



# CLASSIC Series | TCM 028K Coriolis Mass Flow Meter

## FEATURES

- Robust, no moving parts for long life
- Custom flow connectors & installation lengths
- Excellent repeatability ( $\pm 0.05$  % 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 bbl/d (US)]
Nominal Meter Size:	DN25 [1"]

PRESSURE RATING	100 bar [1,450 psi]
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## ACCURACY (LIQUIDS)<sup>1)</sup>

Basic Accuracy (Mass Flow) <sup>2)</sup> :	$\pm 0.3$ % (option: $\pm 0.1$ %) of flow rate
Repeatability (Mass Flow):	$\pm 0.05$ % of flow rate
Basic Accuracy (Volume Flow) <sup>2)</sup> :	$\pm 0.4$ % (option: $\pm 0.15$ %) 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) <sup>2)</sup> :	$\pm 1$ % (option: $\pm 0.5$ %) of flow rate
Repeatability (Mass Flow):	$\pm 0.25$ % of flow rate

## DENSITY

Density Range:	up to 2,500 kg/m <sup>3</sup> [2.5 g/cm <sup>3</sup> ]
Density Accuracy <sup>2)</sup> :	$\pm 5.0$ kg/m <sup>3</sup> (option: $\pm 1.0$ kg/m <sup>3</sup> ) [ $\pm 0.005$ g/cm <sup>3</sup> (option: $\pm 0.001$ g/cm <sup>3</sup> )]
Density Repeatability:	$\pm 0.5$ kg/m <sup>3</sup> [ $\pm 0.0005$ g/cm <sup>3</sup> ]

## TEMPERATURE

Process Temperature Range:	-40 °C ... +100 °C [-40 °F ... +212 °F] Option: -60 °C ... +200 °C [-76 °F ... +392 °F]
Temperature Accuracy:	$\pm 1$ °C $\pm 0.5$ % of reading [ $\pm 1.8$ °F $\pm 0.5$ % of reading]
Temperature Repeatability:	$\pm 0.2$ °C [ $\pm 0.36$ °F]

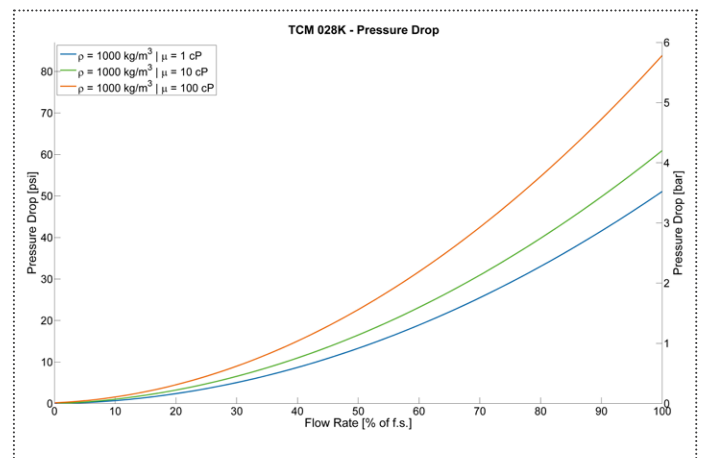
## MATERIALS (WETTED PARTS)

Tubes:	1.4404 [AISI 316L]
Case:	1.4404 [AISI 316L]
Flow Splitter:	CF3M [AISI 316L]

Option:	
Brazing Alloy:	BNi-2
Fully Welded:	1.4404 [AISI 316L]

