



# PRO Series | TCMP 1550 Coriolis Mass Flow Meter

## FEATURES

- Robust, no moving parts
- Customized installation length
- Excellent repeatability (better than  $\pm 0.05\%$ ), accuracy ( $\pm 0.1\%$ )
- Advanced transmitter technology  
Upgrade/modernize in place

## BENEFITS

- ▶ Increased productivity
- ▶ Considerable cost savings for installation
- ▶ Increased product quality
- ▶ Optimized lifecycle management

## FLOW RATE

|                              |   |
|------------------------------|---|
| Mass Flow Rate (max.):       | 1,550 kg/h [57 lb/min]                      |
| Volumetric Flow Rate (max.): | 1,550 l/h<br>[6.82 gpm, 234 oil bbl/d (US)] |
| Nominal Meter Size:          | DN6 [1/4"]                                  |

## PRESSURE RATING

|                     |
|---------------------|
| 200 bar [2,900 psi] |
| Option:             |
| 345 bar [5,000 psi] |

## ACCURACY (LIQUIDS)<sup>1)</sup>

|                               |                                       |
|-------------------------------|---------------------------------------|
| Basic Accuracy (Mass Flow):   | $\pm 0.1\%$ of flow rate              |
| Repeatability (Mass Flow):    | better than $\pm 0.05\%$ of flow rate |
| Basic Accuracy (Volume Flow): | $\pm 0.15\%$ of flow rate             |
| Repeatability (Volume Flow):  | better than $\pm 0.05\%$ of flow rate |
| Zero Stability:               | $\pm 0.01\%$ of full scale            |

## ACCURACY (GASES)

|                             |                           |
|-----------------------------|---------------------------|
| Basic Accuracy (Mass Flow): | $\pm 0.5\%$ of flow rate  |
| Repeatability (Mass Flow):  | $\pm 0.25\%$ of flow rate |

## DENSITY

|                                  |  |
|----------------------------------|--|
| Density Range:                   | up to 2,500 kg/m <sup>3</sup> [2.5 g/cm <sup>3</sup> ]         |
| Density Accuracy <sup>2)</sup> : | $\pm 1.0$ kg/m <sup>3</sup> [ $\pm 0.001$ g/cm <sup>3</sup> ]  |
| Density Repeatability:           | $\pm 0.5$ kg/m <sup>3</sup> [ $\pm 0.0005$ g/cm <sup>3</sup> ] |

## TEMPERATURE

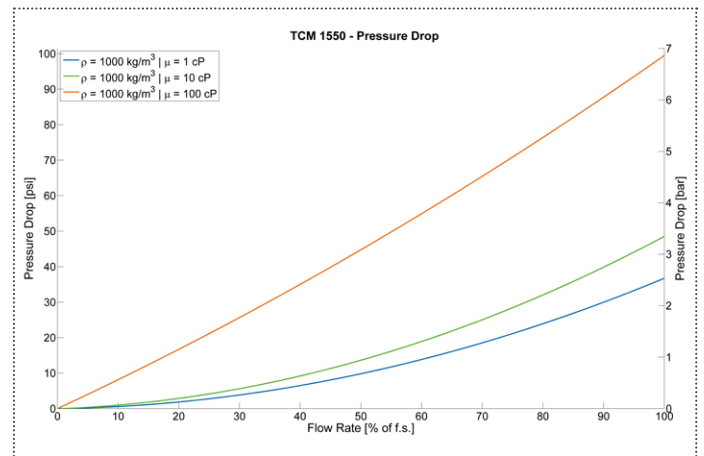
|                            |   |
|----------------------------|---|
| Process Temperature Range: | -60 °C ... +200 °C [-76 °F ... +392 °F]                                     |
| Temperature Accuracy:      | $\pm 1$ °C $\pm 0.5\%$ of reading<br>[ $\pm 1.8$ °F $\pm 0.5\%$ of reading] |
| Temperature Repeatability: | $\pm 0.2$ °C [ $\pm 0.36$ °F]   |

## MATERIALS (WETTED PARTS)

|                |                    |
|----------------|--------------------|
| Tubes:         | 1.4404 [AISI 316L] |
| Case:          | 1.4404 [AISI 316L] |
| Flow Splitter: | 1.4404 [AISI 316L] |
| Brazing Alloy: | BNi-2              |

