pressure	30 bar 435 psi
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
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



Pressure sensor with analogue display

PG-1-1-REB12-MFRKG/US/ /P

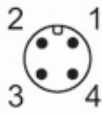
Outputs		
Total number of outputs		2
Output signal		switching signal; analogue signal; (configurable)
Electrical design		PNP/NPN
Number of digital outputs		1
Output function		normally open / normally closed; (parameterisable)
Max. voltage drop switching output DC	[V]	2
Permanent current rating of switching 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...1 bar -14.52...14.52 psi
Set point SP		-0.992...1.6 bar -14.4...23.22 psi
Reset point rP		-1...1.592 bar -14.52...23.1 psi
Analogue start point		-1...1.1 bar -14.52...15.96 psi
Analogue end point		-0.5...1.6 bar -7.26...23.22 psi
In steps of		0.004 bar 0.06 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)
	[% 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

PG2409



Pressure sensor with analogue display

PG-1-1-REB12-MFRKG/US/ /P

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
Mechanical data		
Weight	[g]	609.5
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	
Displays / operating elements		
Display	Display unit	2 x LED, green
	switching status	LED, yellow
	switch points	LED ring
	function display	alphanumeric display, 4-digit
	measured values	analogue display, 0...350° rotatable, pointer not visible when unit disconnected
	measured values	alphanumeric display, 4-digit
With scale	yes	
Extended display range (max.)	1.6 bar	23.22 psi
Remarks		
Remarks	switch point accuracy in the extended display range: 1.5 % of the span	
Pack quantity	1 pcs.	
Electrical connection		
Connector: 1 x M12; Contacts: gold-plated		
		

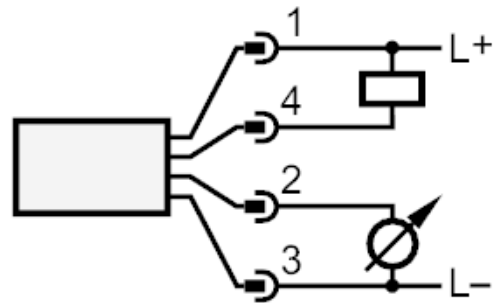
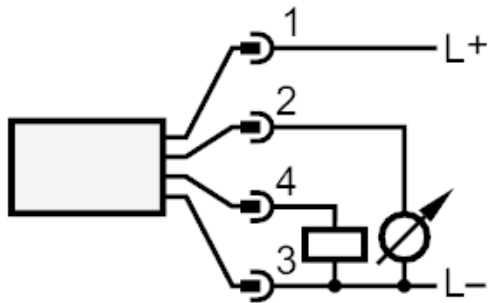
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PG-1-1-REB12-MFRKG/US/ IP

Connection



OUT1 switching output
OUT2 analogue output