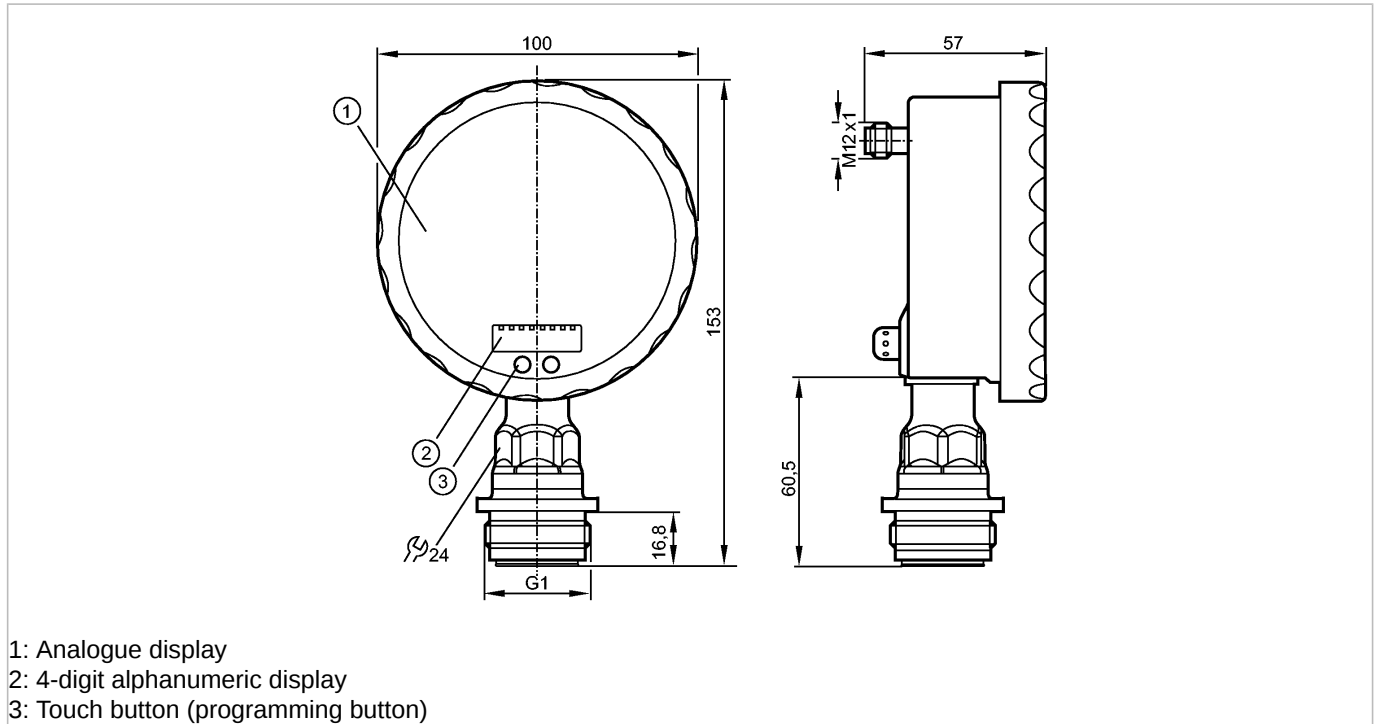


PG2799

PG-1-1BREA01-MFRKG/US/ /P

Pressure sensors



- 1: Analogue display
- 2: 4-digit alphanumeric display
- 3: Touch button (programming button)



Made in Germany

Product characteristics

Electronic pressure sensor with analogue display
Connector
Process connection: G 1 A / Aseptoflex Vario
Suitable for all standard CIP and SIP processes
Analogue display 0...350° rotatable
Resolution 0.25%
Pointer not visible when unit disconnected
2 outputs OUT1 = switching output OUT2 = analogue output
analogue display, 4-digit alphanumeric display
Measuring range: -1...1 bar / -14.5...14.5 psi

Application

Application	Type of pressure: relative pressure Hygienic systems, viscous media and liquids with suspended particles Liquids and gases	
Pressure rating	10 bar	145 psi
Bursting pressure min.	30 bar	435 psi
Medium temperature [°C]	-25...125 (145 max. 1h)	

