

# Pressure Transmitters

With thin film measuring cell

Pressure ranges 0-10 bar to 0-1000 bar

DTMFB

## Applications

Pressure transmitters model DTMFB are suitable for the overpressure measurement of 0-10 bis 0-1000 bar of liquid and gaseous media that do not corrode 1.4435 (diaphragm flush welded) and 1.4542 (process connection.)

The construction of this robust, compact instrument allows an application also under hard working conditions, e.g at hydraulic systems, at test stands, in process engineering, industry and analysis. The pressure transmitters are temperature-comensated and provide a calibrated output signal.

## Construction

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

## Standard Version

### Construction Type

Installation length: standard, measuring cell placed inside

### Process Connection

According to DIN 3852 Form E made of 1.4542 with sealing ring made of NBR

G ¼ B (¼ " BSP): 0 – 60 to 0 – 600 bar

G ½ B (½ " BSP): 0 – 10 to 0 – 1000 bar

### Measuring Cell / Sensor

Thin film, welded, placed inside, upstreamed integrated chemical seal unit with flush welded diaphragm made of 1.4435, filling fluid white oil FN2

### Case

Stainless steel, case protection type IP 65

### Pressure Ranges / Overload

Overpressure 0-10 to 0-1000 bar

(reference point ambient air pressure while manufacturing)

Overpressure (bar)	Overrange limit (bar)	Overpressure (bar)	Overrange limit (bar)
-1/+ 9	20	0- 100	300
-1/+15	40	0- 160	
0- 10	20	0- 250	600
0- 16	40	0- 400	
0- 25		0- 600	1200
0- 40	100	0-1000	
0- 60		0-1600	2200
		0-2500	3200

### Output signal

4 ... 20 mA	2-wire	Power supply	Load impedance
9 ... 20 mA	3-wire	9...30 V DC	(U <sub>B</sub> -9V)/0.02 A
0 ... 10 V	3-wire	14...30 V DC	(U <sub>B</sub> -9V)/0.02 A min. 10 kΩ

### Measuring Accuracy

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

### Temperature Ranges

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

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

### Temperature Influence in the Rated Temperature Range

Zero point: ≤ 0.3% / 10 K

Measuring 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.

### Reverse Voltage Protection

Available

### Electrical Connection

Plug connector DIN EN 175301-803 construction type A, 3-pin + protective contact, case protection type IP 65 (EN 60529 / IEC 529). For assuring electromagnetic compatibility (EMC) please use a shielded cable (e.g. LP/LiMYCY). The shield has to be connected to the case or the ground terminal. Wiring diagram see reverse side.

### Position of Installation / Position of Connection

Any

### EMC

EN 61000-6-3, 61000-6-2

## Options

- Process connection:- Others upon request
- Electrical connection: - Cable feed (IP 67), 2 m cable,
  - Circular plug connector M 12 x 1 (IP 67), angular cable box, without cable, optionally with 2 m die casted cable,
  - Circular plug connector M 12 x 1 (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
- Higher temperature: - With temperature decoupler TE, approx. 30 mm, for medium temperatures > 80 °C < 140 °C, for > 140 °C upon request

## Ordering Information

Please specify in your order:

Model:	<b>DTMFB</b>
Pressure range:	e. g. <b>0-100 bar</b>
Output signal:	e. g. <b>0...20 mA</b>
Process connection:	e. g. <b>G ¼ B</b>

**Example:** DTMFB, 0-100 bar, 0...20 mA, G ¼ B that means. thin film pressure transmitter DTMFB for overpressure 0-100 bar, output signal 0 to 20 mA, process connection G ¼ B

Our item numbers for numerous standard versions can be found in our price list on page 352 ff.



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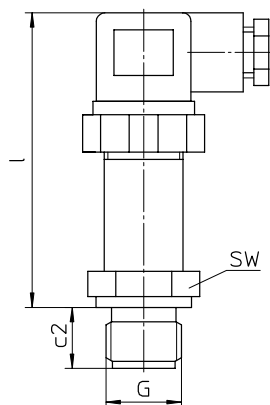
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# Dimensional Data and Weights, Wiring Diagram, Ordering Information

## Standard Versions

Pressure ranges up to 0-1000 bar

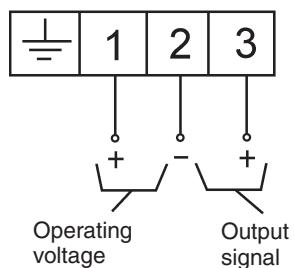


## Dimensional Data (mm / inches) and Weights (kg / lb)

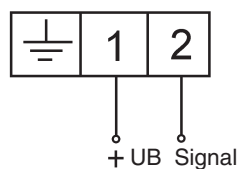
Pressure ranges:	c2	l	SW	approx. weight
G ¼ B (¼ " BSP)	13 .51	81 3.18	24 .94	0.13 0.29
G ½ B (½ " BSP)	14 .55	79 3.11	27 1.06	0.16 0.35

## Wiring Diagram

3-wire



2-wire



Technical changes, replacement of materials and errors excepted.