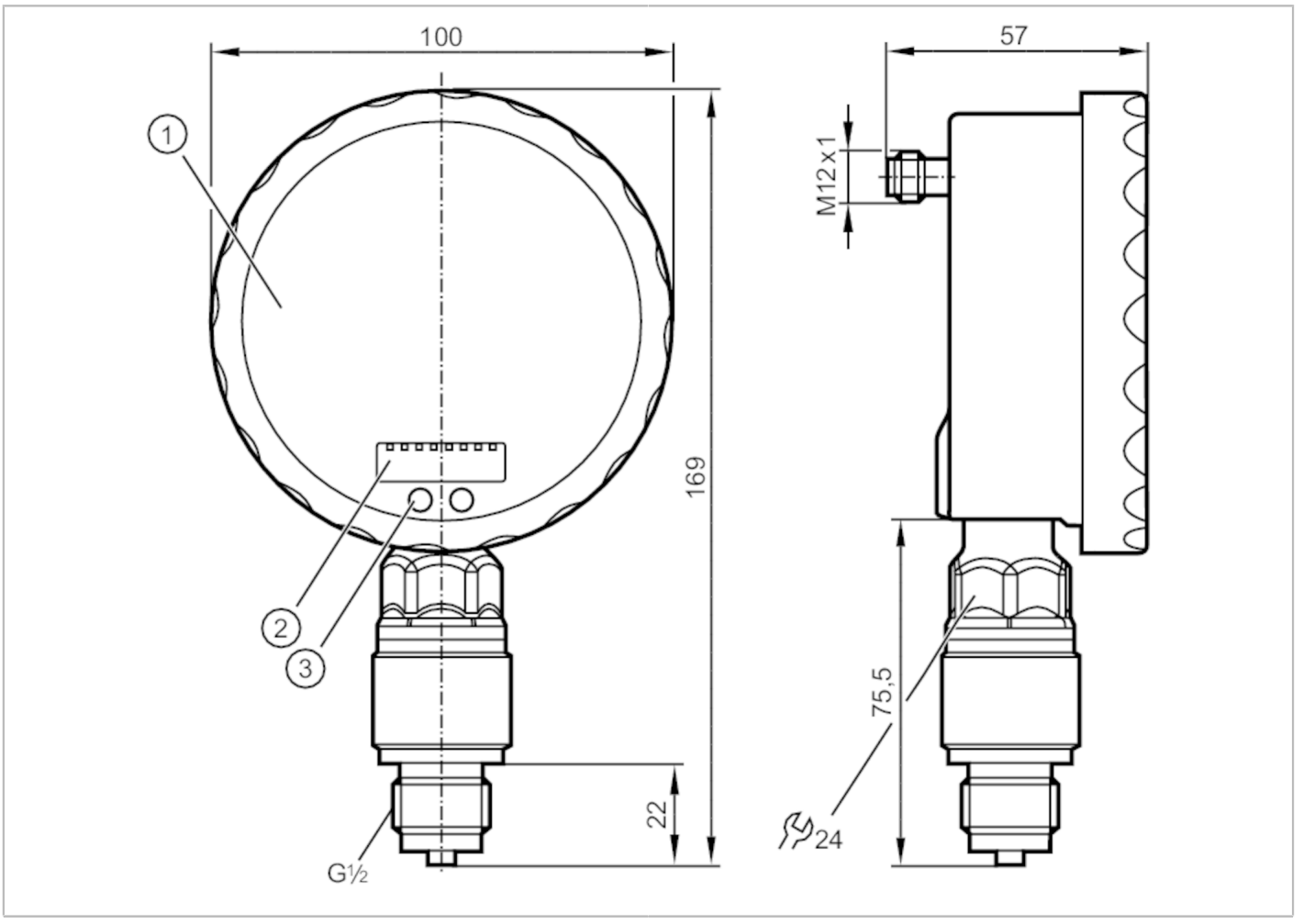
# PG2450

## Pressure sensor with analogue display

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




| | | | |
|---|---|---|---|
| **Product characteristics** | | | |
| Number of inputs and outputs | | Number of digital outputs: 1; Number of analogue outputs: 1 | |
| Measuring range | | 0...400 bar | 0...5800 psi |
| Process connection | | threaded connection G 1/2 external thread | |
| **Application** | | | |
| Special feature | | Gold-plated contacts | |
| Application | | for industrial applications | |
| Media | | liquids and gases | |
| Conditionally suitable for | | use in gases at pressures > 25 bar only on request | |
| Medium temperature | [°C] | -25...80 | |
| Min. bursting pressure | | 1200 bar | 17400 psi |
| Pressure rating | | 800 bar | 11600 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 | |

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| | | |
|---|---|---|
| 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 |
| **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] | (Ub - 10 V) / 20 mA |
| Short-circuit protection | | yes |
| Type of short-circuit protection | | pulsed |
| Overload protection | | yes |

| **Measuring/setting range** | | |
|---|---|---|
| Measuring range | 0...400 bar | 0...5800 psi |
| Set point SP | 2...600 bar | 30...8700 psi |
| Reset point rP | 0...598 bar | 0...8670 psi |
| Analogue start point | 0...500 bar | 0...7250 psi |
| Analogue end point | 100...600 bar | 1450...8700 psi |
| In steps of | 1 bar | 10 psi |

| **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) |

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|---|---|---|---|
| **Response times** | | | |
| Response time | [ms] | < 9 | |
