

P136



Nöding

Messtechnik

Datasheet Pressure Transmitter P136

PERFORMANCE FEATURES

- Front flush dry ceramic sensor
- Dry capacitive ceramic sensor
- Adjustable range (Turndown) 5:1
- Smallest measuring range: 0...10 mbar
- Largest measuring range: 0...60 bar
- Negative pressure measuring range: up to -1 bar
- Accuracy $\leq 0,2\%$
- High overload capability
- Rugged design
- Analog output: 4...20 mA, 2-wires

AREAS OF APPLICATION

- Viscous and pasty media
- Hygiene applications
- Aggressive media
- Liquid media
- Abrasive media
- Gaseous media

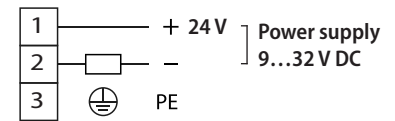
The P136 model is designed for use in applications where media tend to deposit and clog the sensor. A front-flush process connection prevents hidden edges and drill holes, in combination with a resistant ceramic sensor, optimal cleaning and maintenance can be ensured. The measuring range can be fine-tuned subsequently and the cable is connected directly to the integrated clamps. The ceramic sensor element is resistant to aggressive and abrasive media. The capacitive measuring principle enables a very accurate and long-term stable measurement even at lowest pressures and high overload resistance. The process connection is made of high-quality stainless steel 1.4404 and is therefore suitable for almost all media. 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

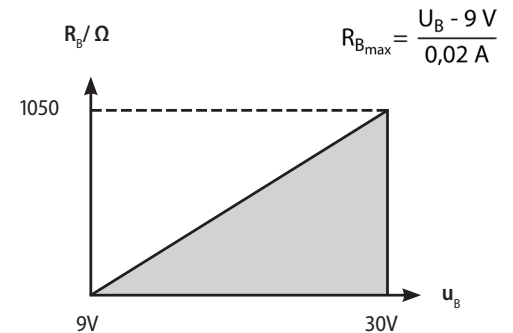
Measuring range	
Pressure range	see table „Measuring ranges“ others on request
Output	
Analog output	4...20 mA 2-wires
Power supply	
20 mA output	9...30 V DC
Signal characteristics	
Accuracy	$\leq \pm 0,2\%$ FS @ 25 °C
Long term stability	$\leq \pm 0,15\%$ FS/ Jahr
Response time	200 ms - others on request
Switch-on time	< 1 s
Temperature coefficient	
Zero	$\leq \pm 0,015\%$ FS/ Kelvin
Span	$\leq \pm 0,01\%$ FS/ Kelvin
Temperature ranges	
Medium temperature	-40...100 °C (125 °C < 0,5 h)
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	Ceramics Al ₂ O ₃ - FDA
Sensor seal	FPM (Viton), NBR, EPDM, FFKM (Chemraz / Kalrez)
Surroundings	
Protection type	IP 65
Exemplarisches Gewicht	
P136-400-511 (figure p. 1)	Approx. 600 g

ELECTRICAL CONNECTION

4...20 mA, 2-wires



LOAD



MEASURING RANGES

Measuring ranges	Relative	Absolute	Adjustable range	Overload (bar)
0...10 mbar / 0...1 kPa *	A4		10...50 mbar / 1...5 kPa	-0,3/4
0...20 mbar / 0...2 kPa *	A6		10...50 mbar / 1...5 kPa	-0,3/4
0...25 mbar / 0...2,5 kPa *	A7		10...50 mbar / 1...5 kPa	-0,3/4
0...40 mbar / 0...4 kPa *	A8		20...100 mbar / 2...10 kPa	-0,3/4
0...60 mbar / 0...6 kPa *	A9		20...100 mbar / 2...10 kPa	-0,3/4
0...100 mbar / 0...10 kPa	00		25...120 mbar / 2,5...12 kPa	-0,3/4
0...160 mbar / 0...16 kPa	01		40...200 mbar / 4...20 kPa	-0,6/5
0...200 mbar / 0...20 kPa	B1	B2	40...200 mbar / 4...20 kPa	-1/6
0...250 mbar / 0...25 kPa	02	27	80...400 mbar / 8...40 kPa	-1/6
0...400 mbar / 0...40 kPa	03	28	80...400 mbar / 8...40 kPa	-1/6
0...600 mbar / 0...60 kPa	04	29	0,2...1 bar / 20...100 kPa	-1/10
0...1 bar / 0...100 kPa	05	30	0,2...1 bar / 20...100 kPa	-1/10
0...1,6 bar / 0...160 kPa	06	31	0,4...2 bar / 40...200 kPa	-1/18
0...2 bar / 0...200 kPa	B3	B4	0,4...2 bar / 40...200 kPa	-1/18
0...2,5 bar / 0...250 kPa	07	32	0,8...4 bar / 80...400 kPa	-1/18
0...4 bar / 0...400 kPa	08	33	0,8...4 bar / 80...400 kPa	-1/25
0...6 bar / 0...600 kPa	09	34	2...10 bar / 0,2...1 MPa	-1/40
0...10 bar / 0...1 MPa	10	35	2...10 bar / 0,2...1 MPa	-1/40
0...16 bar / 0...1,6 MPa	11	36	4...20 bar / 0,4...2 MPa	-1/40
0...20 bar / 0...2 MPa	B5	B6	4...20 bar / 0,4...2 MPa	-1/40
0...25 bar / 0...2,5 MPa	12	37	8...40 bar / 0,8...4 MPa	-1/40
0...40 bar / 0...4 MPa	13	38	8...40 bar / 0,8...4 MPa	-1/60
0...60 bar / 0...6 MPa	14	39	15...70 bar / 1,5...7 MPa	-1/100
-100...0 mbar / -10...0 kPa	C4		20...100 mbar / 2...10 kPa	-0,3/4
-100...100 mbar / -10...10 kPa	C5		20...100 mbar / 2...10 kPa	-0,3/4
-200...0 mbar / -20...0 kPa	D2		40...200 mbar / 4...20 kPa	-1/6
-200...200 mbar / -20...20 kPa	D3		40...200 mbar / 4...20 kPa	-1/6
-1...0 bar / -100...0 kPa	D4		0,2...1 bar / 20...100 kPa	-1/6
-1...0,6 bar / -100...60 kPa	D5		0,2...1 bar / 20...100 kPa	-1/10
-1...1 bar / -100...100 kPa	D6		0,2...1 bar / 20...100 kPa	-1/10
-1...1,5 bar / -100...150 kPa	D7		0,3...1,5 bar / 30...150 kPa	-1/18
-1...3 bar / -100...300 kPa	D8		0,8...4 bar / 80...400 kPa	-1/25
-1...5 bar / -100...500 kPa	D9		2...10 bar / 0,2...1 MPa	-1/40
-1...9 bar / -100...900 kPa	E1		2...10 bar / 0,2...1 MPa	-1/40
-1...15 bar / -100...1500 kPa	E2		4...19 bar / 0,4...1,9 MPa	-1/40
-1...19 bar / -100...1900 kPa	E3		4...19 bar / 0,4...1,9 MPa	-1/40

