



PRO Series | TCMP 230K Coriolis Mass Flow Meter

FEATURES

- Robust, no moving parts
- Customized installation length
- Excellent Repeatability ($\pm 0.05\%$), 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.):	230,000 kg/h [8,450 lb/min]
Volumetric Flow Rate (max.):	230,000 l/h [1,013 gpm, 34,720 bbl/d (US)]
Nominal Meter Size:	DN80 [3"]

PRESSURE RATING	100 bar [1,450 psi]
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ACCURACY (LIQUIDS)¹⁾

Basic Accuracy (Mass Flow) ²⁾ :	$\pm 0.1\%$ of flow rate
Repeatability (Mass Flow):	$\pm 0.05\%$ of flow rate
Basic Accuracy (Volume Flow) ²⁾ :	$\pm 0.15\%$ 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) ²⁾ :	$\pm 0.5\%$ 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]

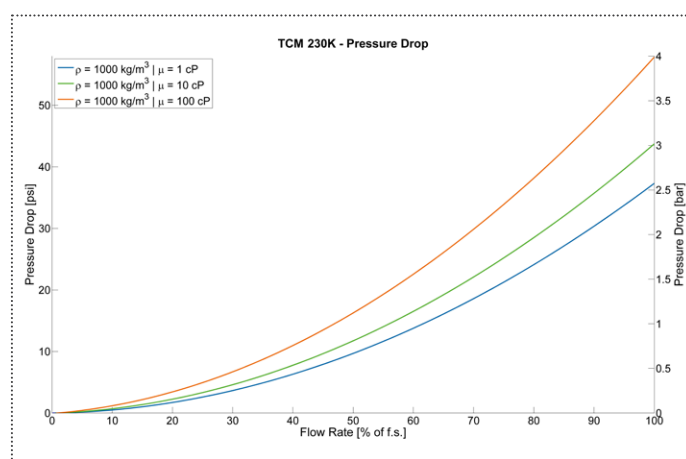
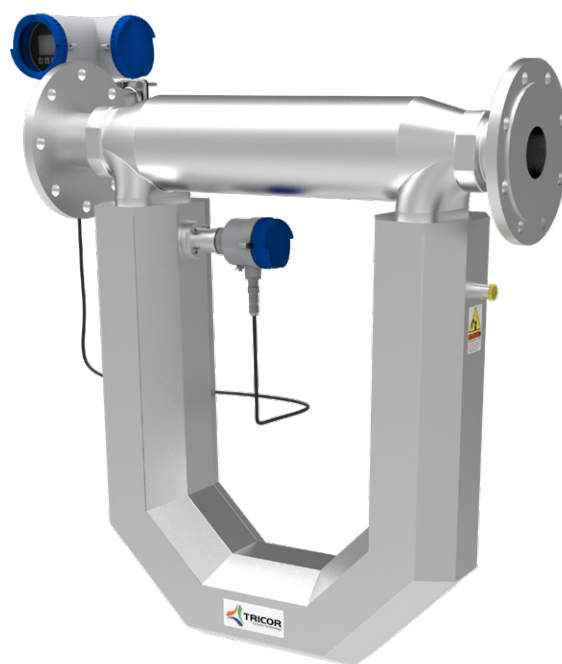
TEMPERATURE

Process Temperature Range:	-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:	CF3M [1.4409]

Option:	NACE MR 0175/0103 compliant
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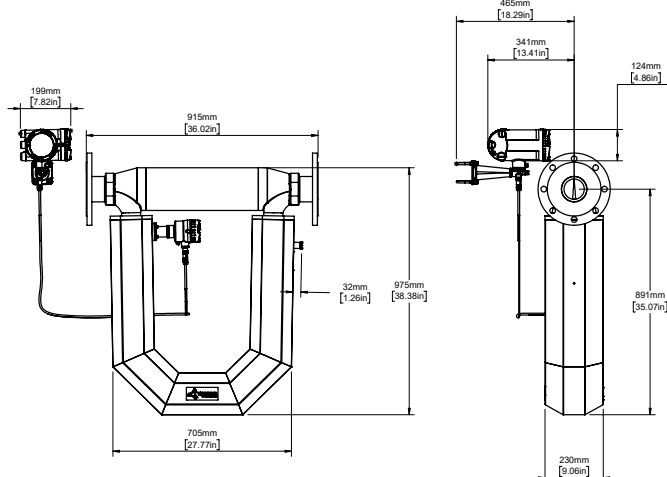


¹⁾ Stated flow accuracy combines the effects of repeatability, linearity and hysteresis.



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A)



METER DIMENSIONS²⁾ AND WEIGHTS

A) Remote Version

Weight: 90.2 kg [98.9 lb]

With junction box and remote field mount

Standard Process Connection

DN80 PN40 [3" ANSI CL 300] (others on request)

EX-CERTIFICATIONS⁶⁾

ATEX (Ex)	Zone 1: Group IIC or IIB, T2...T6
ATEX (Exn)	Zone 2: II 3G Ex nA IIC T2...T6 Gc
IECEx (Ex)	Zone 1: Group IIC or IIB, T2...T6
cCSAus (Ex1)	Class 1, Division 1: Group A, B, C, D or C, D, T2...T6

BASIC TRANSMITTER³⁾



REMOTE MOUNT⁵⁾



COMPACT MOUNT⁴⁾



DISPLAY ELECTRONICS

Power Supply:	20 ... 27 V DC \pm 10% 100 ... 240 V AC \pm 10 %
Graphical Display:	240 x 160 pixels
Configurable I/O:	Analog, Digital, Frequency, Relay
Interfaces:	PROFIBUS PA, PROFIBUS DP, HART 7.5, Modbus RS485 RTU
Enclosure Material:	Aluminum
Cable Gland:	1/2" NPT

²⁾ Drawing of the Meter Dimensions reflects one standard connection, other connections on request (Installation length can vary depending on selected connection).

³⁾ Weight: 1.4 kg [3.1 lb].

⁴⁾ Weight: 4.5 kg [9.9 lb].

⁵⁾ Weight: 7.0 kg [15.4 lb] with 3 m cable.

⁶⁾ Release pending.

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