

PM82-3

Nöding

Messtechnik



Datasheet Digital Contact Gauge PM82-3

PERFORMANCE FEATURES

- Front-flush, dry, capacitive ceramic sensor
- 80 mm stainless steel case rotatable 330°
- 3 digit LED display
- Recording min./max. pressure
- Smallest measuring range: 0...25 mbar
- Largest measuring range: 0...40 bar
- Negative pressure measuring range: up to -1 bar
- 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

- Food industry
- Pharmaceutical industry
- Industrial water applications
- Gaseous media
- Hygiene applications
- Abrasive media
- Aggressive media

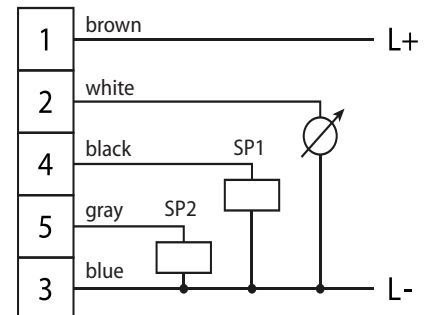
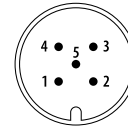
The model PM82-3 is an extension of our standard pressure gauge PM82 with a rotatable housing and a front-flush capacitive sensor. The process connection prevents hidden edges and drill holes, allowing for optimal cleaning and maintenance. Its large and bright display can still be easily read from a distance and therefore allows for a quick assessment of the process pressure. An analog output and 2 relays widen the range of applications. The capacitive measuring principle enables very accurate and long-term stable measurement even at lowest pressures and high overload capability. Our modular design concept provides a wide variety of products. Feel free to contact us if you need a customization that is not listed in this datasheet.

TECHNICAL DATA

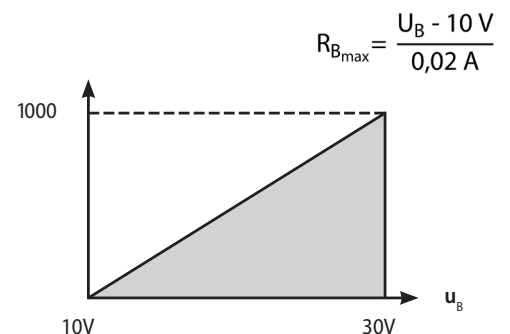
Measuring range	
Pressure range	See table „Measuring ranges“ others on request
Output	
Analog output	4...20 mA 3-wires 0...10 V 3-wires 0...20 mA 3-wires
Contact output	2x DC PNP, max. 200 mA
Power supply	
20 mA output	10...30 V DC
10 V output	16...30 V DC
Signal characteristics	
Accuracy	$\leq \pm 0,5 \% \text{ FS @ } 25^\circ\text{C}$
Long term stability	$\leq \pm 0,5 \% \text{ FS / Jahr}$
Response time	200 ms - others on request
Switch-on time	< 1s
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	
PM82-3-3210-F10 (figure p. 1)	Approx. 640 g

ELECTRICAL CONNECTION

M12 Connector



LOAD



MEASURING RANGES

Measuring ranges	Relative	Overload (bar)
0...25 mbar / 0...2,5 kPa	A7	-0,3/4
0...40 mbar / 0...4 kPa	A8	-0,3/4
0...50 mbar / 0...5 kPa	B0	-0,3/4
0...60 mbar / 0...6 kPa	A9	-0,3/4
0...100 mbar / 0...10 kPa	00	-0,3/4
0...160 mbar / 0...16 kPa	01	-0,5/6
0...200 mbar / 0...20 kPa	B1	-0,5/6
0...250 mbar / 0...25 kPa	02	-0,5/6
0...400 mbar / 0...40 kPa	03	-1/6
0...500 mbar / 0...50 kPa	B7	-1/6
0...600 mbar / 0...60 kPa	04	-1/10
0...1 bar / 0...100 kPa	05	-1/10
0...1,6 bar / 0...160 kPa	06	-1/15
0...2 bar / 0...200 kPa	B3	-1/15
0...2,5 bar / 0...250 kPa	07	-1/15
0...4 bar / 0...400 kPa	08	-1/25
0...5 bar / 0...500 kPa	F1	-1/25
0...6 bar / 0...600 kPa	09	-1/40
0...10 bar / 0...1 MPa	10	-1/40
0...16 bar / 0...1,6 MPa	11	-1/40
0...20 bar / 0...2 MPa	B5	-1/40
0...25 bar / 0...2,5 MPa	12	-1/40
0...40 bar / 0...4 MPa	13	-1/60
-20...20 mbar / -2...2 kPa	C2	-0,3/4
-100...100 mbar / -10...10 kPa	C5	-0,5/6
-200...200 mbar / -20...20 kPa	D3	-1/6
-1...1 bar / -100...100 kPa	D6	-1/15
-1...1,5 bar / -100...150 kPa	D7	-1/15
-1...3 bar / -100...300 kPa	D8	-1/25
-1...5 bar / -100...500 kPa	D9	-1/40
-1...9 bar / -100...900 kPa	E1	-1/40
-1...15 bar / -100...1500 kPa	E2	-1/40
-1...19 bar / -100...1900 kPa	E3	-1/40
-1...20 bar / -100...2000 kPa	E8	-1/40