* Accuracy 0,5%

ORDERING CODE

Output signal

4 4...20 mA 2-wires

Ranges

Measuring ranges see table

99 Non-standard range (on request)

Process connection and material

- F G1 A, ISO 228-1, 1.4404 (N/A with pure ceramic)
- 5 G1 1/2 A, ISO 228-1, 1.4404
- L Clamp 1" DN 25...40, 1.4404
- M Dairy thread DN 25, DIN 11851, 1.4404
- 6 Dairy thread DN 32, DIN 11851, (on request)
- 7 Dairy thread DN 40, DIN 11851, 1.4404
- K Dairy thread DN 40 aseptic, 1.4404
- 8 Dairy thread DN 50, DIN 11851, 1.4404
- N DRD flange DN 65, 1.4404
- 9 Others on request

Sensor seal

- 1 FPM (Viton), standard
- 2 NBR (Perbuan), max. 80 °C
- 3 EPDM
- 5 FFKM (Chemraz / Kalrez)
- 9 Sonderausführung

Housing

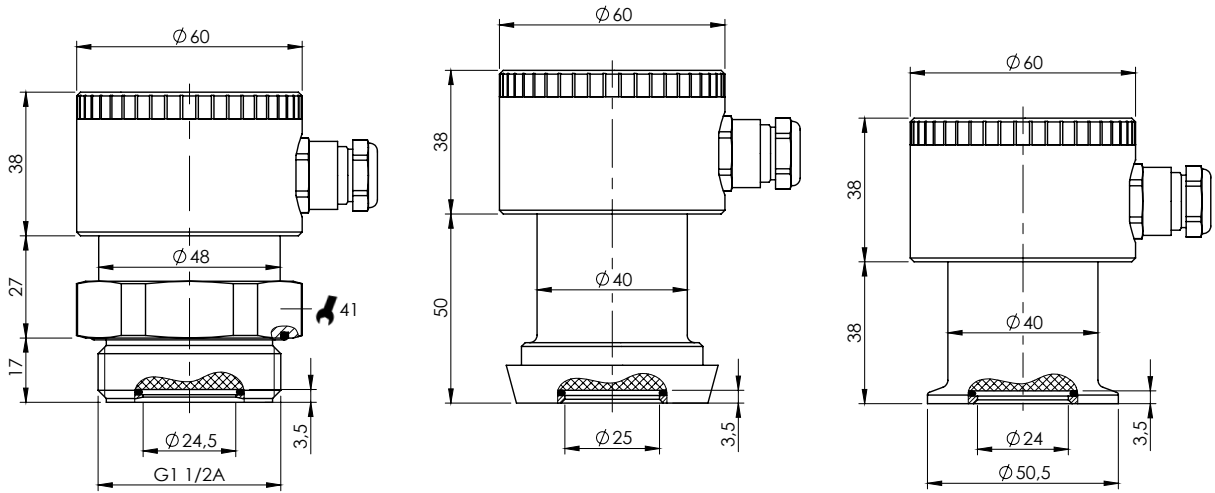
- 1 Stainless steel 1.4301

Options

- R Ceramic sensor 99,9%



■ **DIMENSIONS**



PROCESS CONNECTION ■ **TYPE 5**

■ **TYPE 7**

■ **TYPE L**