

PM82-4

Nöding

Messtechnik



Datasheet Digital Contact Gauge PM82-4

PERFORMANCE FEATURES

- 3 digit LED display
- Dry capacitive ceramic sensor
- High overload capability
- Smallest measuring range: 0...50 mbar
- Largest measuring range: 0...60 bar
- Negative pressure measuring range: up to -1 bar
- Recording min./max. pressure
- Accuracy $\leq 0,5\%$
- 2 contact outputs DC PNP, max. 200mA
- Analog output: 4...20 mA, 3-wires
0...10 V, 3-wires
0...20 mA, 3-wires

AREAS OF APPLICATION

- Industrial water applications
- Beverage industry
- Gaseous media
- Hygiene applications
- Abrasive media
- Aggressive media

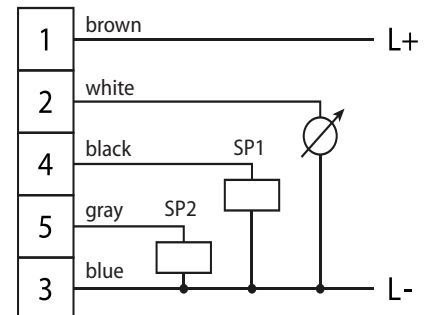
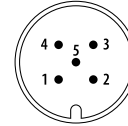
The model PM82-4 extends the standard model PM82 with a capacitive measuring cell. The result is a finer measuring range with higher overload capability. The HD version in particular is suitable for pressure peaks in fast-closing systems such as drinking water applications. Its large and bright display can still be easily read from a distance and therefore allows for a quick assessment of the process pressure. The analog output with 2 adjustable switching outputs extends the range of applications. Additional process connections and measuring ranges are offered in model PM82-3. Our modular design concept provides a wide variety of products. Feel free to contact us if you need customization that is not listed in this datasheet.

TECHNICAL DATA

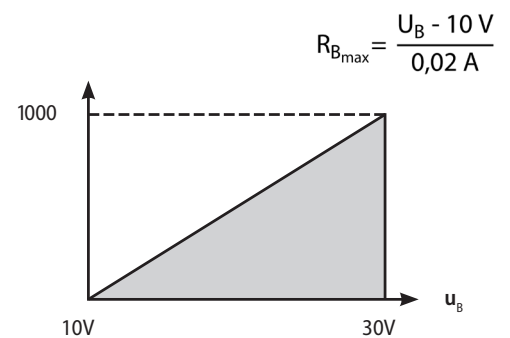
| Measuring range | |
|-------------------------------|--|
| Pressure range | See table „Measuring ranges“ others on request |
| Output | |
| Analog output | 4...20 mA 3-wires 0...10 V 3-wires 0...20 mA 3-wires |
| Contact output | 2x DC PNP, max. 200 mA |
| Power supply | |
| 20 mA output | 10...30 V DC |
| 10 V output | 16...30 V DC |
| Signal characteristics | |
| Accuracy | $\leq \pm 0,5 \% \text{ FS @ } 25^\circ\text{C}$ |
| Long term stability | $\leq \pm 0,5 \% \text{ FS/Year}$ |
| Response time | 200 ms - others on request |
| Switch-on time | < 1 s |
| Temperature coefficient | |
| Zero | $\leq \pm 0,03 \% \text{ FS/Kelvin}$ |
| Span | $\leq \pm 0,02 \% \text{ FS/Kelvin}$ |
| Temperature ranges | |
| Medium temperature | -25...100 °C |
| Surrounding temperature | -25...80 °C |
| Storage temperature | -40...85 °C |
| Electrical protections | |
| Short-circuit resistance | Permanent |
| Reverse polarity protection | Protection against reverse polarity, but no function |
| Electromagnetic compatibility | Interference emissions and immunity acc. to EN 61326 |
| Wetted materials | |
| Process connection | Stainless steel, 1.4404 |
| Sensor | Ceramic Al_2O_3 |
| Sensor seal | FPM (Viton), NBR, EPDM, FFKM (Chemraz / Kalrez) |
| Surroundings | |
| Protection type | IP 67 |
| Exemplary weight | |
| PM82-4-3210-310 (figure p. 1) | Approx. 440 g |

