

TCM 0100 Series Coriolis Mass Flow Meter

Benefits:

- > Ultra low flow rate down to 5 cc/min (300 grams/hr, 0.001 gallons/min)
- > Rated at 5,000 psi
- > No filter requirement
- > Fast response time
- > Simple to clean/flush
- > Multiple connections available (NPT, AutoClave, tubing)
- > No moving parts – less wear, easier maintenance

Pressure Rating: 345 bar, 5,000 psi

Specifications:

Mass Flow Rate (max.): 50 kg/h, 1.84 lb/min
Volumetric Flow Rate (max.): 50 l/h, 0.22 gpm, 7.55 bbl/d (US)
Tube Inner Diameter: 0.06 in, 1.52 mm
Weight: 2 lb, 0.9 kg

Accuracy:¹⁾

Basic Accuracy [Mass Flow]: $\pm 0.2\%$ of flow rate
Basic Accuracy [Volume Flow]: $\pm 0.25\%$ of flow rate
Repeatability: $\pm 0.1\%$ of flow rate
Zero Stability: $\pm 0.02\%$ of full scale

Density:

Density Range: up to 4,500 kg/m³, 4.5 g/cm³
Density Accuracy: Liquids ± 1.0 kg/m³, ± 0.001 g/cm³
Density Repeatability: ± 0.5 kg/m³, ± 0.0005 g/cm³

Temperature:

Temperature Range (Fluid): -40 °F ... +180 °F (-40 °C ... +80 °C)
Temperature Accuracy: ± 1.8 °F $\pm 0.5\%$ of reading
(± 1 °C $\pm 0.5\%$ of reading)
Temperature Repeatability: ± 0.36 °F (± 0.2 °C)

Process Pressure Effect:²⁾

Mass Flow Accuracy: $\pm 0.001\%$ of rate per psi³⁾
Density Accuracy: ± 0.00003 g/cm³ per psi³⁾

Materials of Construction [wetted parts]:

Wetted Parts: 1.4404/AISI 316L
All-Welded Design

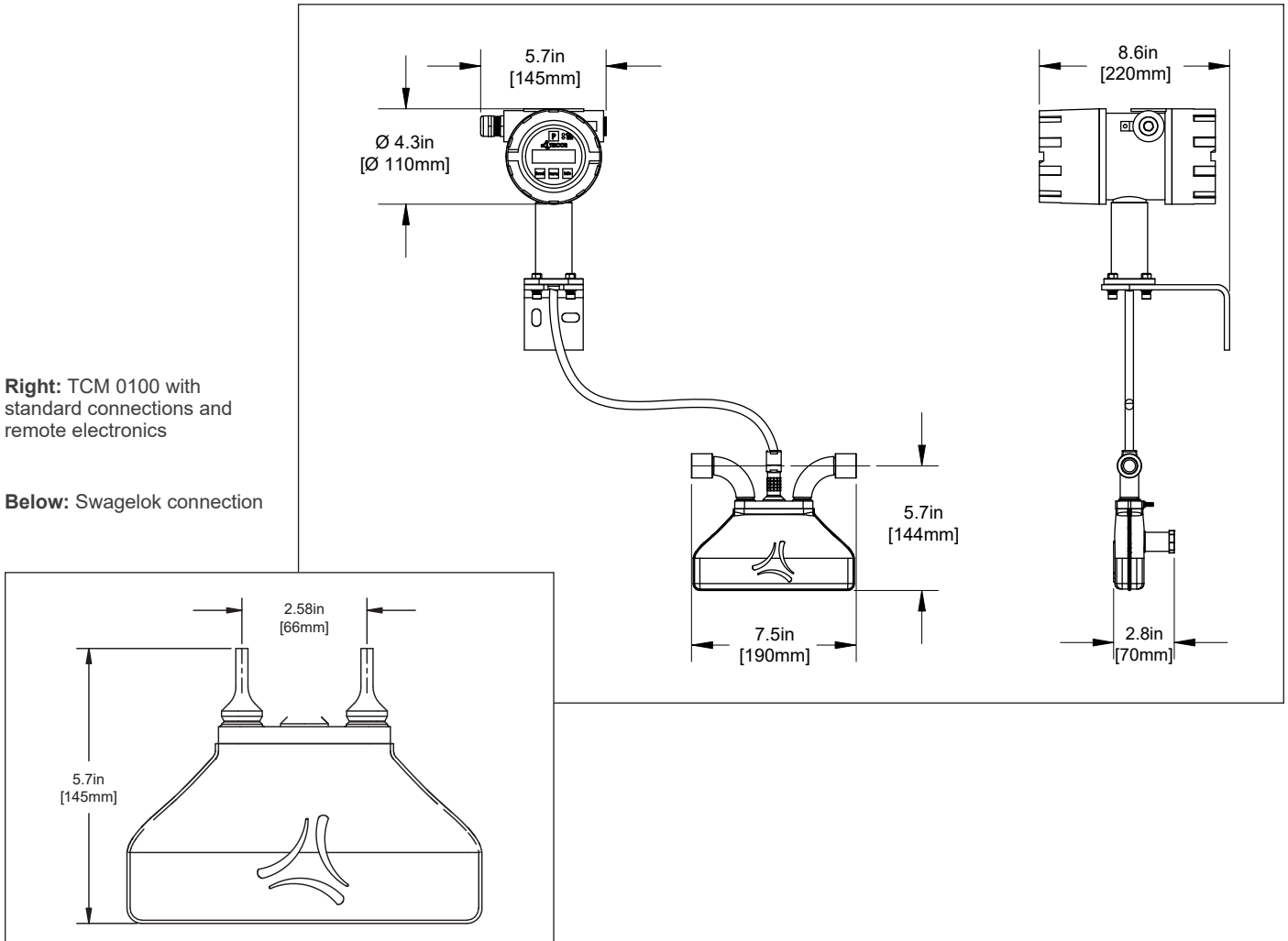


¹⁾ Stated flow accuracy combines the effects of repeatability, linearity and hysteresis.

²⁾ TCE 8000 electronics offers pressure input to eliminate process pressure effect.

³⁾ 1 psi = 0.06894 bar.

Meter Dimensions:⁴⁾



Electronics:

The TCE 8000 transmitter offered with the TRICOR Coriolis Mass Flow Meter is also available with other mounting options.

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
EAC (TR-CU) ⁷⁾	Group IIC or IIB, T2 ... T4

Panel Mount⁵⁾



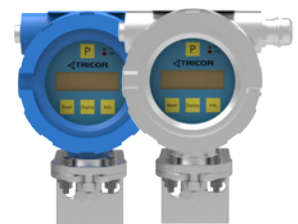
Power Supply:

Outputs:

Interface:

More options on request

Remote Field Mount⁶⁾



24 V DC $\pm 20\%$ or 90 ... 264 V AC

Analog, Frequency, Pulse, Status

RS485 RTU (Modbus), HART[®]

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/8.3 lb with 3 m cable, Weight with 1.4404/AISI 316L housing: 6.15 kg/13.56 lb.

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



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