



# PRO Series | TCMF 0325 Coriolis Mass Flow Meter

## FEATURES

- Robust, no moving parts
- Customized installation length
- Excellent Repeatability ( $\pm 0.05\%$ ), 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.):       | 325 kg/h [12 lb/min]              |
| Volumetric Flow Rate (max.): | 325 l/h [1.43 gpm, 49 bbl/d (US)] |
| Nominal Meter Size:          | DN4 [ $\frac{1}{8}$ "             |

## 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):    | $\pm 0.05\%$ of flow rate  |
| Basic Accuracy (Volume Flow): | $\pm 0.15\%$ of flow rate  |
| Repeatability (Volume Flow):  | $\pm 0.05\%$ 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:      | $\pm 1.0$ 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> ] |

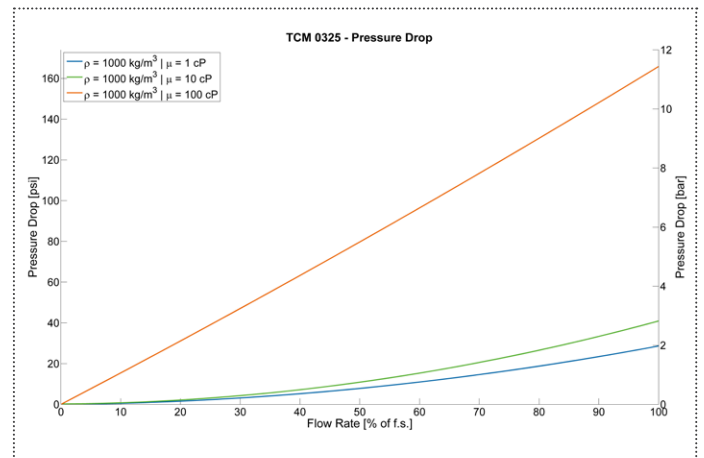
## TEMPERATURE

|                            |   |
|----------------------------|---|
| Process Temperature Range: | -40 °C ... +100 °C [-40 °F ... +212 °F]                                     |
| Option:                    | -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)

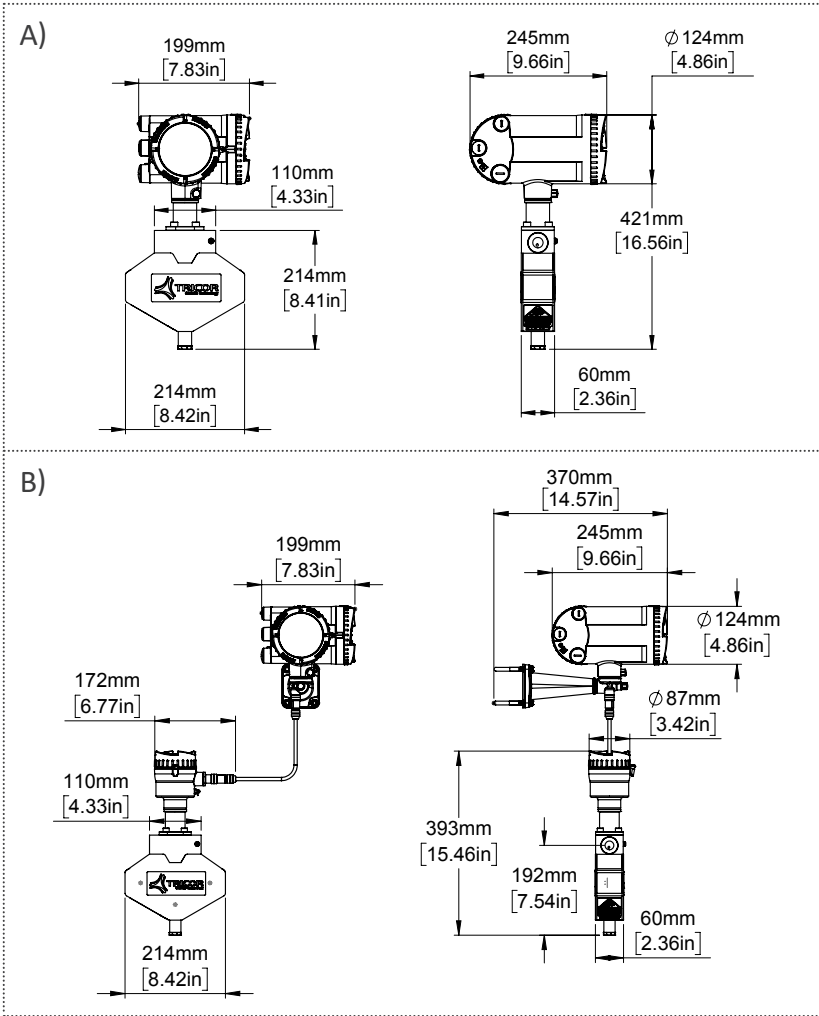
|                |                    |
|----------------|--------------------|
| Tubes:         | 1.4404 [AISI 316L] |
| Case:          | 1.4404 [AISI 316L] |
| Flow Splitter: | 1.4404 [AISI 316L] |
| Brazing Alloy: | BNi-2              |

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





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## METER DIMENSIONS<sup>2)</sup> AND WEIGHTS

### A) Compact Version

Weight: 8.6 kg [19.0 lb]

With meter mount in aluminum diecast housing

### B) Remote Version

Weight: 11.1 kg [24.5 lb]

With junction box and remote field mount

### Standard Process Connection

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

## EX-CERTIFICATIONS<sup>6)</sup>

|              |   |
|--------------|---|
| ATEX (Ex)    | Zone 1:<br>Group IIC or IIB, T2...T6                      |
| ATEX (Exn)   | Zone 2:<br>II 3G Ex nA IIC T2...T6 Gc                     |
| IECEX (Ex)   | Zone 1:<br>Group IIC or IIB, T2...T6                      |
| cCSAus (Ex1) | Class 1, Division 1:<br>Group A, B, C, D or C, D, T2...T6 |

## BASIC TRANSMITTER<sup>3)</sup>



## REMOTE MOUNT<sup>5)</sup>



## COMPACT MOUNT<sup>4)</sup>



## DISPLAY ELECTRONICS

Power Supply: 20 ... 27 V DC  $\pm$  10%  
100 ... 240 V AC  $\pm$  10 %

Graphical Display: 240 x 160 pixels  
Configurable I/O: Analog, Digital, Frequency, Relay  
Interfaces: PROFIBUS PA, PROFIBUS DP,  
HART 7.5, Modbus RS485 RTU

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

<sup>2)</sup> Drawing of the Meter Dimensions reflects one standard connection, other connections on request (Installation length can vary depending on selected connection).

<sup>3)</sup> Weight: 1.4 kg [3.1 lb].

<sup>4)</sup> Weight: 4.5 kg [9.9 lb].

<sup>5)</sup> Weight: 7.0 kg [15.4 lb] with 3 m cable.

<sup>6)</sup> Release pending.

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