Electrical data

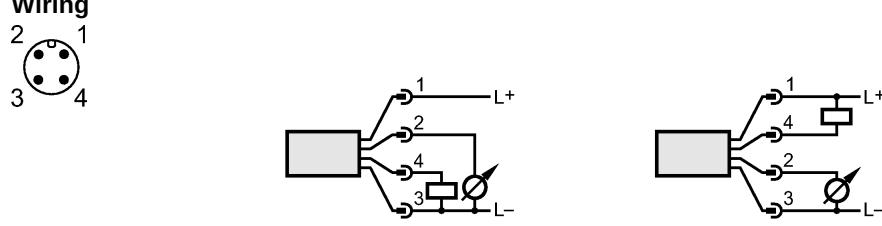
Electrical design	DC PNP/NPN
Operating voltage [V]	18...32 DC
Current consumption [mA]	< 70 (24 V)
Insulation resistance [MΩ]	> 100 (500 V DC)
Protection class	III
Reverse polarity protection	yes

Outputs		
Output	2 outputs OUT1 = switching output OUT2 = analogue output	
Output function	1 x normally open / closed programmable + 1 x analogue (4...20 / 20...4 mA, scalable)	
Current rating [mA]	250	
Voltage drop [V]	< 2	
Short-circuit protection	pulsed	
Overload protection	yes	
Switching frequency [Hz]	50	
Analogue output	I: 4...20 mA (Ineg: 20...4 mA)	
Max. load [Ω]	I / Ineg: max. (U _b - 10 V) x 50	
Measuring / setting range		
Measuring range	-1...1 bar	-14.5...14.5 psi
Setting range		
Set point, SP	-0.998...1.600 bar	-14.48...23.20 psi
Reset point, rP	-1.000...1.598 bar	-14.50...23.18 psi
Analogue start point, ASP	-1.000...1.100 bar	-14.50...15.96 psi
Analogue end point, AEP	-0.500...1.600 bar	-7.26...23.20 psi
in steps of	0.001 bar	0.02 psi
Accuracy / deviations		
Accuracy / deviations (in % of the span) Turn down 1:1		
Switch point accuracy	< ± 0.2	
Characteristics deviation *)	< ± 0.2	
Linearity	< ± 0.15	
Hysteresis	< ± 0.15	
Repeatability **)	< ± 0.1	
Long-term stability ***)	< ± 0.1	
Temperature coefficients (TEMPCO) in the temperature range 0...70° C (in % of the span per 10 K)		
Greatest TEMPCO of the zero point	< ± 0.05	
Greatest TEMPCO of the span	< ± 0.15	
Reaction times		
Power-on delay time [s]	6	
Min. response time switching output [ms]	10	
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]	25	
Integrated watchdog	yes	
Environment		
Ambient temperature [°C]	-25...80	
Storage temperature [°C]	-40...100	
Protection	IP 67 / IP 69K	

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Pressure sensors

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]	100
Mechanical data	
Process connection	G 1 A / Aseptoflex Vario
Materials (wetted parts)	ceramics (99.9 % Al ₂ O ₃); PTFE; stainless steel 316L / 1.4435; surface characteristics: Ra < 0.4 / Rz 4
Housing materials	stainless steel 316L / 1.4404; PA; FPM (Viton); PTFE; viewing glass: laminated safety glass 4 mm
Switching cycles min.	100 million
Weight [kg]	0.558
Displays / operating elements	
Display	Display unit 2 x LED green Switching status LED yellow Switch points LED ring Function display 4-digit alphanumeric display Measured values analogue display, 4-digit alphanumeric display
Extended display range (max.)	1.6 bar 23.2 psi
Electrical connection	
Connection	M12 connector; Gold-plated contacts
Wiring 	
Remarks	
Remarks	*) linearity, incl. hysteresis and repeatability; (limit value setting to DIN 16086) characteristics deviation in the extended display range: 1.5 % of the span switch point accuracy in the extended display range: 1.5 % of the span **) with temperature fluctuations < 10 K ***) in % of the span per year
Pack quantity [piece]	1