

Pressure Transmitters

With thin film measuring cell

Pressure ranges 0 – 10 bar to 0 – 1,000 bar

DTMk

Applications

Pressure transmitters model DTMk are suitable for overpressure measurement of liquid and gaseous media from 0 – 10 bar to 0 – 1,000 bar that do not corrode 1.4548 (diaphragm) and 1.4542 (process connection) stainless steel.

The construction of this robust, compact instrument allows for applications also in rough operating conditions, e.g. in hydraulic systems, in test benches, in process engineering, industry and research.

The pressure transmitters are temperature-compensated and provide a calibrated output signal.

Construction

Our pressure transmitters with thin film measuring cell stand out especially due to their robust construction. The thin film sensor is, just as the case, welded directly to the pressure connection piece. The whole instrument thus is particularly dirt-resistant and can also be applied under critical conditions.

Standard Version

Construction Type

Installation length: standard, measuring cell placed inside

Process Connection

G ¼ B (¼" BSP), 1.4542

Measuring Cell/Sensor

Thin film, diaphragm made of 1.4548 stainless steel, welded, placed inside

Case

Stainless steel, case protection type IP 67

Pressure Ranges/Overload

Overpressure 0 – 10 bar to 0 – 1,000 bar
(reference point ambient air pressure during manufacturing)

Overpressure (bar)	Overrange limit (bar)	Overpressure (bar)	Overrange limit (bar)
-1 / +9	20	0 – 100	300
-1 / +15	40	0 – 160	300
-1 / +24	40	0 – 250	600
0 – 10	20	0 – 400	600
0 – 16	40	0 – 600	1,200
0 – 25	40	0 – 1,000	1,200
0 – 40	100		
0 – 60	100		

Output Signal

4...20 mA	2-wire	9...30 V DC	Load impedance (U _B -9V)/0.02 A
0...20 mA	3-wire	9...30 V DC	(U _B -9V)/0.02 A
0...10 V	3-wire	14...30 V DC	min. 10 kΩ

Measuring Accuracy

Better than ±0.5 % of full scale (including non-linearity, hysteresis and non-repeatability)

Temperature Ranges

Storage temperature: -25 °C to +85 °C (-13 °F to +185 °F)
Rated temperature: -25 °C to +85 °C (-13 °F to +185 °F)

Temperature Influence within the Rated Temperature Range

Zero point: ≤0.3 % / 10 K
Span: ≤0.2 % / 10 K

Reference Temperature

+20 °C (+68 °F)



Long-term Stability of Zero Point and Span

Better than ±0.2 % p.a.

Zero Adjustment

Our pressure transmitters are factory-adjusted. A possible zero-adjustment can only be carried out via computer with a special software (programmable ASIC electronics). Details upon request.

Reverse Voltage Protection

Available

Electrical Connection

Circular plug connector M 12x1, IP 67 (DIN EN 60 529/IEC 529), angular cable box with 2 m die casted cable. Wiring diagram see page 2.

Position of Installation/Position of Connection

Any

EMC

DIN EN 61 000-6-3, 61 000-6-2

Options

- Process connection: - ¼" NPT, M 12x1.5
- Electrical connection: - circular plug connector M 12x1 (IP 67), angular cable box, without cable
- circular plug connector M 12x1 (IP 67), straight cable box, without cable, others upon request
- Special version: - silicone-free version
- version free of grease and oil, up to 600 bar adjustment ≤250 bar with dry air, ≥400 bar with distilled water
- oxygen version: up to max. 0 – 600 bar,
- restrictor screw in the inlet port of the connection, orifice Ø 0.3 mm (0.01")

Ordering Information

Please specify in your order:

Model: DTMk
Pressure range: e.g. 0 – 10 bar
Output signal: e.g. 4...20 mA

Example: DTMk, 0 – 10 bar, 4...20 mA

i.e. thin film pressure transmitter DTMk for overpressure 0 – 10 bar, output signal 4...20 mA, process connection G ¼ B

Our item numbers for numerous standard versions can be found in our price list.



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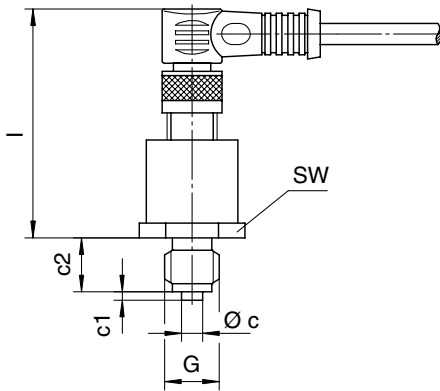
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Dimensional Data and Weight, Wiring Diagram

Standard Version

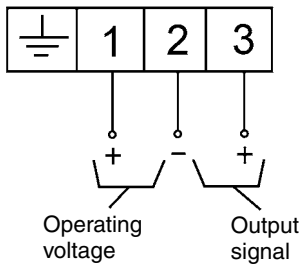
Pressure ranges up to 0 – 1,000 bar



Dimensional Data (mm/inches) and Weight (kg/lb)						
Ø c	c1	c2	G	l	SW	approx. weight
5 0.20	3 0.12	8 0.31	G ¼ B ¼" BSP	56.5 2.22	22 0.87	0.12 .26

Wiring Diagram

3-wire



2-wire

