



CLASSIC Series | TCM 028K Coriolis Mass Flow Meter

FEATURES

- Robust, no moving parts for long life
- Custom flow connectors & installation lengths
- Excellent repeatability (± 0.05 % of flow rate)
- Optional Net Oil functionality

BENEFITS

- ▶ Increased productivity, less maintenance
- ▶ Lower installation cost
- ▶ Increased product quality
- ▶ Simpler whole solution for Net Oil without PLC/RTU

FLOW RATE

Mass Flow Rate (max.):	28,000 kg/h [1,029 lb/min]
Volumetric Flow Rate (max.):	28,000 l/h [123.3 gpm, 4,227 oil bbl/d (US)]
Nominal Meter Size:	DN25 [1"]

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

Basic Accuracy (Mass Flow) ²⁾ :	± 0.3 % (option: up to ± 0.1 %) of flow rate
Repeatability (Mass Flow):	± 0.05 % of flow rate
Basic Accuracy (Volume Flow) ²⁾ :	± 0.3 % (option: up to ± 0.15 %) of flow rate
Repeatability (Volume Flow):	± 0.05 % of flow rate
Zero Stability:	± 0.01 % of full scale

ACCURACY (GASES)

Basic Accuracy (Mass Flow) ²⁾ :	± 1 % (option: up to ± 0.5 %) of flow rate
Repeatability (Mass Flow):	± 0.25 % of flow rate

DENSITY

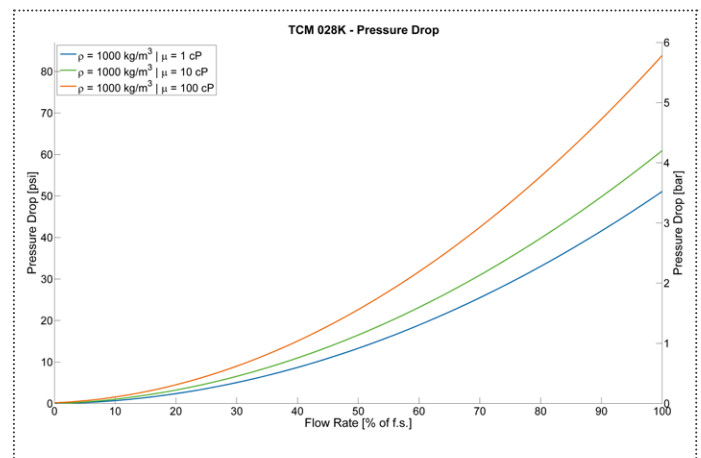
Density Range:	up to 2,500 kg/m ³ [2.5 g/cm ³]
Density Accuracy ²⁾ :	± 1.0 kg/m ³ [± 0.001 g/cm ³]
Density Repeatability:	± 0.5 kg/m ³ [± 0.0005 g/cm ³]

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 ± 0.5 % of reading [± 1.8 °F ± 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 [AISI 316L]
Brazing Alloy:	BNi-2

