CLASSIC Series | TCM 065K 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.): 65,000 kg/h [2,388 lb/min]
- Volumetric Flow Rate (max.): 65,000 l/h [286.2 gpm, 9,812 oil bbl/d (US)]
- Nominal Meter Size: DN40 [1½”]

PRESSURE RATING
- 100 bar [1,450 psi]

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

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\(^1\) 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 DIMENSIONS**

**A) Compact Version**
- Weight: 35.2 kg (77.6 lb)
  With meter in aluminum diecast housing

**B) Remote Version**
- Weight: 36.5 kg (80.5 lb)
  With junction box and remote field mount

**Standard Process Connection**
- DN50 PN40 [2” ANSI CL 300] (others on request)

**APPROVALS & CERTIFICATIONS**

**ATEX Zone 1**
- **IECEx**
  - Compact version: II 2G Ex db ia IIB T4 Gb
  - Remote version:
    - 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 IIB T4

**cCSAus**
- Compact version: Cl. 1, Div. 1, Group C, D: T4 (US, Can)
  - Ex db ia IIB T4 Gb (Can)
- Remote version:
  - Sensor: Cl. 1, Div. 1, Group C, D: T4...T2 (US, Can)
  - Ex ia IIB T4...T2 Ga (Can)
  - Transm.: Cl. 1, Div. 1, Group C, D: T4 (US, Can)
  - Ex db [ia Ga] IIB T4 Gb (Can)

**EAC (TR-CU)**
- Compact version: 1Ex d ia IIB T4 Gb X
- Remote version:
  - Sensor: 0Ex ia IIB T4...T2 Ga X
  - Transm.: 1Ex d [ia Ga] IIB T4 Gb X

**KGS (Korean)**
- Compact version: Ex d [ia] IIB T4
- Remote version:
  - Sensor: Ex ia IIB T4
  - Transm.: Ex d [ia] IIB T4

**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

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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.