ELECTRICAL CONNECTION

M12 Connector



LOAD



MEASURING RANGES

| Measuring ranges | Relative | Overload (bar) | Burst pressure (bar) |
|---------------------------------|-----------|----------------|----------------------|
| 0...50 mbar / 0...5 kPa | B0 | -1/2 | 4 |
| 0...60 mbar / 0...6 kPa | A9 | -1/2 | 4 |
| 0...100 mbar / 0...10 kPa | 00 | -1/2 | 4 |
| 0...160 mbar / 0...16 kPa | 01 | -1/2 | 4 |
| 0...200 mbar / 0...20 kPa | B1 | -1/2 | 4 |
| 0...250 mbar / 0...25 kPa | 02 | -1/2 | 4 |
| 0...400 mbar / 0...40 kPa | 03 | -1/2 | 4 |
| 0...500 mbar / 0...50 kPa | B7 | -1/4 | 8 |
| 0...600 mbar / 0...60 kPa | 04 | -1/4 | 8 |
| 0...1 bar / 0...100 kPa | 05 | -1/4 | 8 |
| 0...1,6 bar / 0...160 kPa | 06 | -1/7 | 13 |
| 0...2 bar / 0...200 kPa | B3 | -1/7 | 13 |
| 0...2,5 bar / 0...250 kPa | 07 | -1/10 | 18 |
| 0...4 bar / 0...400 kPa | 08 | -1/10 | 18 |
| 0...5 bar / 0...500 kPa | F1 | -1/21 | 25 |
| 0...6 bar / 0...600 kPa | 09 | -1/21 | 25 |
| 0...10 bar / 0...1 MPa | 10 | -1/30 | 50 |
| 0...10 bar / 0...1 MPa | HD | -1/105 | 175 |
| 0...16 bar / 0...1,6 MPa | 11 | -1/30 | 50 |
| 0...16 bar / 0...1,6 MPa | H1 | -1/105 | 175 |
| 0...20 bar / 0...2 MPa | B5 | -1/60 | 100 |
| 0...20 bar / 0...2 MPa | H2 | -1/105 | 175 |
| 0...25 bar / 0...2,5 MPa | 12 | -1/105 | 175 |
| 0...40 bar / 0...4 MPa | 13 | -1/105 | 175 |
| 0...60 bar / 0...6 MPa | 14 | -1/210 | 350 |
| -25...25 mbar / -2,5...2,5 kPa | C2 | -0,3/2 | 4 |
| -100...0 mbar / -10...0 kPa | C4 | -1/2 | 4 |
| -100...100 mbar / -10...10 kPa | C5 | -1/2 | 4 |
| -400...0 mbar / -40...0 kPa | F7 | -1/2 | 4 |
| -1...0 bar / -100...100 kPa | D4 | -1/7 | 13 |
| -1...1 bar / -100...100 kPa | D6 | -1/10 | 10 |
| -1...3 bar / -100...300 kPa | D8 | -1/21 | 25 |
| -1...5 bar / -100...500 kPa | D9 | -1/21 | 25 |
| -1...9 bar / -100...900 kPa | E1 | -1/30 | 50 |
| -1...15 bar / -0,1...1,5 MPa | E2 | -1/60 | 100 |
| -1...19 bar / -0,1...1,9 MPa | E3 | -1/60 | 100 |
| -1...20 bar / -0,1...20 MPa | E8 | -1/60 | 100 |
| -1...25 bar / -0,1...25 MPa | E7 | -1/105 | 175 |
| -1...40 bar / -0,1...40 MPa | F9 | -1/105 | 175 |
| -1...60 bar / -0,1...60 MPa | G1 | -1/210 | 350 |

ORDERING CODE

Analog output

- 0 None
- 1 0...10 V 3-wires
- 2 0...20 mA 3-wires
- 3 4...20 mA 3-wires

Contact output

- 1 1 contact
- 2 2 contacts

Ranges

- Measuring ranges see table
- 99 Non-standard range (on request)

Process connection and material

- 2 1/2 - 14 NPT, 1.4404
- 3 G 1/2 B, EN 837-1, 1.4404
- BC Bioconnect® DN 25, 1.4404
- M Dairy thread DN 25 DIN 11851, 1.4404
- 6 Dairy thread DN 32 DIN 11851, 1.4404
- 7 Dairy thread DN 40 DIN 11851, 1.4404
- K Dairy thread DN 40 aseptisch, 1.4404
- N DRD flange DN 65, 1.4404
- L Clamp 1" DN 25...40, 1.4404
- W Clamp 2" DN 50, 1.4404
- 9 Others (on request)

Sensor seal

- 1 FPM (Viton), standard
- 2 NBR (Perbuan)
- 3 EPDM
- 5 FFKM (Chemraz / Kalrez)
- 9 Others (on request)

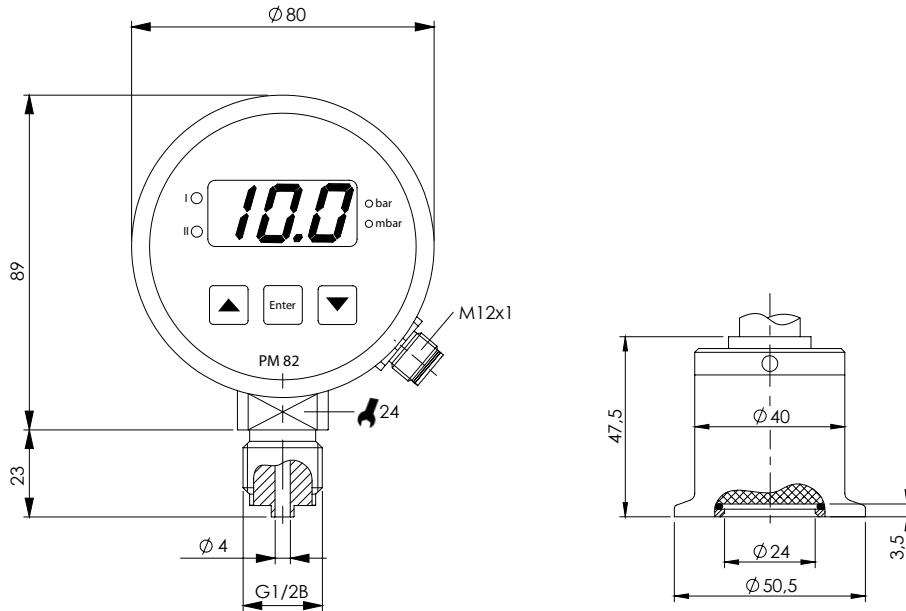
Options

- 0 Display 3 digits (standard)
- 1 Display reduced to 2 digits

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DIMENSIONS



PROCESS CONNECTION

TYPE 3

TYPE L