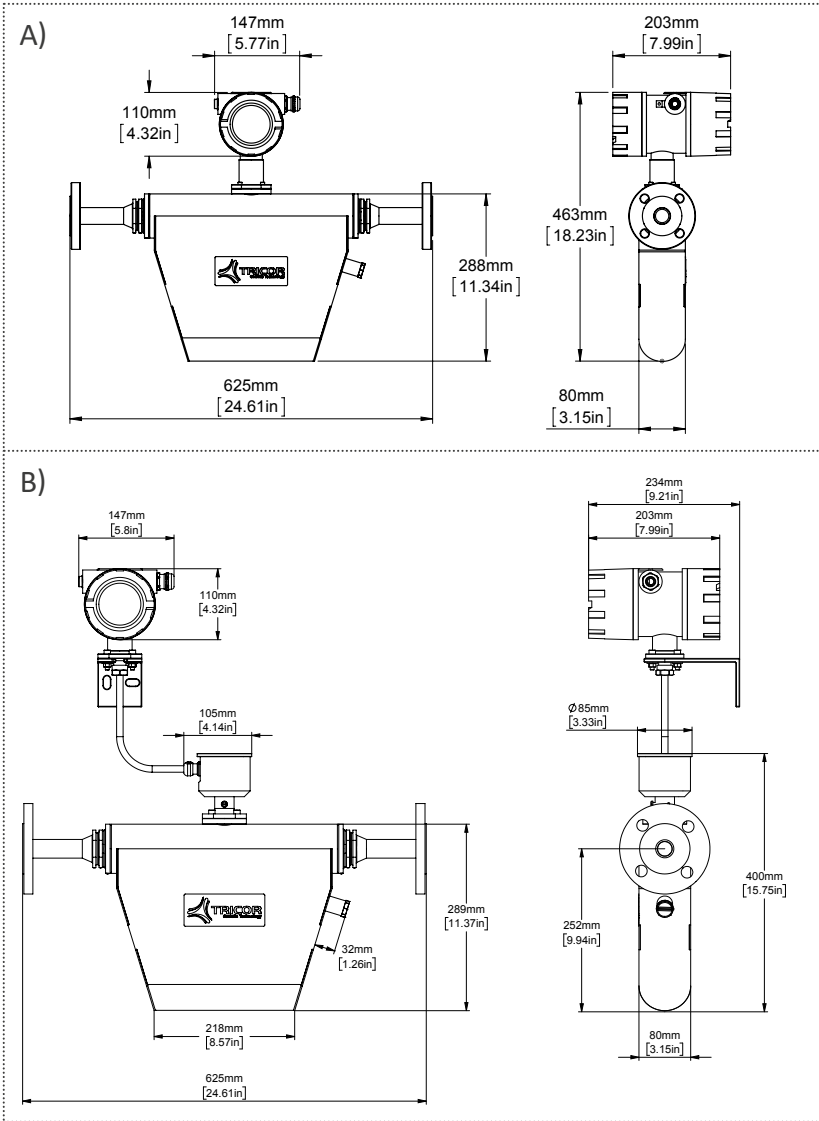


¹⁾ Stated flow accuracy combines the effects of repeatability, linearity and hysteresis.

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



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METER DIMENSIONS³⁾ AND WEIGHTS

A) Compact Version

Weight: 13.1 kg [28.9 lb]

With meter mount in aluminum diecast housing

B) Remote Version

Weight: 14.4 kg [31.7 lb]

With junction box and remote field mount

Standard Process Connection

DN25 PN40 [1" ANSI CL 300] (others on request)

APPROVALS & CERTIFICATIONS

ATEX Zone 1 IECEX	Compact version: II 2G Ex db ia IIB T4 Gb Remote version⁵⁾: Sensor: II 1G Ex ia IIB T4...T2 Ga Transm.: II 2(1)G Ex db [ia Ga] IIB T4 Gb
Atex Zone 2	All versions: II 3G Ex nA IIC T4
cCSAus ⁴⁾	Compact version: Kl. 1, Div. 1, Gruppe C, D: T4 (US, Can) Ex db ia IIB T4 Gb (Can) Remote version⁵⁾: Sensor: Kl. 1, Div. 1, Gruppe C, D: T4...T2 (US, Can) Ex ia IIB T4...T2 Ga (Can) Transm.: Kl. 1, Div. 1, Gruppe C, D: T4 (US, Can) Ex db [ia Ga] IIB T4 Gb (Can)
EAC (TR-CU)	Compact version: 1Ex d [ia] IIB T4 Remote version⁵⁾: Sensor: 1Ex ia IIB T4...T2 X Transm.: 1Ex d [ia] IIB T4
KGS (Korean)	Compact version: Ex d [ia] IIB T4 Remote version⁵⁾: Sensor: Ex ia IIB T4 Transm.: Ex d [ia] IIB T4

PANEL MOUNT⁶⁾



REMOTE MOUNT⁷⁾



ELECTRONICS

Power Supply: 24 V DC or 100 ... 240 V AC (version dependent)
 Outputs: Analog, Frequency, Pulse, Status
 Interfaces: RS485 RTU (Modbus), HART®
 Cable Gland: M20 | ½" NPT

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

⁴⁾ For cCSAus the electronic is only available in aluminum housing.

⁵⁾ Only wall mounting, not panel mounting.

⁶⁾ Weight: 0.4 kg [0.88 lb].

⁷⁾ Weight with aluminum diecast housing: 3.8 kg [8.4 lb] with 3 m cable, Weight with 1.4404 [AISI 316L] housing: 6.15 kg [13.56 lb].

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