



CLASSIC Series | TCM 3100 Coriolis Mass Flow Meter

FEATURES

- Robust, no moving parts for long life
- Custom flow connectors & installation lengths
- Excellent repeatability ($\pm 0.05\%$ of flow rate)
- High Pressure Option: 345 bar [5,000 psi]¹⁾

BENEFITS

- ▶ Increased productivity, lower maintenance
- ▶ Lower Installation cost
- ▶ Increased product quality
- ▶ Broad applications: dosing, paint, chemical injection

FLOW RATE

Mass Flow Rate (max.): 3,100 kg/h [114 lb/min]
 Volumetric Flow Rate (max.): 3,100 l/h
 [13.65 gpm, 468 bbl/d (US)]
 Nominal Meter Size: DN6 [1/4"]

PRESSURE RATING

200 bar [2,900 psi]
 (option: 345 bar [5,000 psi])¹⁾

ACCURACY (LIQUIDS)²⁾

Basic Accuracy (Mass Flow)³⁾: $\pm 0.3\%$ (option: $\pm 0.1\%$) of flow rate
 Repeatability (Mass Flow): $\pm 0.05\%$ of flow rate
 Basic Accuracy (Volume Flow)³⁾: $\pm 0.4\%$ (option: $\pm 0.15\%$) 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)³⁾: $\pm 1\%$ (option: $\pm 0.5\%$) of flow rate
 Repeatability (Mass Flow): $\pm 0.25\%$ of flow rate

DENSITY

Density Range: up to 2,500 kg/m³ [2.5 g/cm³]
 Density Accuracy³⁾: ± 5.0 kg/m³ (option: ± 1.0 kg/m³)
 [± 0.005 g/cm³ (option: ± 0.001 g/cm³)]
 Density Repeatability: ± 0.5 kg/m³ [± 0.0005 g/cm³]

TEMPERATURE

Process Temperature Range: -40 °C ... +100 °C [-40 °F ... +212 °F]
 Option: -60 °C ... +200 °C [-76 °F ... +392 °F]
 Temperature Accuracy: ± 1 °C $\pm 0.5\%$ of reading
 [± 1.8 °F $\pm 0.5\%$ of reading]
 Temperature Repeatability: ± 0.2 °C [± 0.36 °F]

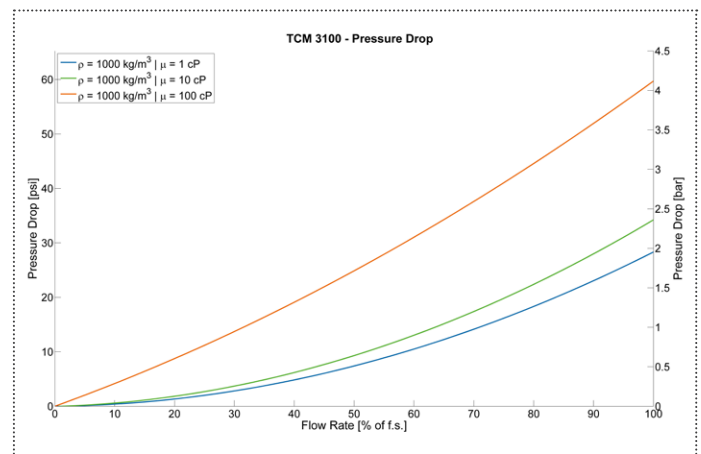
MATERIALS (WETTED PARTS)

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

¹⁾ The 200 bar standard pressure rating is per ASME. The 345 bar option is non-ASME rated.