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

- F G 1 A, ISO 228-1, 1.4404
- Z G 1 1/4 A, ISO 228-1, 1.4404
- 5 G 1 1/2 A, ISO 228-1, 1.4404
- U Flange DN 25, 1.4404
- A Flange DN 40, 1.4404
- B Flange DN 50, 1.4404
- 9 Others (on request)

Sensor seal

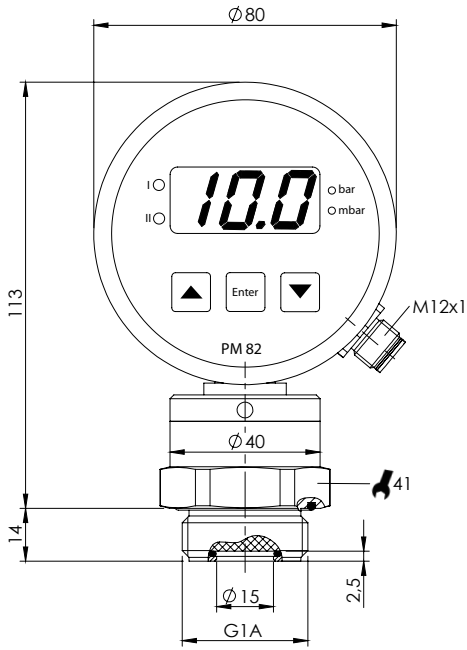
- 1 FPM (Viton), standard
- 2 NBR (Perbuan)
- 3 EPDM
- 5 FFKM (Chemraz / Kalrez)
- 9 Others (on request)

Options

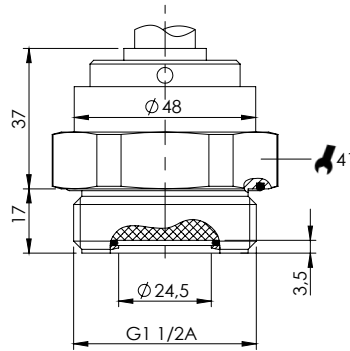
- 0 Display 3 digits (standard)
- 1 Display reduced to 2 digits

PM82-3 - 

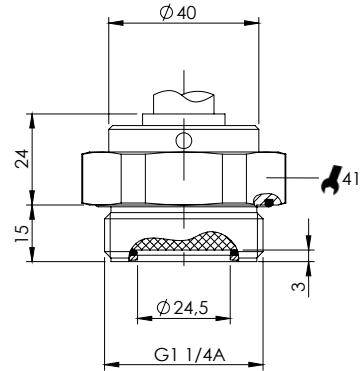
DIMENSIONS



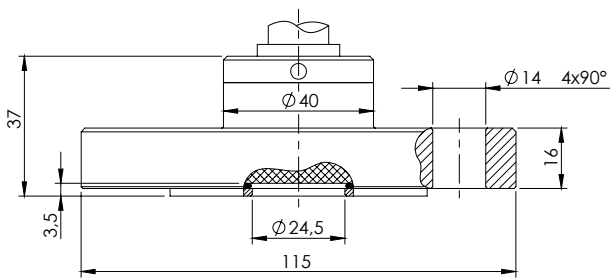
PROCESS CONNECTION ■ TYPE F



■ TYP 5



■ TYPE Z



PROCESS CONNECTION ■ TYPE U