| Damping process value dAP | [s] | 0.01...30 | |
| Damping for the analogue output dAA | [s] | 0.01...30 | |
| Step response time analogue output | [ms] | 28 | |
| **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] | 100 | |
| Pressure Equipment Directive | | Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request | |
| **Mechanical data** | | | |
| Weight | [g] | 568.3 | |
| Materials | | stainless steel (316L/1.4404); PA; FKM; PTFE; viewing glass: laminated safety glass 4 mm | |
| Materials (wetted parts) | | Al2O3 (ceramics); FKM; stainless steel (316L/1.4404) | |
| Min. pressure cycles | | 100 million | |
| Process connection | | threaded connection G 1/2 external thread | |
| Restrictor element integrated | | yes | |
| **Displays / operating elements** | | | |
| Display | | Display unit | 2 x LED, green |
| | | switching status | LED, yellow |
| | | switch points | LED ring, red |
| | | function display | alphanumeric display, red 4-digit |
| | | measured values | analogue display, 0...350° rotatable, pointer not visible when unit disconnected |
| | | measured values | alphanumeric display, red 4-digit |
| With scale | | yes | |
| Extended display range (max.) | | 600 bar | 8700 psi |
| **Remarks** | | | |
| Remarks | | switch point accuracy in the extended display range: 1.5 % of the span | |
| Pack quantity | | 1 pcs. | |

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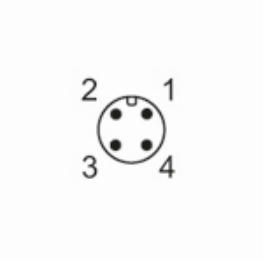
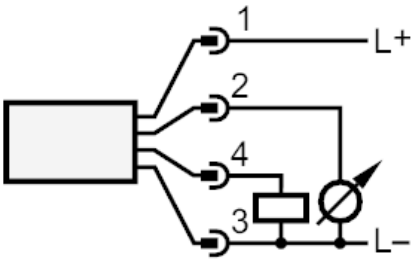
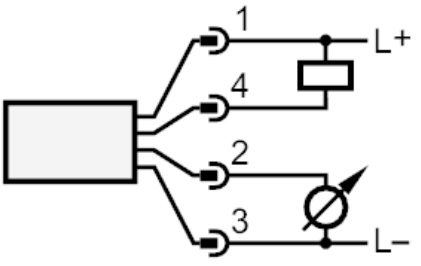
## Electrical connection

Connector: 1 x M12; coding: A; Contacts: gold-plated




### Connection




| | |
|---|---|
| OUT1 | switching output |
| OUT2 | analogue output |