

Pressure Transmitter

CTMd

With ceramic cell and DMS (wire resistance strain gauge)

Applications

Pressure transmitter models CTMd are suitable for overpressure measurement of liquid and gaseous media, which do not corrode stainless steel 303 (1.4305), Viton or aluminum oxide Al_2O_3 .

Construction

The measured pressure acts directly on a ceramic membrane that deflects when pressurised.

This deflection changes the output signal of the wire resistance strain gauge (DMS) mounted on the backside of the ceramic membrane.

The electronics integrated into the transmitter housing transform the DMS signals into an electrical standard signal of 4...20 mA or optionally 0...20 mA or 0...10 V DC.



Standard Version

Construction Type

Installation length: standard

Process Connection

G 1/2 B (1/2" BSP), stainless steel 303 (1.4305)

Measuring Cell/Sensor

Aluminum oxide Al_2O_3 (96 %) with DMS, placed inside

Sensor Sealing

FPM (Viton®)

Case

Stainless steel 303 (1.4305), degree of protection IP65

Pressure Ranges/Overload Capability (üs)

Pressure ranges	üs	Pressure ranges in bar	üs	Pressure ranges	üs
0 – 1	2	0 – 10	20	0 – 40	80
0 – 1.6	3.2	0 – 16	32	0 – 60	120
0 – 2.5	5	0 – 25	50	0 – 100	150
0 – 4	8				
0 – 6	12				

Measuring spans up to 16 bar also available for compound ranges.

Output Signal

	Supply voltage	Load impedance
4...20 mA 2-wire	6...30 V DC	($U_B - 6$ V) / 0.02 A
0...20 mA 3-wire	6...30 V DC	($U_B - 6$ V) / 0.02 A
0...10 V 3-wire	19.2...28.8 V DC	min. 2 k Ω

Measuring Accuracy

± 1 % of the measuring range

Temperature Ranges

Storage temperature: $-30 / +80$ °C ($-22 / +176$ °F)

Rated temperature: $0 - 70$ °C ($32 - 158$ °F)

Temperature Influence in the Rated Temperature Range

Zero point: < 0.7 % / 10 K

Measuring span: < 0.5 % / 10 K

Long-term Stability of Zero Point and Span

Better than ± 0.4 % p.a.

Reverse Voltage Protection

Available

Position of Installation/Position of Connection

Any

Options

- Sensor sealing NBR for ambient temperature $-30 / +60$ °C ($-22 / +140$ °F) and medium temperature $-30 / +100$ °C ($-22 / +212$ °F); other sensor sealings, e.g. EPDM, upon request
- G 1/2 B according to DIN EN 837-1 upon request
- With attached digital display model DASA according to data sheet 9912

Ordering Information

Basic model	CTMd
Pressure range	e.g. 0 – 6 bar
Connection thread	e.g. G 1/2 B
Output signal	e.g. 4...20 mA
Possible specifics	cf. above

Example: CTMd, 0 – 6 bar, 4...20 mA

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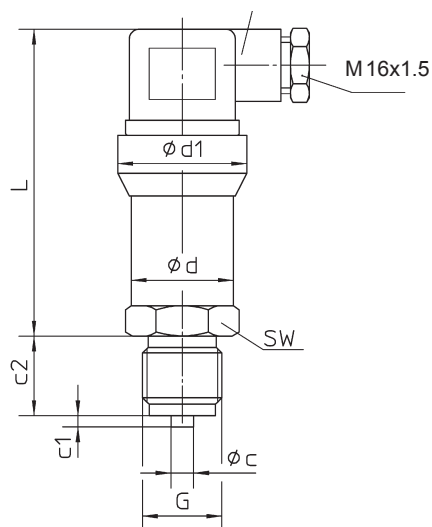
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Case Configuration, Dimensional Data and Weights, Wiring Diagram

CTMd

angular plug connection according to
DIN EN 175 301-803, construction type A

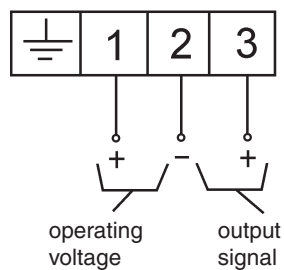


Dimensional Data (mm/inch) and Weight (kg/lb)

c	c1	c2	d	d1	G	L	SW	approx. weight
6 0.24	3 0.12	20 0.79	28 1.1	38.5 1.52	G ½ B ½" BSP	91 3.58	27 1.06	0.20 0.44

Wiring Diagram

3-wire



2-wire

