



PRO Series | TCMP 3100 Coriolis Mass Flow Meter

FEATURES

- Robust, no moving parts
- Customized installation length
- Excellent repeatability (better than $\pm 0.05\%$), accuracy ($\pm 0.1\%$)
- Advanced transmitter technology
Upgrade/modernize in place

BENEFITS

- ▶ Increased productivity
- ▶ Considerable cost savings for installation
- ▶ Increased product quality
- ▶ Optimized lifecycle management

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 oil bbl/d (US)]
Nominal Meter Size:	DN6 [1/4"]

PRESSURE RATING

200 bar [2,900 psi]
Option:
345 bar [5,000 psi]

ACCURACY (LIQUIDS)¹⁾

Basic Accuracy (Mass Flow):	$\pm 0.1\%$ of flow rate
Repeatability (Mass Flow):	better than $\pm 0.05\%$ of flow rate
Basic Accuracy (Volume Flow):	$\pm 0.15\%$ of flow rate
Repeatability (Volume Flow):	better than $\pm 0.05\%$ of flow rate
Zero Stability:	$\pm 0.01\%$ of full scale

ACCURACY (GASES)

Basic Accuracy (Mass Flow):	$\pm 0.5\%$ of flow rate
Repeatability (Mass Flow):	$\pm 0.25\%$ of flow rate

DENSITY

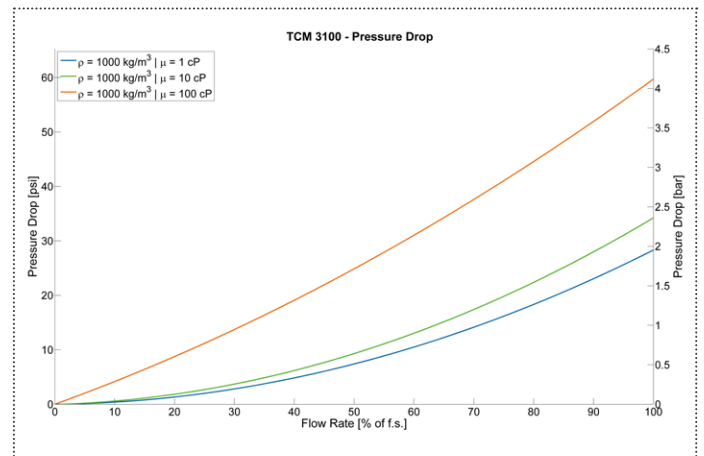
Density Range:	up to 2,500 kg/m ³ [2.5 g/cm ³]
Density Accuracy ²⁾ :	± 1.0 kg/m ³ [± 0.001 g/cm ³]
Density Repeatability:	± 0.5 kg/m ³ [± 0.0005 g/cm ³]

TEMPERATURE

Process Temperature Range:	-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

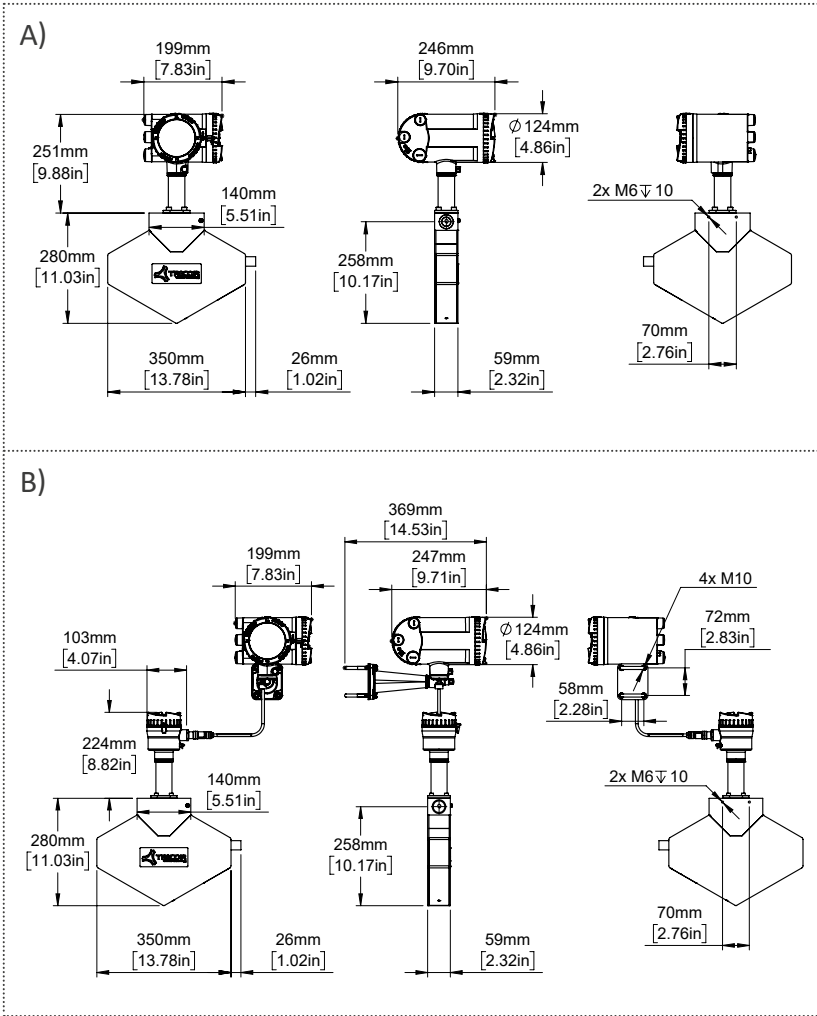


¹⁾ Stated flow accuracy combines the effects of repeatability, linearity and hysteresis.

²⁾ The specifications refer to standard conditions (for further information see TCMP PRO series manual).



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METER DIMENSIONS³⁾ AND WEIGHTS

A) Compact Version

Weight: 13.2 kg [29.1 lb]

With meter mount in aluminum diecast housing

B) Remote Version

Weight: 15.7 kg [34.6 lb]

With junction box and remote field mount

Standard Process Connection

G $\frac{1}{2}$ " thread (others on request)

EX-CERTIFICATIONS⁴⁾

ATEX	Zone 1: II (2)1 Ex db ia [ia Ga] IIC T* Gb ⁵⁾
	Zone 2: 3G Ex nR nA IIC T4
IECEX	Ex db ia [ia Ga] IIC T* Gb ⁵⁾
cCSAus	Class 1, Div. 1: Group A - D, T* ⁵⁾

BASIC TRANSMITTER⁶⁾



REMOTE MOUNT



COMPACT MOUNT



DISPLAY ELECTRONICS

Power Supply:	20 ... 27 V DC 100 ... 240 V AC
Graphical Display:	240 x 160 pixels
Configurable I/O:	Analog, Digital, Frequency, Relay
Interfaces:	PROFIBUS PA, PROFIBUS DP, HART 7.5, Modbus RTU
Enclosure Material:	Aluminum
Cable Gland:	$\frac{1}{2}$ " NPT

³⁾ Drawing of the meter dimensions reflects one standard connection, other connections on request (Installation length can vary depending on selected connection).

⁴⁾ Version dependent.

⁵⁾ T* refer to Ex-certificate.

⁶⁾ Specification basic transmitter: see special TCD 9010 spec sheet.

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