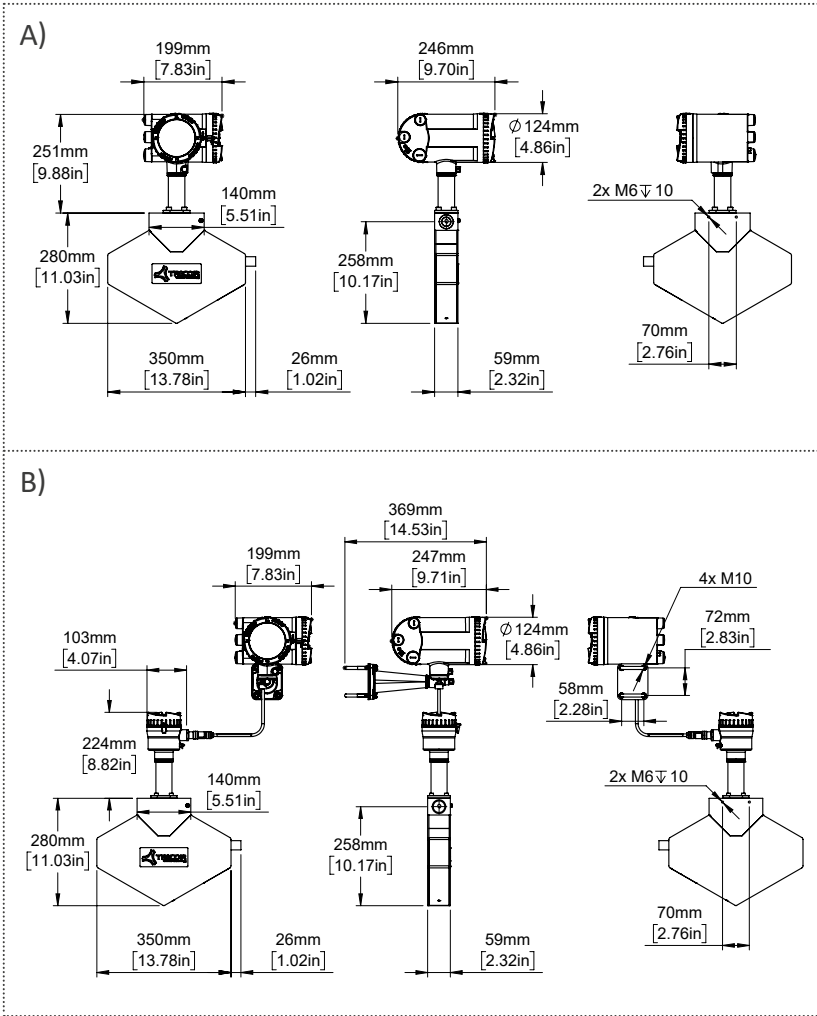
<sup>1)</sup> Stated flow accuracy combines the effects of repeatability, linearity and hysteresis.

<sup>2)</sup> The specifications refer to standard conditions (for further information see TCMP PRO series manual).





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## METER DIMENSIONS<sup>3)</sup> AND WEIGHTS

### A) Compact Version

Weight: 13.2 kg [29.1 lb]

With meter mount in aluminum diecast housing

### B) Remote Version

Weight: 15.7 kg [34.6 lb]

With junction box and remote field mount

### Standard Process Connection

G $\frac{1}{2}$ " thread (others on request)

## EX-CERTIFICATIONS<sup>4)</sup>

|        |   |
|--------|---|
| ATEX   | Zone 1:<br>II (2)1 Ex db ia [ia Ga] IIC T* Gb <sup>5)</sup> |
|        | Zone 2:<br>3G Ex nR nA IIC T4                               |
| IECEX  | Ex db ia [ia Ga] IIC T* Gb <sup>5)</sup>                    |
| cCSAus | Class 1, Div. 1: Group A - D, T* <sup>5)</sup>              |

## BASIC TRANSMITTER<sup>6)</sup>



## REMOTE MOUNT



## COMPACT MOUNT



## DISPLAY ELECTRONICS

Power Supply: 20 ... 27 V DC

100 ... 240 V AC

Graphical Display: 240 x 160 pixels

Configurable I/O: Analog, Digital, Frequency, Relay

Interfaces: PROFIBUS PA, PROFIBUS DP,

HART 7.5, Modbus RTU

Enclosure Material: Aluminum

Cable Gland:  $\frac{1}{2}$ " NPT

<sup>3)</sup> Drawing of the meter dimensions reflects one standard connection, other connections on request (Installation length can vary depending on selected connection).

<sup>4)</sup> Version dependent.

<sup>5)</sup> T\* refer to Ex-certificate.

<sup>6)</sup> Specification basic transmitter: see special TCD 9010 spec sheet.

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