



# PRO Series | TCMP 028K Coriolis Mass Flow Meter

## FEATURES

- Robust, no moving parts
- Customized installation length
- Excellent repeatability (better than  $\pm 0.05\%$ ), 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.):	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]

## ACCURACY (LIQUIDS)<sup>1)</sup>

Basic Accuracy (Mass Flow):	$\pm 0.1\%$ of flow rate
Repeatability (Mass Flow):	better than $\pm 0.05\%$ of flow rate
Basic Accuracy (Volume Flow):	$\pm 0.15\%$ of flow rate
Repeatability (Volume Flow):	better than $\pm 0.05\%$ of flow rate
Zero Stability:	$\pm 0.01\%$ of full scale

## ACCURACY (GASES)

Basic Accuracy (Mass Flow):	$\pm 0.5\%$ of flow rate
Repeatability (Mass Flow):	$\pm 0.25\%$ of flow rate

## DENSITY

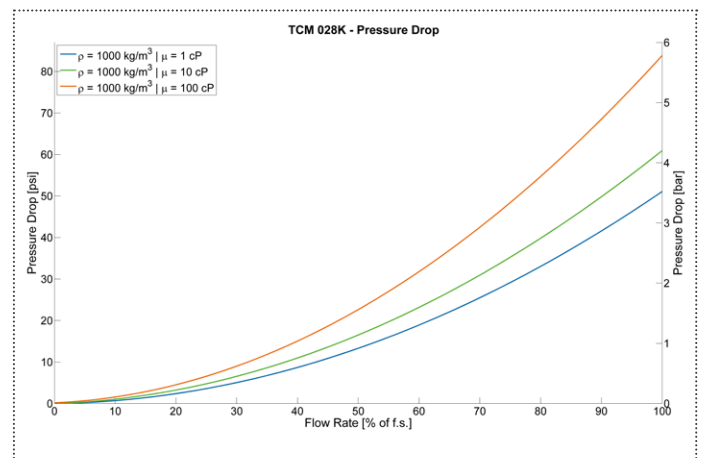
Density Range:	up to 2,500 kg/m <sup>3</sup> [2.5 g/cm <sup>3</sup> ]
Density Accuracy <sup>2)</sup> :	$\pm 1.0$ kg/m <sup>3</sup> [ $\pm 0.001$ g/cm <sup>3</sup> ]
Density Repeatability:	$\pm 0.5$ kg/m <sup>3</sup> [ $\pm 0.0005$ g/cm <sup>3</sup> ]

## TEMPERATURE

Process Temperature Range:	-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]
Brazing Alloy:	BNi-2

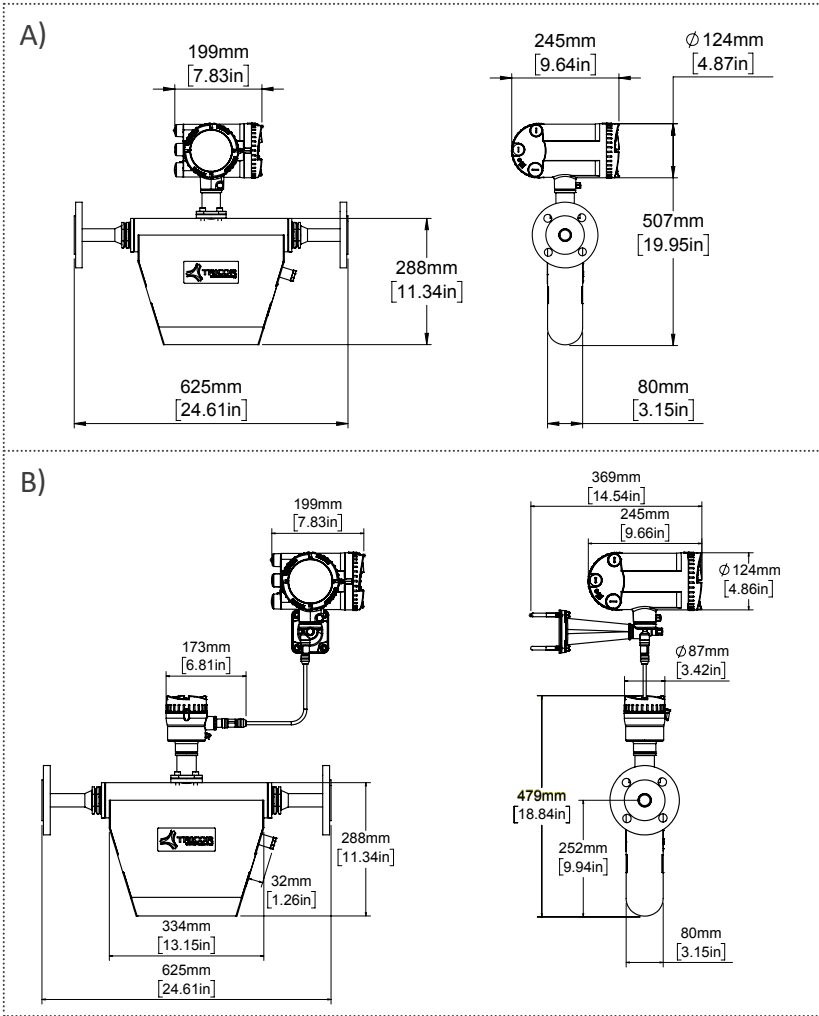


<sup>1)</sup> Stated flow accuracy combines the effects of repeatability, linearity and hysteresis.

<sup>2)</sup> The specifications refer to standard conditions (for further information see TCMP PRO series manual).



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

### A) Compact Version

Weight: 14.7 kg [32.3 lb]

With meter mount in aluminum diecast housing

### B) Remote Version

Weight: 17.2 kg [37.8 lb]

With junction box and remote field mount

### Standard Process Connection

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

## EX-CERTIFICATIONS<sup>4)</sup>

ATEX	Zone 1:	Ex db ia [ia Ga] IIB T* Gb
	Zone 2:	II 3G nR nA IIC T4
IECEX		Ex db ia [ia Ga] IIB T* Gb
cCSAus	Canadian Marking:	Ex db ia [ia Ga] IIB T* Gb
	US Zones Marking:	Cl. 1, Zone 1 AEx db ia [ia Ga] IIB T4-T3 Gb
	US Divisions Marking:	Cl. 1, Div. 1 Groups C and D, T*

## BASIC TRANSMITTER<sup>5)</sup>



## 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 PA, PROFIBUS DP,

HART 7.5, Modbus RTU

Enclosure Material: Aluminum

Cable Gland: ½" NPT, M20x1.5

<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> T\* refer to Ex-certificate.

<sup>5)</sup> Specification basic transmitter: see special TCD 9010 spec sheet.

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



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