

# TCM 230K TRICOR Coriolis Mass Flow Meter

## Common Uses

The TCM 230K Coriolis flow meter with a U 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:

- Water measurement
- Loading & unloading large containment vessels
- Crude oil



## Technical Specifications

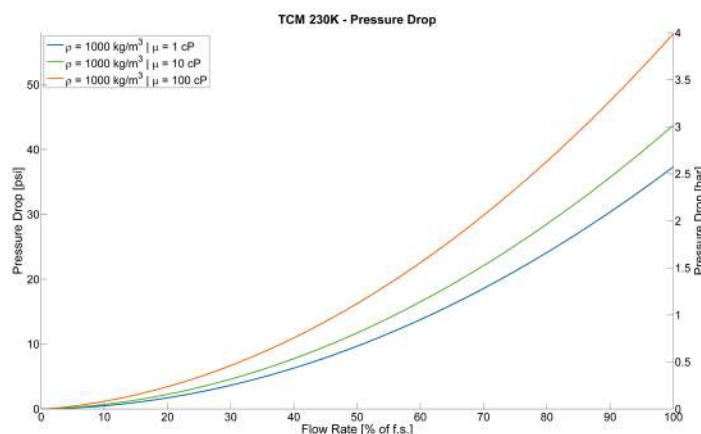
Nominal Meter Size	3"   DN80 mm
Maximum Flow Rate	230,000 kg/hr   8,450 lbs/min   230,000 l/hr   1,013 gpm   34,720 bbl/d (US)
Pressure Rating	1450 psi   100 bar
Measuring Accuracy*	±0.15% of flow rate (Liquids)   ±0.5% of flow rate (Gases)
Repeatability	±0.05% of flow rate (Liquids)   ±0.25% of flow rate (Gases)
Zero Stability	±0.015% 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	±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	3" to 4" 150lb to 900lb ANSI flanges (consult factory for additional flange options)

\*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)

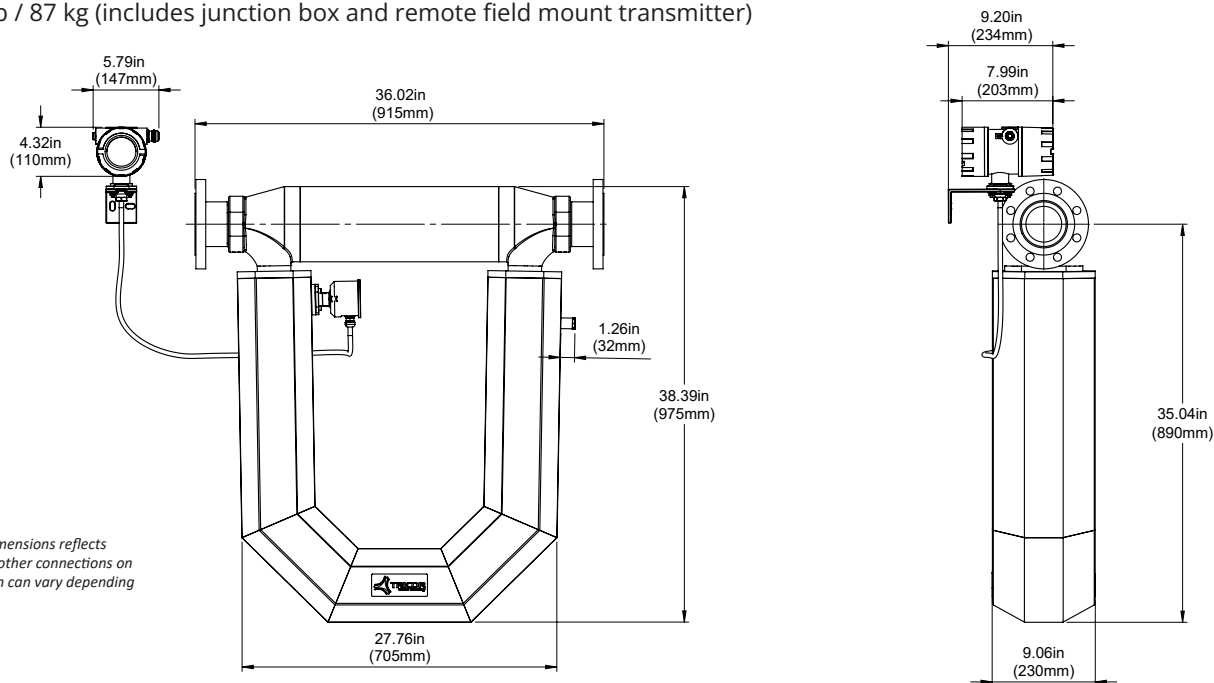
Tubes	316L Stainless Steel (DIN 1.4404)
Case	316L Stainless Steel (DIN 1.4404)
Flow Splitter	CF3M (DIN 1.4409)



# TCM 230K TRICOR Coriolis Mass Flow Meter

## Meter Dimensions\* & Weights

Weight: 194.4 lb / 87 kg (includes junction box and remote field mount transmitter)



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

## Certifications

CSA*	<b>Sensor:</b> Cl. I, Div. 1, Groups C & D: T4...T2 (US, Can) Ex ia IIC T4...T2 Ga (Can) Cl. I, Zone 0, AEx ia IIC T4...T2 Ga (US)
	<b>Transmitter:</b> Cl. I, Div. 1, Groups C & 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	<b>Zone 1:</b> <b>Sensor:</b> II 1G Ex ia IIC T4...T2 Ga <b>Transmitter:</b> II 2(1)G Ex db [ia Ga] IIC T4 Gb <b>Zone 2:</b> II 3G Ex nA IIC T4 Gc
IECEX	<b>Sensor:</b> Ex ia IIC T4...T2 Ga <b>Transmitter:</b> Ex db [ia Ga] IIC T4 Gb
EAC (TR-CU)	Group IIC or IIB, T2...T4
KGS (Korean)	<b>Sensor:</b> Ex ia IIC T4 <b>Transmitter:</b> 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.