P132

Nöding
Messtechnik

Datasheet Pressure Transmitter P132

PERFORMANCE FEATURES

- Front flush, dry capacitive ceramic sensor
- Smallest measuring range: 0…40 mbar
- Largest measuring range: 0…40 bar
- Negative pressure measuring range: up to -1 bar
- Accuracy ≤ 0,2%
- High overload capability
- Integrated cooling section
- Permanent 125°C medium temperature
- Analog output: 4…20 mA, 2-wires
  0…10 V, 3-wires

AREAS OF APPLICATION

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

The model P132 features large process connections and a front-flush measuring sensor. Clogging of the membrane is prevented most effectively and can be easily cleaned if necessary. The integrated cooling section reliably dissipates the heat from the medium temperature in order to protect the electronics and increase the service life. 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. Its housing 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.

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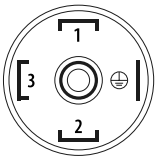
TECHNICAL DATA

Measuring range	
Pressure range	See table "Measuring ranges" others on request
Output	
Analog output	4…20 mA 2-wires 0…10 V 3-wires
Power supply	
20 mA output	9…30 V DC
10 V output	15…30 V DC
Signal characteristics	
Accuracy	≤ ± 0,2 % FS @ 25 °C ≤ ± 0,5 % FS @ 25 °C at pressure range ≤ 60 mbar
Long term stability	≤ ± 0,15 % FS / Year
Response time	200 ms - others on request
Switch-on time	< 1 s
Temperature coefficient	
Zero	≤ ± 0,015 % FS / Kelvin
Span	≤ ± 0,01 % FS / Kelvin
Temperature ranges	
Medium temperature	-40…125°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
Mechanical resistance	
Vibration	4g with 3-axis resonance frequency according to DIN EN 60068-2-6:2008
Wetted materials	
Process connection	Stainless steel 1.4404
Sensor	Ceramic Al_2O_3
Sensor seal	FPM (Viton), NBR, EPDM, FKKM (Chemraz / Kalrez)
Surroundings	
Protection type	see "Electrical connection" in Ordering Code
Exemplary weight	
P132-410-L11 (Abbildung S. 1)	Approx. 300 g

ELECTRICAL CONNECTION

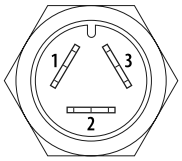
Connector EN 175301-803A



4…20 mA 2-wires
PIN 1: Signal +
PIN 2: Signal –

0 …10 V 3-wires
PIN 1: in +
PIN 2: in -
PIN 3: out +

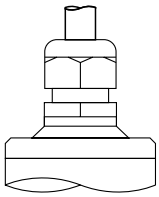
Quickon-Connector



4…20 mA 2-wires
PIN 1: Signal +
PIN 2: Signal –

0 …10 V 3-wires
PIN 1: in +
PIN 2: in -
PIN 3: out +

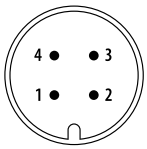
Cable connection



4…20 mA 2-wires
red: Signal +
black: Signal –

0 …10 V 3-wires
red: in +
black: in -
white: out +

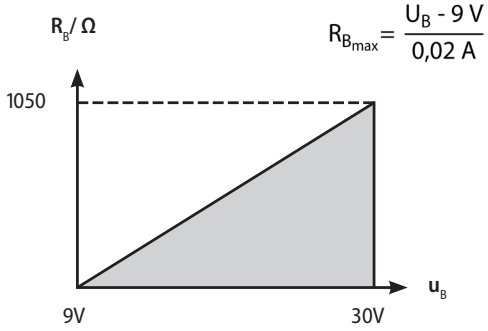
M12 Connector



4…20 mA 2-wires
PIN 1: Signal +
PIN 3: Signal –

0 …10 V 3-wires
PIN 1: in +
PIN 3: in -
PIN 4: out +

LOAD



$$R_{B_{max}} = \frac{U_B - 9\ V}{0{,}02\ A}$$

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MEASURING RANGE

Measuring ranges	Relative	Absolute	Overload (bar)
0…40 mbar / 0…4 kPa * (2)	A8		-0,3/4
0…50 mbar / 0…5 kPa* (2)	B0		-0,3/4
0…60 mbar / 0…6 kPa* (2)	A9		-0,3/4
0…100 mbar / 0…10 kPa	00		-0,3/4
0…160 mbar / 0…16 kPa	01		-0,6/5
0…200 mbar / 0…20 kPa	B1		-1/6
0…250 mbar / 0…25 kPa	02		-1/6
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	30	-1/10
0…1,6 bar / 0…160 kPa	06	31	-1/18
0…2 bar / 0…200 kPa	B3	B4	-1/18
0…2,5 bar / 0…250 kPa	07	32 (2)	-1/18
0…4 bar / 0…400 kPa	08	33 (2)	-1/25
0…5 bar / 0…500 kPa	F1	F2 (2)	-1/40
0…6 bar / 0…600 kPa	09	34 (2)	-1/40
0…10 bar / 0…1 MPa	10	35 (2)	-1/40
0…16 bar / 0…1,6 MPa	11	36	-1/40
0…20 bar / 0…2 MPa	B5	B6	-1/40
0…25 bar / 0…2,5 MPa	12	37	-1/40
0…40 bar / 0…4 MPa	13	38 (2)	-1/60
-100…0 mbar / -10…0 kPa	C4		-0,3/4
-100…100 mbar / -10…10 kPa	C5		-1/6
-200…0 mbar / -20…0 kPa (2)	D2		-1/6
-200…200 mbar / -20…20 kPa (2)	D3		-1/6
-1…1 bar / -100…100 kPa	D6		-1/10
-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 / -0,1…1,5 MPa	E2		-1/40

