

TCM 0650 TRICOR Coriolis Mass Flow Meter

Common Uses

The TCM 0650 Coriolis flow meter with a Diamond-shape tube design offers the best overall performance of any tube shape, including the best signal-to-noise ratio and reduced effects from external vibration. This results in improved zero stability. These features plus the robust, no moving parts design make this meter well suited to many applications, including:

- Dosing systems
- Paint processes
- Chemical injection



Technical Specifications

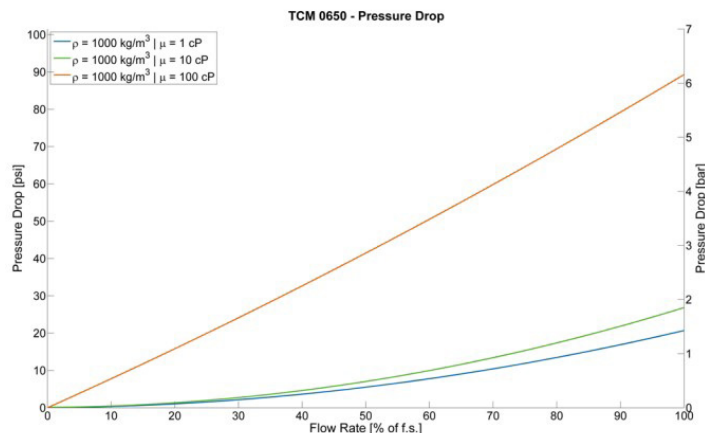
Nominal Meter Size	1/8" DN4 mm
Maximum Flow Rate	650 kg/hr 24 lbs/min 650 l/hr 2.86 gpm 98 bbl/d (US)
Pressure Rating	2,900 psi 200 bar
Measuring Accuracy*	±0.1% of flow rate (Liquids) ±1.0% of flow rate (Gases)
Repeatability	±0.05% of flow rate (Liquids) ±0.25% of flow rate (Gases)
Zero Stability	±0.01% of full scale
Density Range	up to 2,500 kg/m ³ (2.5 g/cm ³)
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	±1.8°F ±0.5% of reading ±1.0°C ±0.5% of reading
Temperature Repeatability	±0.36°F ±0.2°C
Calibration	Comes with a NIST-traceable calibration certificate**
Standard Process Connection	Female thread 0.5" NPT

*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).

**Contact factory for custom 10-point calibration.

Materials of Construction (Wetted Parts)

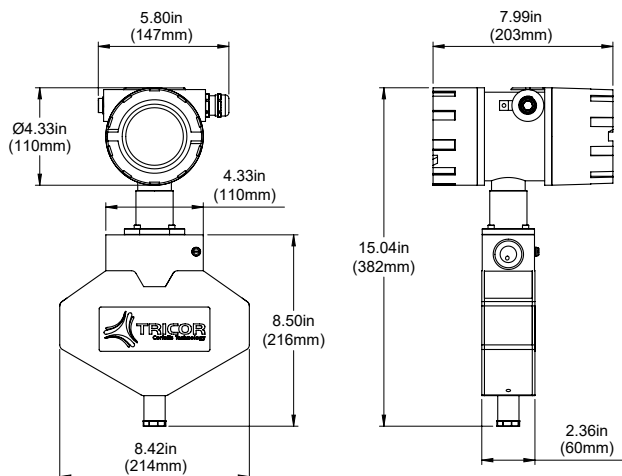
Tubes	316L Stainless Steel (DIN 1.4404)
Case	316L Stainless Steel (DIN 1.4404)
Flow Splitter	316L Stainless Steel (DIN 1.4404)
Brazing Alloy	BNi-2



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Meter Dimensions* & Weights

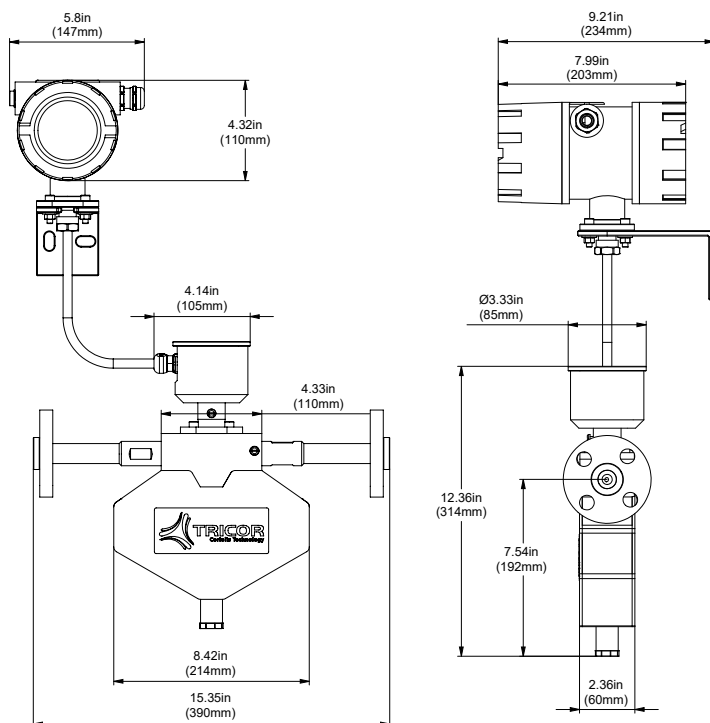
*Drawing of the Meter Dimensions reflects one standard connection, other connections on request (Installation length can vary depending on selected connection).



Compact Model

(with meter mount in aluminum diecast housing)

Weight: 15.4 lb (7 kg)



Remote Model

(with junction box and remote field mount transmitter)

Weight: 18.3 lb (8.3 kg)

Certifications

CSA*	Compact:
	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: T4...T2 (US, Can)
	Ex ia IIC T4...T2 Ga (Can)
	Cl. I, Zone 0, AEx ia IIC T4...T2 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)

*CSA certification is only available in diecast aluminum housing.

ATEX	Zone 1: Compact: II 2G Ex db ia IIC T4 Gb Remote: Sensor: II 1G Ex ia IIC T4...T2 Ga Transmitter: II 2(1)G Ex db [ia Ga] IIC T4 Gb Zone 2 (All): II 3G Ex nA IIC T4 Gc
IECEX	Compact: Ex db ia IIC T4 Gb Remote: Sensor: Ex ia IIC T4...T2 Ga Transmitter: Ex db [ia Ga] IIC T4 Gb
EAC (TR-CU)	Group IIC or IIB, T2...T4
KGS (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 $\pm 20\%$ 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.

End-of-Life Disposal:

At the end of its service life, this product and its associated electronics should **not be discarded with municipal solid waste**. We strongly recommend recycling the unit in accordance with **all applicable local, state, and federal regulations**. Electronic components may qualify as universal waste and should be handled through an appropriate recycling or collection program. Responsible recycling supports our commitment to environmental stewardship under **ISO 14001**.