# TCM 5500 TRICOR Coriolis Mass Flow Meter

### Common Uses

The TCM 5500 Coriolis flow meter is a U-shape tube design and is rated for process pressures up to 345 bar (5000 psi). The U tube design has great overall accuracy, zero stability, and pressure drop. The simple self-draining U-shape tube provides for easy cleaning & flushing. These features plus the robust, no moving parts design make this meter well suited to many applications, including:

Hydraulic oil



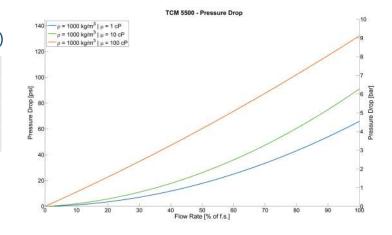
## **Technical Specifications**

| Nominal Meter Size          | 1/2"   DN15 mm   |
|-----------------------------|--|
| Maximum Flow Rate           | 5500 kg/hr   202 lbs/min   5500 l/hr   24.22 gpm   830 bbl/d (US)                      |
| Pressure Rating             | 5,000 psi   345 bar  |
| Measuring Accuracy*         | ±0.1% of flow rate (Liquids)   ±1.0% of flow rate (Gases)                              |
| Repeatability               | ±0.05% of flow rate (Liquids)   ±0.25% of flow rate (Gases)                            |
| Zero Stability              | ±0.01% of full scale   |
| Density Range               | up to 2,500 kg/m <sup>3</sup> (2.5 g/cm <sup>3</sup> )                                 |
| Process Temperature Range   | Standard: -40°F to 212°F (-40°C to 100°C)   Optional: -76°F to 392°F (-60°C to 200°C)  |
| Temperature Accuracy        | $\pm 1.8$ °F $\pm 0.5$ % of reading   $\pm 1.0$ °C $\pm 0.5$ % of reading              |
| Temperature Repeatability   | ±0.36°F   ±0.2°C   |
| Calibration                 | 5-point logarithmic calibration  |
| Standard Process Connection | 1/2" to 1" 150lb to 900lb ANSI flanges (consult factory for additional flange options) |

<sup>\*</sup>Stated flow accuracy combines the effects of repeatability, linearity and hysteresis. The specifications refer to standard conditions (for further information see TCM CLASSIC series manual).

# Materials of Construction (Wetted Parts)

| Tubes         | 316L Stainless Steel (DIN 1.4404) |
|---------------|-----------------------------------|
| Case          | 316L Stainless Steel (DIN 1.4404) |
| Flow Splitter | 316L Stainless Steel (DIN 1.4404) |
| Brazing Alloy | BNi-2                             |

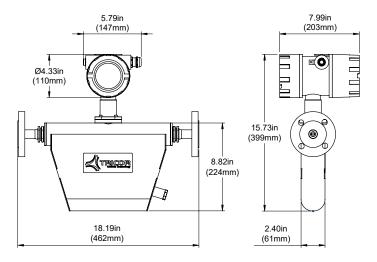




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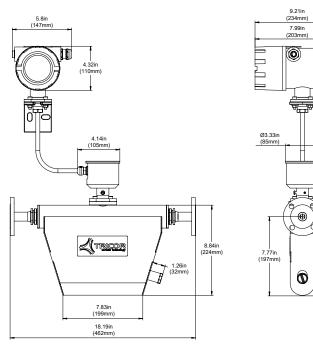
# Meter Dimensions\* & Weights

\*Drawing of the Meter Dimensions reflects one standard connection, other connections on request (Installation length can vary depending on selected connection).



### **Compact Model**

(with meter mount in aluminum diecast housing) Weight: 18.7 lb (8.5 kg)



#### **Remote Model**

(with junction box and remote field mount transmitter) Weight: 21.6 lb (9.8 kg)

### Certifications

| CSA* | <u>Compact</u> :                            |
|------|---|
|      | Cl. I, Div. 1: Groups A-D: T4 (US, Can)     |
|      | Ex db ia IIC T4 Gb (Can)                    |
|      | Cl. I, Zone 1, AEx db ia IIC T4 Gb          |
|      | Remote:                                     |
|      | Sensor:                                     |
|      | Cl. I, Div. 1, Groups A-D: T4T2 (US, Can)   |
|      | Ex ia IIC T4T2 Ga (Can)                     |
|      | Cl. I, Zone 0, AEx ia IIC T4T2 Ga (US)      |
|      | Transmitter:                                |
|      | Cl. I, Div. 1, Groups A-D: T4 (US, Can)     |
|      | Ex db [ia Ga] IIC T4 Gb (Can)               |
|      | Cl. I, Zone 1, AEx db[ia Ga] IIC T4 Gb (US) |

CI. I, Zone 1, AEX db[Ia Ga] II
\*CSA certification is only available in diecast aluminum housing.

| ATEX            | Zone 1: Compact: II 2G Ex db ia IIC T4 Gb<br>Remote: Sensor: II 1G Ex ia IIC T4T2 Ga<br>Transmitter: II 2(1)G Ex db [ia Ga] IIC T4 Gb<br>Zone 2 (All): II 3G Ex nA IIC T4 Gc |
|-----------------|--|
| IECEx           | Compact: Ex db ia IIC T4 Gb<br>Remote: Sensor: Ex ia IIC T4T2 Ga<br>Transmitter: Ex db [ia Ga] IIC T4 Gb   |
| EAC (TR-CU)     | Group IIC or IIB, T2T4   |
| KGS<br>(Korean) | Compact: Ex d (ai) IIC T4 Remote: Sensor: Ex ia IIC T4 Transmitter: Ex d (ia) IIC T4   |

#### Electronics

| Power Supply | 24 V DC ±20% or 90 264 V AC      |
|--------------|----------------------------------|
| Outputs      | Analog, Frequency, Pulse, Status |
| Interfaces   | RS485 RTU (Modbus), HART®        |
| Cable Gland  | M20   1/2" NPT                   |

3D STEP Models are available upon request of factory. Products may be subject to change without notice. Contact factory for the most up-to-date product information.