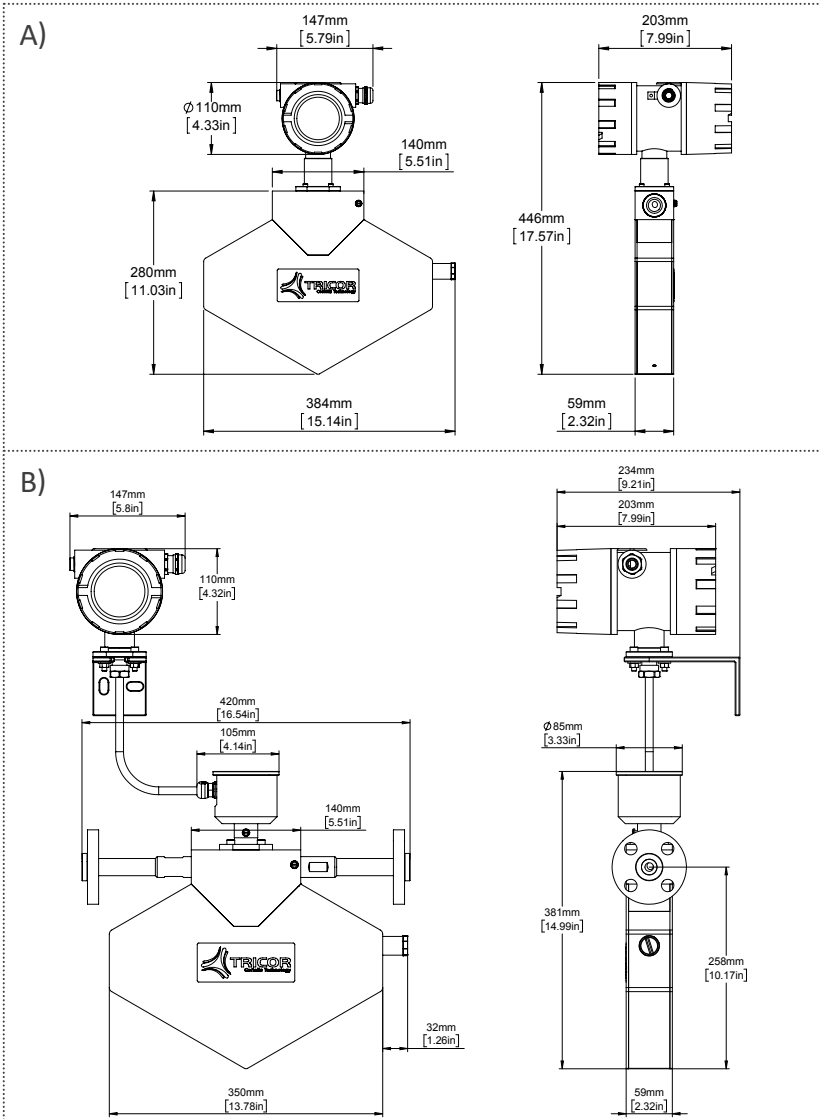
²⁾ Stated flow accuracy combines the effects of repeatability, linearity and hysteresis.

³⁾ Calibration certificate options for higher accuracy are available.





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METER DIMENSIONS⁴⁾ AND WEIGHTS

A) Compact Version

Weight: 11.6 kg [25.6 lb]

With meter mount in aluminum diecast housing

B) Remote Version

Weight: 12.9 kg [28.4 lb]

With junction box and remote field mount

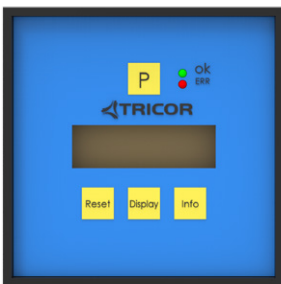
Standard Process Connection

G½" thread (others on request)

EX-CERTIFICATIONS

ATEX (Ex)	Zone 1: Group IIC or IIB, T2...T4
ATEX (Exn)	Zone 2: II 3G Ex nA IIC T2...T4 Gc
IECEX (Ex)	Zone 1: Group IIC or IIB, T2...T4
cCSAus (Ex1) ⁷⁾	Class 1, Division 1: Group A, B, C, D or C, D, T2...T4
ATEX + IECEX + cCSAus triple approval (Ex3) ⁷⁾⁸⁾	Zone 1: Group IIC or IIB, T2...T4 Class 1, Division 1: Group A, B, C, D or C, D, T2...T4
EAC (TR-CU) ⁷⁾	Group IIC or IIB, T2 ... T4

PANEL MOUNT⁵⁾



REMOTE MOUNT⁶⁾



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 | ½" NPT

⁴⁾ Drawing of the Meter Dimensions reflects one standard connection, other connections on request (Installation length can vary depending on selected connection).

⁵⁾ Weight: 0.4 kg [0.88 lb].

⁶⁾ Weight with aluminum diecast housing: 3.8 kg [8.4 lb] with 3 m cable, Weight with 1.4404 [AISI 316L] housing: 6.15 kg [13.56 lb].

⁷⁾ For Ex1, Ex3, EAC (TR-CU) the electronic is only available in aluminum housing.

⁸⁾ Only with remote electronics.

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