* Genauigkeit 0,5% (2) Not for G1" Type

ORDERING CODE

Output signal
- **1** 0…10 V 3-wires
- **4** 4…20 mA 2-wires

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

Prozessanschluss und Werkstoff
- **M** Dairy thread DN 25 DIN 11851, 1.4404
- **6** Dairy thread 32 DIN 11851, 1.4404
- **7** Dairy thread 40 DIN 11851, 1.4404
- **K** Dairy thread 40 aseptisch, 1.4404
- **N** DRD flange DN 65, 1.4404
- **F** G 1 A, ISO 228-1, 1.4404
- **5** G 1 1/2 A, ISO 228-1, 1.4404
- **L** Clamp 1", DN 25...40, 1.4404 (316L)
- **9** Others (on request)

Sensor seal
- **1** FPM (Viton), standard
- **2** NBR (Perbuan), max. 80 °C
- **3** EPDM
- **5** FFKM (Chemraz / Kalrez)
- **9** Others (on request)

Electrical connection
- **1** Connector EN 175301-803A IP 65
- **4** Connector EN 175301-803A IP 65, potted electronics
- **A** Connector M12x1 IP 65
- **B** Connector M12x1 IP 65, potted electronics
- **F** Quickon-Connector IP 65
- **G** Quickon-Connector IP 65, potted electronics
- **0** 5 m cable, IP67
- **5** 5 m cable, potted electronics, IP67
- **6** 2 m cable, IP67
- **7** 2 m cable, potted electronics, IP67
- **9** Others (on request)

Optionen
- **R** Ceramic sensor 99,9%
- **T** Minimized case volume
- **RT** Ceramic sensor 99,9% with minimized case volume

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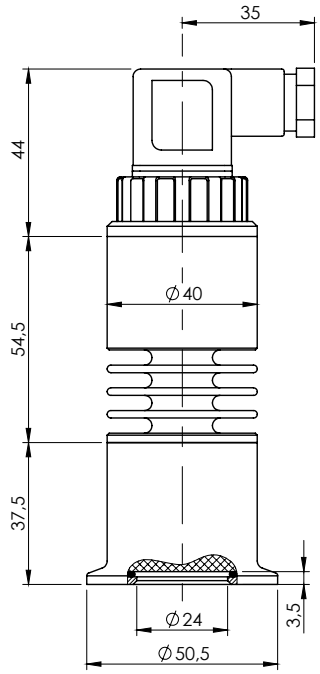
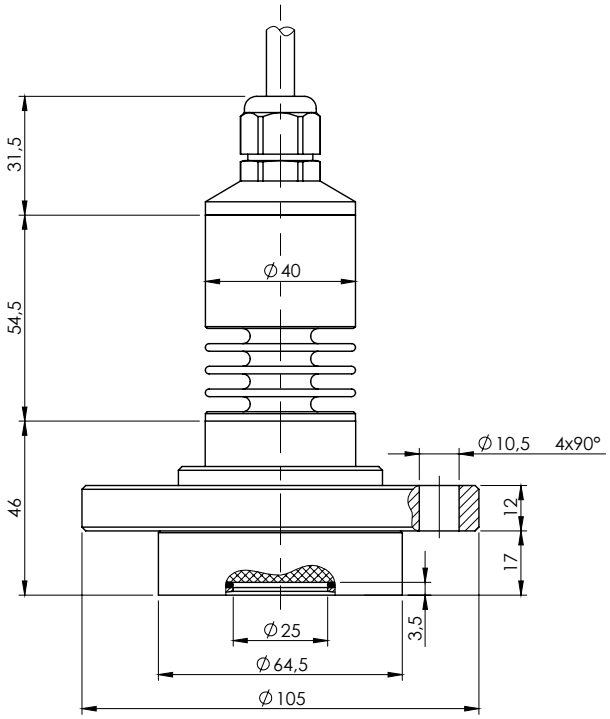
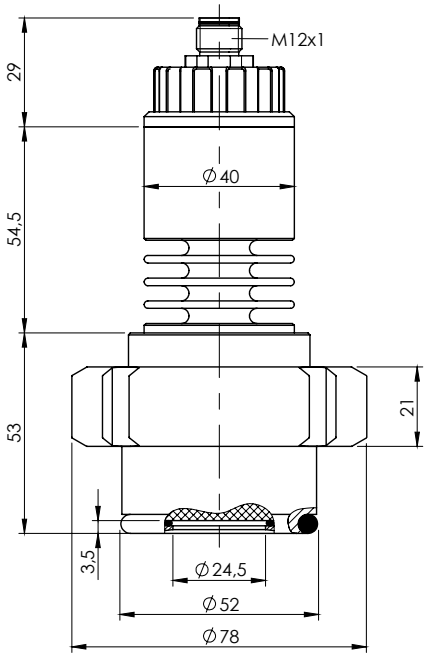
DIMENSIONS



PROCESS CONNECTION **TYPE L**

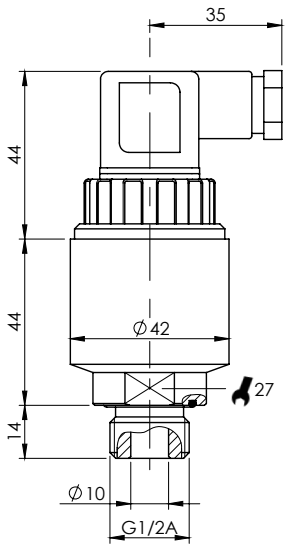


TYPE N



PROCESS CONNECTION **TYPE K**

DIMENSIONS



PROCESS CONNECTION **TYPE G2/GP**

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