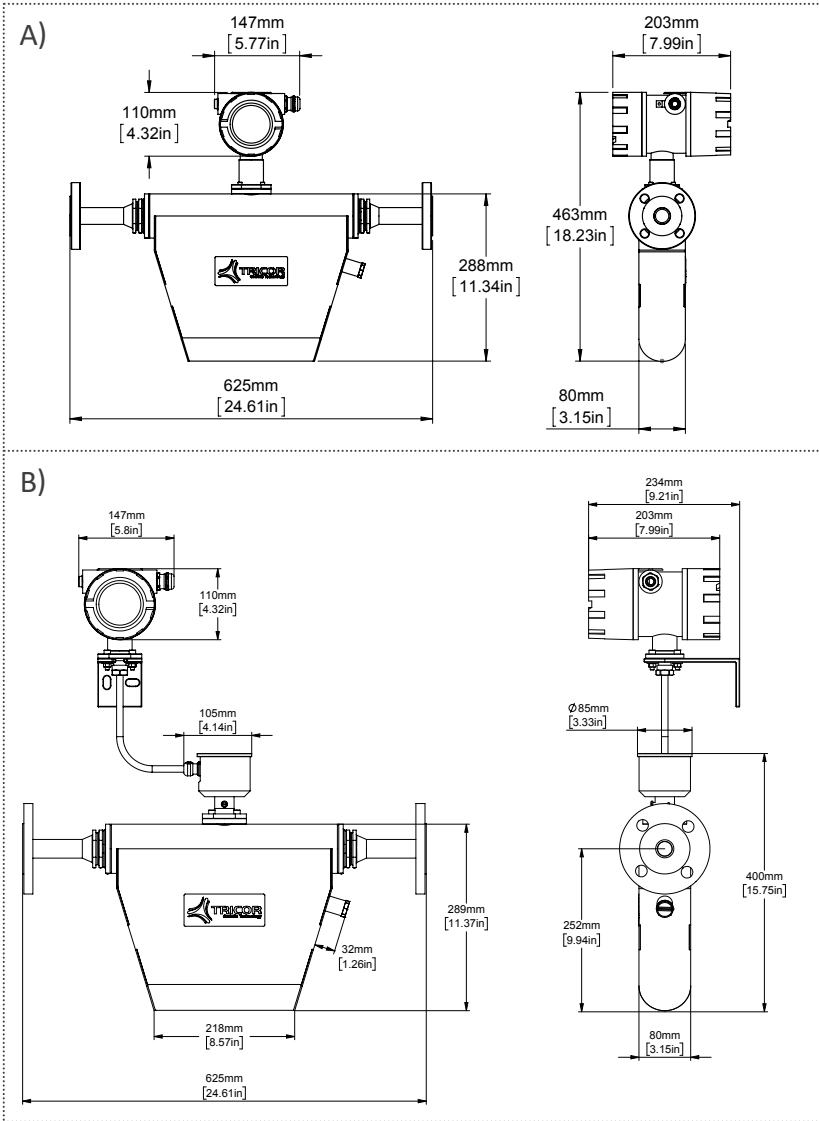
<sup>1)</sup> Stated flow accuracy combines the effects of repeatability, linearity and hysteresis.

<sup>2)</sup> Calibration certificate options for higher accuracy are available.





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## METER DIMENSIONS<sup>3)</sup> 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

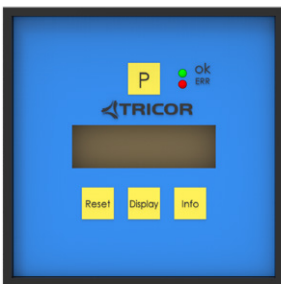
### Standard Process Connection

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

## EX-CERTIFICATIONS

ATEX (Ex)	Zone 1: Group IIC or IIB, T2...T4
ATEX (Exn)	Zone 2: II 3G Ex nA IIC T2...T4 Gc
IECEX (Ex)	Zone 1: Group IIC or IIB, T2...T4
cCSAus (Ex1) <sup>6)</sup>	Class 1, Division 1: Group A, B, C, D or C, D, T2...T4
ATEX + IECEX + cCSAus triple approval (Ex3) <sup>6) 7)</sup>	Zone 1: Group IIC or IIB, T2...T4 Class 1, Division 1: Group A, B, C, D or C, D, T2...T4
EAC (TR-CU) <sup>6)</sup>	Group IIC or IIB, T2 ... T4

## PANEL MOUNT<sup>4)</sup>



## REMOTE MOUNT<sup>5)</sup>



## ELECTRONICS

Power Supply: 24 V DC  $\pm$ 20 % or 90 ... 264 V AC  
 Outputs: Analog, Frequency, Pulse, Status  
 Interfaces: RS485 RTU (Modbus), HART<sup>®</sup>  
 Cable Gland: M20 | 1/2" NPT

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

<sup>4)</sup> Weight: 0.4 kg [0.88 lb].

<sup>5)</sup> 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].

<sup>6)</sup> For Ex1, Ex3, EAC (TR-CU) the electronic is only available in aluminum housing.

<sup>7)</sup> Only with remote electronics.

[www.tricorflow.com](http://www.tricorflow.com)



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