

# 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:<sup>1)</sup>

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/m<sup>3</sup>, 4.5 g/cm<sup>3</sup>  
Density Accuracy: Liquids  $\pm 1.0$  kg/m<sup>3</sup>,  $\pm 0.001$  g/cm<sup>3</sup>  
Density Repeatability:  $\pm 0.5$  kg/m<sup>3</sup>,  $\pm 0.0005$  g/cm<sup>3</sup>

## Temperature:

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

## Process Pressure Effect:<sup>2)</sup>

Mass Flow Accuracy:  $\pm 0.001\%$  of rate per psi<sup>3)</sup>  
Density Accuracy:  $\pm 0.00003$  g/cm<sup>3</sup> per psi<sup>3)</sup>

## Materials of Construction [wetted parts]:

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

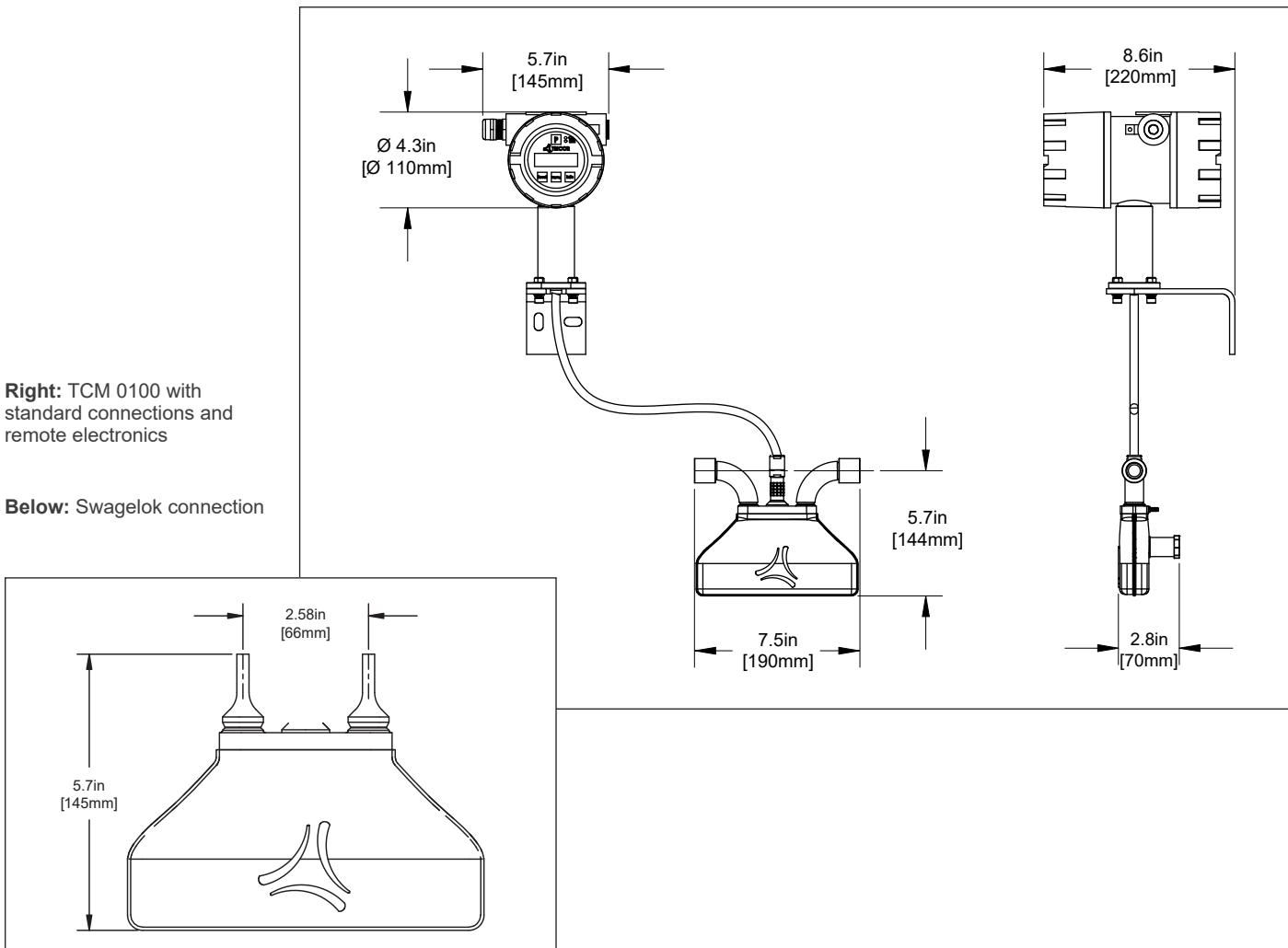


<sup>1)</sup> Stated flow accuracy combines the effects of repeatability, linearity and hysteresis.

<sup>2)</sup> TCE 8000 electronics offers pressure input to eliminate process pressure effect.

<sup>3)</sup> 1 psi = 0.06894 bar.

## Meter Dimensions:<sup>4)</sup>



## 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) <sup>7)</sup>	Group IIC or IIB, T2 ... T4

## Panel Mount<sup>5)</sup>



Power Supply:

Outputs:

Interface:

More options on request

## Remote Field Mount<sup>6)</sup>



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

Analog, Frequency, Pulse, Status

RS485 RTU (Modbus), HART<sup>®</sup>

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

<sup>5)</sup> Weight: 0.4 kg/0.88 lb.

<sup>6)</sup> 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.

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



www.tricorflow.com

N & S AMERICA:

AW-Lake Company

2440 W. Corporate Preserve Dr. #600, Oak Creek WI 53154, USA, Tel.: +1 414 574 4300

SINGAPORE:

TASI Flow Souteast Asia, Representative Office (RO) Singapore

1003 Bukit Merah Central #06-32, Singapore 159836, UEN: T15RF0080G, P: +65 6274 1130

CHINA:

TASI Flow China

Rm. 2429, JinYuan Office Building, No. 36, CN- BeiYuan Road, Beijing 100012, P.R. CHINA, Tel.:+86 10 520 037 38

Rest of the World:

KEM Küppers Elektromechanik GmbH, Liebigstraße 5, 85757 Karlsfeld, Germany, Tel.:+49 8131 59391-0