



PRO Plus Series | TCMQ 018K Coriolis Mass Flow Meter

FEATURES

- Fast dosage, short response time (max. 10 ms)
- 100 Hz refresh rate for all outputs
- Extremely short installation length
- High zero stability drift-free
- Empty pipe detection

BENEFITS

- ▶ High dosing accuracy
- ▶ Suitable for pump monitoring, fast control circuits
- ▶ Best fit in most system configurations
- ▶ Accuracy combined with long-term stability
- ▶ Extensive diagnostics and self-monitoring

FLOW RATE

Mass Flow Rate (max.):	17,700 kg/h [650 lb/min]
Volumetric Flow Rate (max.):	17,700 l/h [78.0 gpm, 2,670 oil bbl/d (US)]
Nominal Meter Size:	DN25 [1"]

PRESSURE RATING 100 bar [1,450 psi]

ACCURACY (LIQUIDS)¹⁾

Basic Accuracy (Mass Flow):	±0.1 % of flow rate
Repeatability (Mass Flow):	±0.05 % of flow rate
Basic Accuracy (Volume Flow):	±0.5 % (option: up to ±0.1 %) of flow rate
Repeatability (Volume Flow):	±0.05 % of flow rate
Zero Stability:	±0.01 % of full scale

ACCURACY (GASES)

Basic Accuracy (Mass Flow):	±0.35 % of flow rate
Repeatability (Mass Flow):	±0.05 % of flow rate

DENSITY

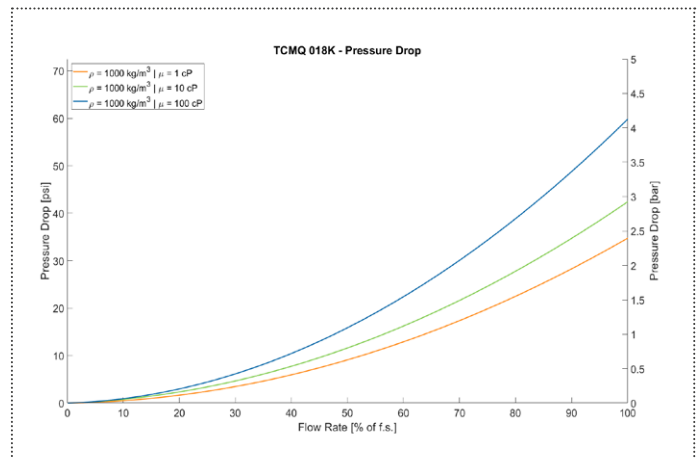
Density Range:	up to 5,000 kg/m ³ [5.0 g/cm ³]
Density Accuracy:	±5.0 kg/m ³ (option: ±0.5 kg/m ³) [±0.005 g/cm ³ (option: ±0.0005 g/cm ³)]
Density Repeatability:	±0.25 kg/m ³ [±0.00025 g/cm ³]
Brix:	0.1 °Brix (1,000/m ³)

TEMPERATURE

Process Temperature Range:	-60 °C ... +200 °C [-76 °F ... +392 °F]
Temperature Accuracy:	±0.5 °C ±0.25 % of reading [±0.9 °F ±0.25 % of reading]

MATERIALS (WETTED PARTS)

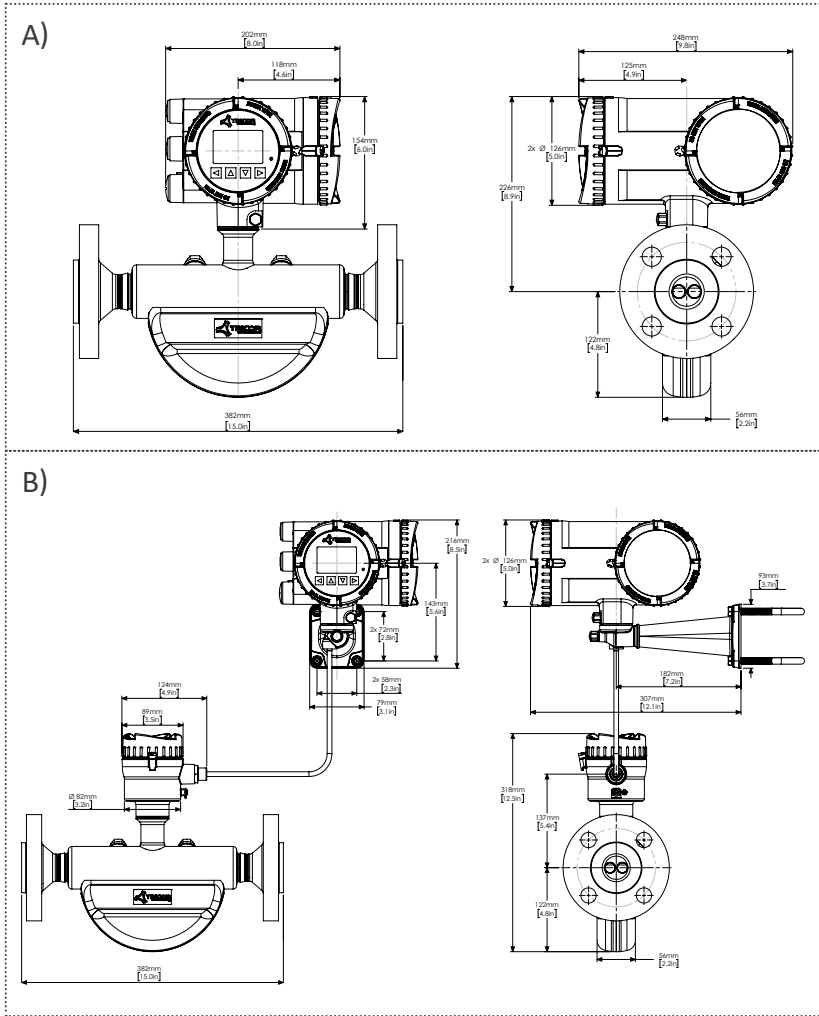
Case:	1.4301 [AISI 304]
Tubes:	1.4435 [AISI 316L]
Flow Splitter:	1.4404 [AISI 316L]



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



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METER DIMENSIONS²⁾ AND WEIGHTS

A) Compact Version

Weight: 12.5 kg [27.6 lb]

With meter mount in aluminum diecast housing

B) Remote Version

Weight: 15.0 kg [33.1 lb]

With junction box and remote field mount

Standard Process Connection (others on request)

DN25 – EN 1092-1 B1, PN40

[ASME 1" B16.5 Class 150 / 300]

EX-CERTIFICATIONS³⁾

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

BASIC TRANSMITTER⁴⁾



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 PA⁵⁾, PROFIBUS DP⁵⁾,
HART 7.5, Modbus RS485 RTU

Enclosure Material: Aluminum
Cable Gland: ½" NPT

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

³⁾ Release pending.

⁴⁾ Specification basic transmitter: see special TCD 9010 spec sheet.

⁵⁾ Available autumn 2019.

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