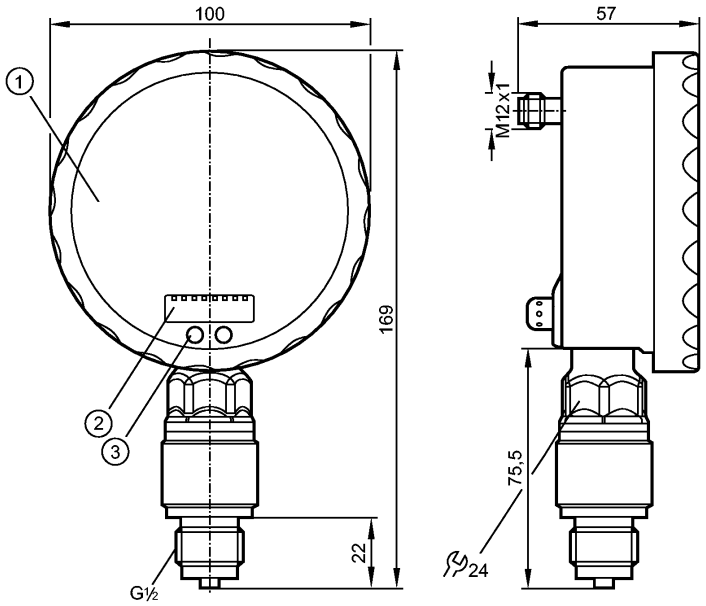
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# PG2450

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

**Pressure sensors**




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

Made in Germany

CE

| Product characteristics |
|---|
| Electronic pressure sensor<br>with analog display |
| Quick disconnect |
| Analog display 0...350° rotatable |
| Resolution 0.25% |
| Pointer not visible when unit disconnected |
| Process connection: G ½ |
| 2 Output<br>OUT1 = Switching output<br>OUT2 = Analog output |
| analog display, 4-digit alphanumeric display |
| Measuring range: 0...400 bar / 0...5800 psi |

| Application | | | |
|---|---|---|---|
| Application | | Type of pressure: relative pressure<br>Liquids and gases<br>Use in gases at pressures > 25 bar only after contacting the manufacturer ifm | |
| Pressure rating | | 800 bar | 11600 psi |
| Bursting pressure min. | | 1200 bar | 17400 psi |
| Medium temperature | [°C] | -25...80 | |

| 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 |
|---|

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

**Pressure sensors**

| | | | |
|---|---|---|---|
| Output | | 2 Output<br>OUT1 = Switching output<br>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] | 75 | |
| Analog output | | I: 4...20 mA (Ineg: 20...4 mA) | |
| Max. load | [Ω] | I / Ineg: max. (Ub - 10 V) x 50 | |
| **Measuring / setting range** | | | |
| Measuring range | | 0...400 bar | 0...5800 psi |
| Setting range | | | |
| Set point, SP | | 2...600 bar | 30...8700 psi |
| Reset point, rP | | 0...598 bar | 0...8670 psi |
| Analog start point, ASP | | 0...500 bar | 0...7250 psi |
| Analog end point, AEP | | 100...600 bar | 1450...8700 psi |
| in steps of | | 1 bar | 10 psi |
| **Accuracy / deviations** | | | |
| Accuracy / deviations<br>(in % of the span) Turn down 1:1 | | | |
| Switch point accuracy | | < ± 0.6 | |
| Characteristics deviation *) | | < ± 0.35 (BFSL) / < ± 0.6 (LS) | |
| Hysteresis | | < ± 0.5 | |
| 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 | | < ± 0.3 | |
| Greatest TEMPCO of the span | | < ± 0.3 | |
| **Reaction times** | | | |
| Power-on delay time | [s] | 6 | |
| Min. response time switching output | [ms] | 9 | |
| 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] | 28 | |
| Integrated watchdog | | yes | |
| **Environment** | | | |
| Ambient temperature | [°C] | -20...80 | |
| Storage temperature | [°C] | -40...100 | |
| Protection | | IP 67 / IP 69K | |
| **Tests / approvals** | | | |
| EMC | | EN 61000-4-2 ESD:<br>EN 61000-4-3 HF radiated: | 4 kV CD / 8 kV AD<br>10 V/m |

| | | | |
|---|---|---|---|
| | | EN 61000-4-4 Burst:<br>EN 61000-4-5 Surge:<br>EN 61000-4-6 HF conducted: | 2 kV<br>0.5/1 kV<br>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 ½ | |
| Materials (wetted parts) | | ceramics (Al2 O3); FPM; stainless steel 316L / 1.4404 | |
| 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] | 0.615 | |

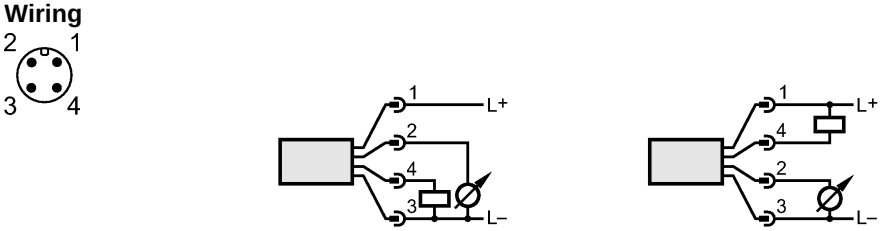
## Displays / operating elements

| | | | |
|---|---|---|---|
| Display | | Display unit<br>Switching status<br>Switch points<br>Function display<br>Measured values | 2 x LED green<br>LED yellow<br>LED ring<br>4-digit alphanumeric display<br>analog display, 4-digit alphanumeric display |
| Extended display range (max.) | | 600 bar | 8700 psi |

## Electrical connection

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

**Wiring**




## Remarks

| | | |
|---|---|---|
| Remarks | | *) BFSL = Best Fit Straight Line<br>switch point accuracy in the extended display range: 1.5 % of the span<br>**) with temperature fluctuations < 10 K<br>***) in% of the span / 6 months |
| Pack quantity | [piece] | 1 |