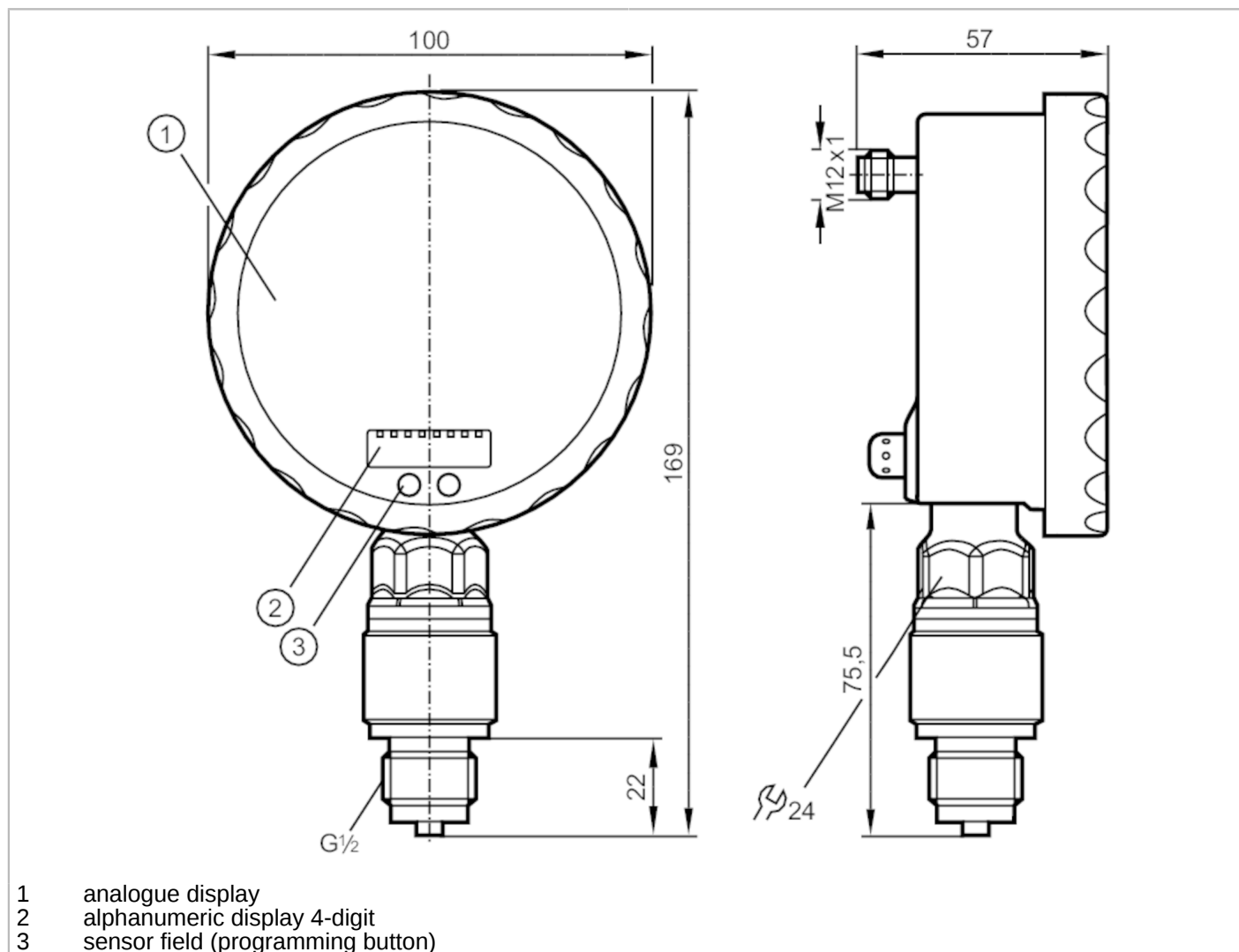


Pressure sensor with analogue display

PG-,10BREB12-MFRKG/US/ /P



Application		
Media	liquids and gases	
Medium temperature [°C]	-25...80	
Pressure rating	4000 mbar	1606 inH2O
Min. bursting pressure	30000 mbar	12044 inH2O
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	



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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	-5...100 mbar	-2...40.16 inH2O
Set point SP	-4.6...160 mbar	-1.84...64.24 inH2O
Reset point rP	-5...159.6 mbar	-2...64.08 inH2O
Analogue start point	-5...135 mbar	-2...54.24 inH2O
Analogue end point	20...160 mbar	8...64.24 inH2O
In steps of	0.2 mbar	0.08 inH2O
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)	
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	



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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]	608.6
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.)	160 mbar	64.24 inH2O
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		



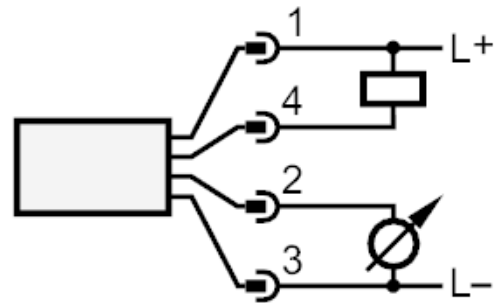
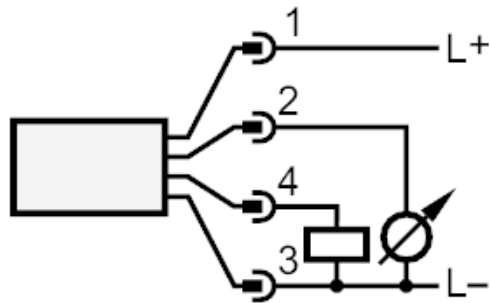
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Connection



OUT1	switching output
OUT2	analogue output