

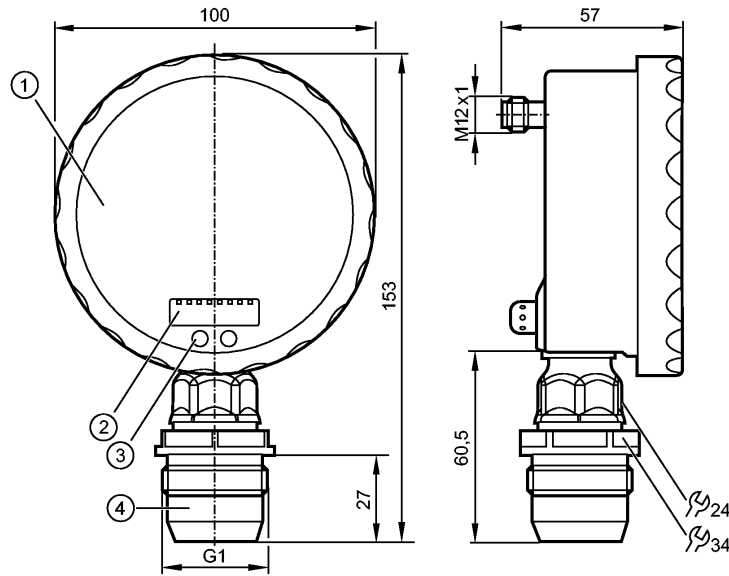


PG2898

PG-,25BREA01-MFRKG/US/ /P



Pressure sensors



- 1: Analogue display
- 2: 4-digit alphanumeric display
- 3: Touch pad (programming button)
- 4: Sealing cone G 1 male

Attention: The unit must only be installed in a process connection for G1 sealing cone! The G1A sealing cone of the unit is only suited for adapters with metal end stop!

ACS CE cUL_{US} LISTED EC 1935/2004 EHEDG Certified FDA

Product characteristics

Electronic pressure sensor
with analog display

Quick disconnect

Suitable for all standard CIP and SIP processes

Analog display 0...350° rotatable

Resolution 0.25%

Pointer not visible when unit disconnected

Sealing cone G 1 male

Process connection: Sealing cone G 1 male

2 Output

OUT1 = Switching output

OUT2 = Analog output

analog display, 4-digit alphanumeric display

Measuring range: -12.4...250.0 mbar / -5.0...100.4 inH2O

Application

| | | |
|-------------------------|--|-------------|
| Application | Type of pressure: relative pressure Hygienic systems, viscous media and liquids with suspended particles Liquids and gases | |
| Pressure rating | 10000 mbar | 4014 inH2O |
| Bursting pressure min. | 30000 mbar | 12043 inH2O |
| 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) |



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Pressure sensors

| | | |
|-----------------------------|------|------------------|
| Insulation resistance | [MΩ] | > 100 (500 V DC) |
| Protection class | | III |
| Reverse polarity protection | | yes |

| Outputs | | |
|--------------------------|------|---|
| Output | | 2 Output OUT1 = Switching output OUT2 = Analog 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 | | yes (non-latching) |
| Overload protection | | yes |
| Switching frequency | [Hz] | 50 |
| Analog 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 | | -12.4...250.0 mbar -5.0...100.4 inH2O |
| Setting range | | |
| Set point, SP | | -12.0...400.0 mbar -4.8...160.6 inH2O |
| Reset point, rP | | -12.4...399.6 mbar -5.0...160.4 inH2O |
| Analog start point, ASP | | -12.4...337.6 mbar -5.0...135.5 inH2O |
| Analog end point, AEP | | 50.0...400.0 mbar 20.1...160.6 inH2O |
| in steps of | | 0.2 mbar 0.1 inH2O |

| 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 analog output (dAA) | [s] | 0.01...30 |
| Step response time analogue output | [ms] | 25 |
| Integrated watchdog | | yes |

Environment



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Pressure sensors

| | | |
|---------------------|------|----------------|
| Ambient temperature | [°C] | -25...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] | 100 |

Mechanical data

| | | |
|--------------------------|------|--|
| Process connection | | Sealing cone G 1 male |
| 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] | 0.566 |

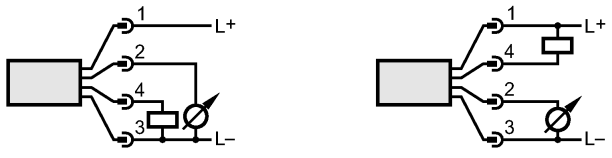
Displays / operating elements

| | | |
|-------------------------------|--|--|
| Display | | Display unit 2 x LED green Switching status LED yellow Switch points LED ring Function display 4-digit alphanumeric display Measured values analog display, 4-digit alphanumeric display |
| Extended display range (max.) | | 400 mbar 160.6 inH ₂ O |

Electrical connection

| | | |
|------------|--|-------------------------------------|
| Connection | | M12 connector; gold-plated contacts |
|------------|--|-------------------------------------|

Wiring



Remarks

| | | |
|---------|--|--|
| Remarks | | Attention: The unit must only be installed in a process connection for G1 sealing cone! The G1A sealing cone of the unit is only suited for adapters with metal end stop! *) 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 |
|---------------|---------|---|