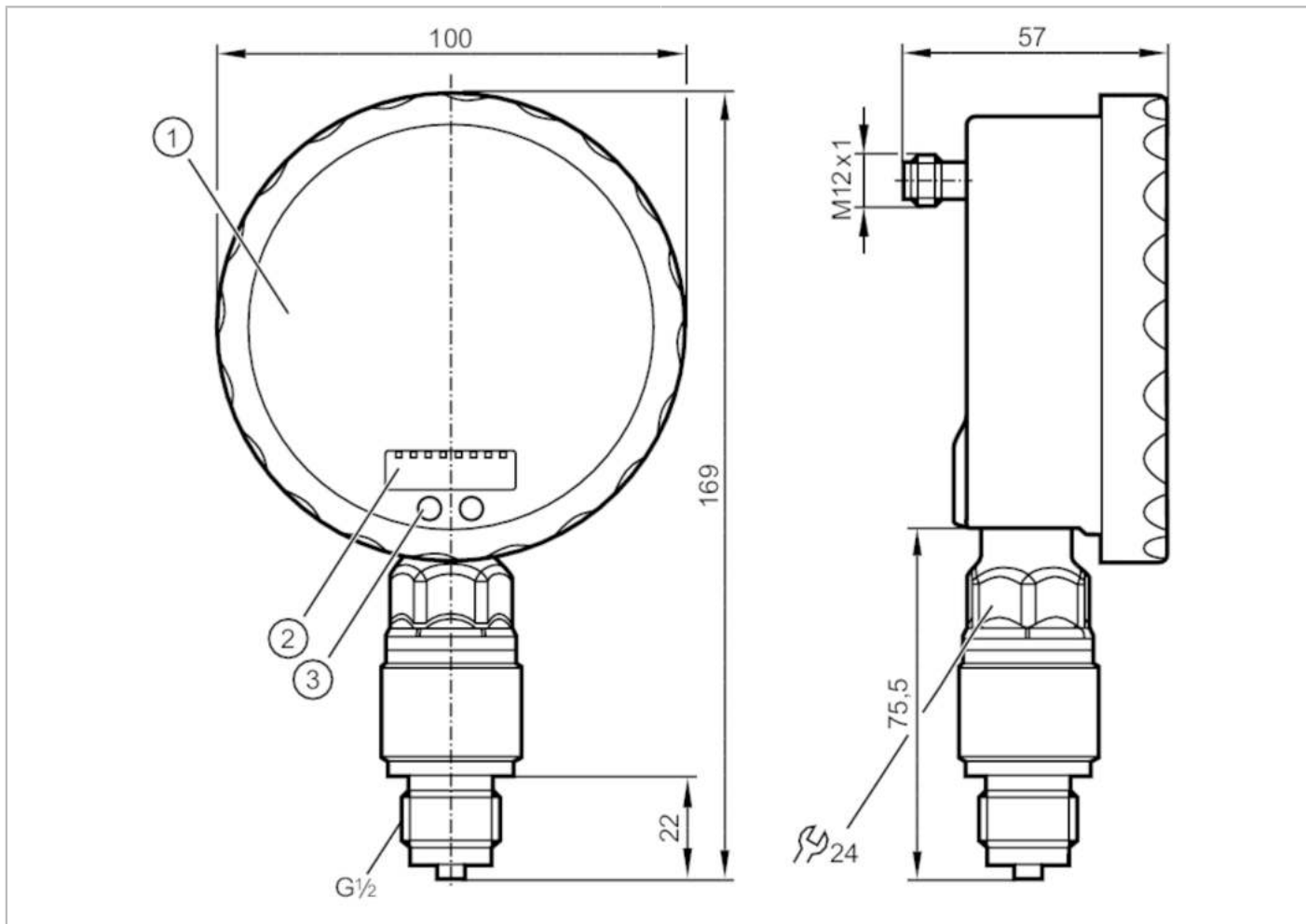


PG2451



Pressure sensor with analogue display

PG-250-REB12-MFRKG/US/ /P



Product characteristics

| | | |
|------------------------------|-------------------------------------------------------------|--------------|
| Number of inputs and outputs | Number of digital outputs: 1; Number of analogue outputs: 1 | |
| Measuring range | 0...250 bar | 0...3625 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 | 1000 bar | 14500 psi |
| Pressure rating | 600 bar | 8700 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] | (U _b - 10 V) / 20 mA |
| Short-circuit protection | | yes |
| Type of short-circuit protection | | pulsed |
| Overload protection | | yes |

Measuring/setting range

| | | |
|----------------------|--------------|----------------|
| Measuring range | 0...250 bar | 0...3625 psi |
| Set point SP | 1...400 bar | 15...5800 psi |
| Reset point rP | 0...399 bar | 0...5785 psi |
| Analogue start point | 0...350 bar | 0...5075 psi |
| Analogue end point | 50...400 bar | 725...5800 psi |
| In steps of | 0.5 bar | 5 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] | 563 |
| 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 |
| 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.) | 400 bar | 5800 psi |
| Remarks | | |
| Remarks | | switch point accuracy in the extended display range: 1.5 % of the span |
| Pack quantity | | 1 pcs. |

PG2451

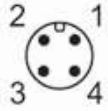


Pressure sensor with analogue display

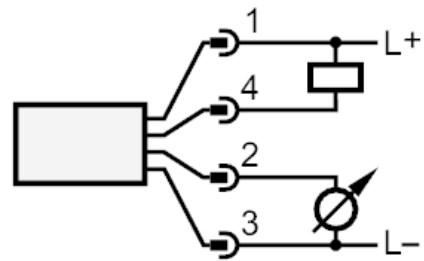
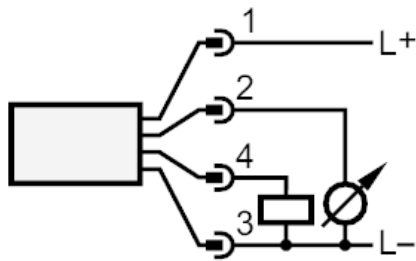
PG-250-REB12-MFRKG/US/ /P

Electrical connection

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



Connection



OUT1
OUT2

switching output
analogue output