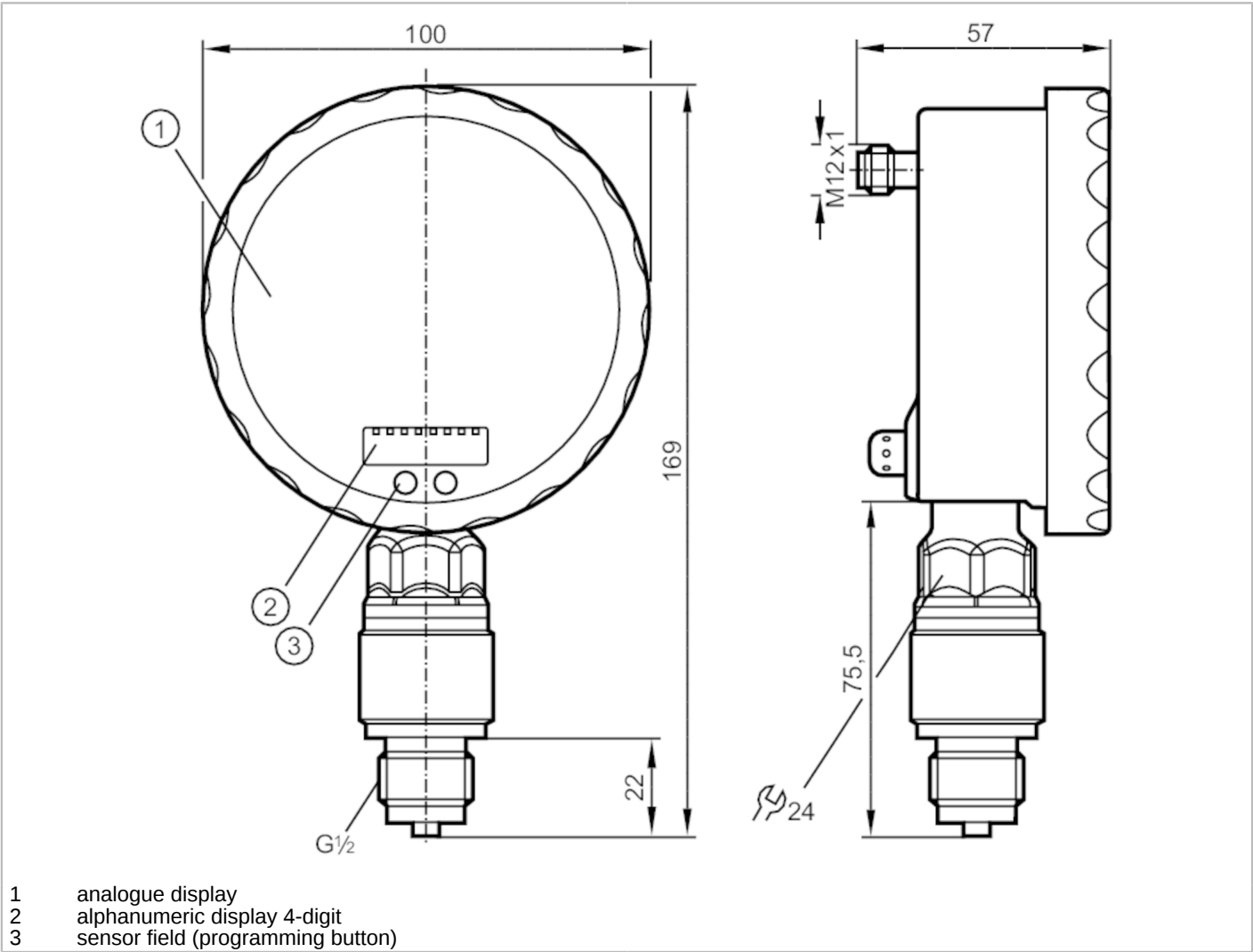


PG2409



Pressure sensor with analogue display

PG-1-1-REB12-MFRKG/US/ /P



| Product characteristics | | | |
|---------------------------------|---|-------------------|--------------------|
| Number of inputs and outputs | Number of digital outputs: 1; Number of analogue outputs: 1 | | |
| Measuring range | -1...1 bar | -1000...1000 mbar | -14.52...14.52 psi |
| Process connection | threaded connection G 1/2 external thread | | |
| Application | | | |
| Special feature | Gold-plated contacts | | |
| Application | for industrial applications | | |
| Media | liquids and gases | | |
| Medium temperature [°C] | -25...80 | | |
| Min. bursting pressure | 30 bar | 435 psi | |
| Pressure rating | 10 bar | 145 psi | |
| Type of pressure | relative pressure; vacuum | | |
| Electrical data | | | |
| Operating voltage [V] | 18...32 DC | | |
| Current consumption [mA] | < 70; (24 V) | | |
| Min. insulation resistance [MΩ] | 100; (500 V DC) | | |



Pressure sensor with analogue display

PG-1-1-REB12-MFRKG/US/ /P

| | |
|-----------------------------|-----|
| Protection class | III |
| 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 | -1...1 bar | -1000...1000 mbar | -14.52...14.52 psi |
| Set point SP | -0.992...1.6 bar | | -14.4...23.22 psi |
| Reset point rP | -1...1.592 bar | | -14.52...23.1 psi |
| Analogue start point | -1...1.1 bar | | -14.52...15.96 psi |
| Analogue end point | -0.5...1.6 bar | | -7.26...23.22 psi |
| In steps of | 0.004 bar | | 0.06 psi |

Accuracy / deviations

| | |
|---|--|
| Switch point accuracy [% of the span] | < ± 0,5; (Turn down 1:1) |
| Repeatability [% of the span] | < ± 0,1; (with temperature fluctuations < 10 K; Turn down 1:1) |
| Characteristics deviation [% of the span] | < ± 0,25 (BFSL) / < ± 0,5 (LS); (Turn down 1:1; BFSL = Best Fit Straight Line) |
| Hysteresis deviation [% of the span] | < ± 0,25; (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] | < ± 0,2; (0...70 °C) |
| Temperature coefficient span [% of the span / 10 K] | < ± 0,2; (0...70 °C) |



Pressure sensor with analogue display

PG-1-1-REB12-MFRKG/US/ /P

| 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] | 103 |
| Pressure Equipment Directive | Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request | |
| Mechanical data | | |
| Weight | [g] | 565.2 |
| 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 | no (can be retrofitted) | |
| 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.) | 1.6 bar | 23.22 psi |
| Remarks | | |
| Remarks | switch point accuracy in the extended display range: 1.5 % of the span | |
| Pack quantity | 1 pcs. | |

PG2409



Pressure sensor with analogue display

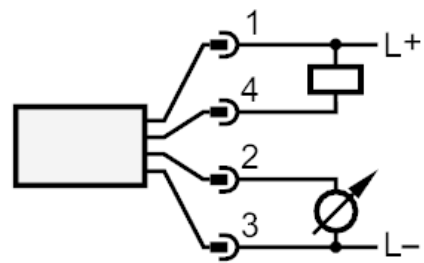
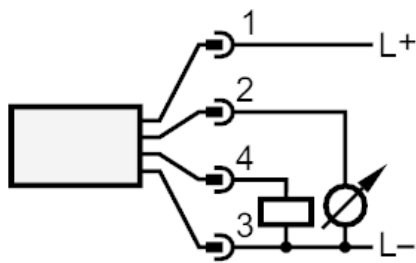
PG-1-1-REB12-MFRKG/US/ /P

Electrical connection

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



Connection



OUT1
OUT2

switching output
analogue output