



## 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.):	230,000 kg/h [8,450 lb/min]
Volumetric Flow Rate (max.):	230,000 l/h [1,013 gpm, 34,720 oil bbl/d (US)]
Nominal Meter Size:	DN80 [3"]

## 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

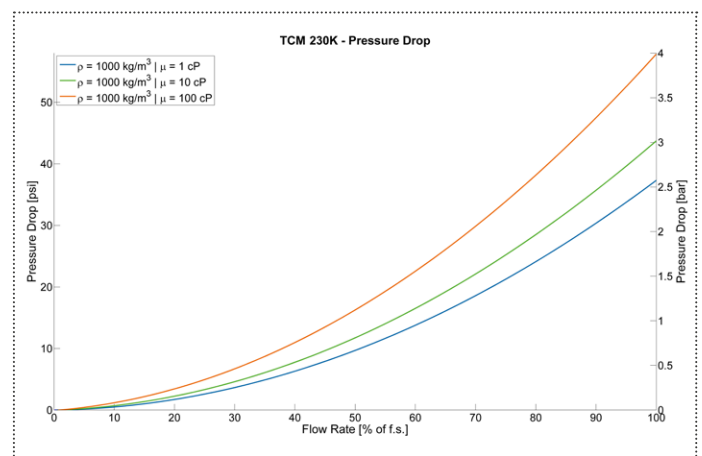
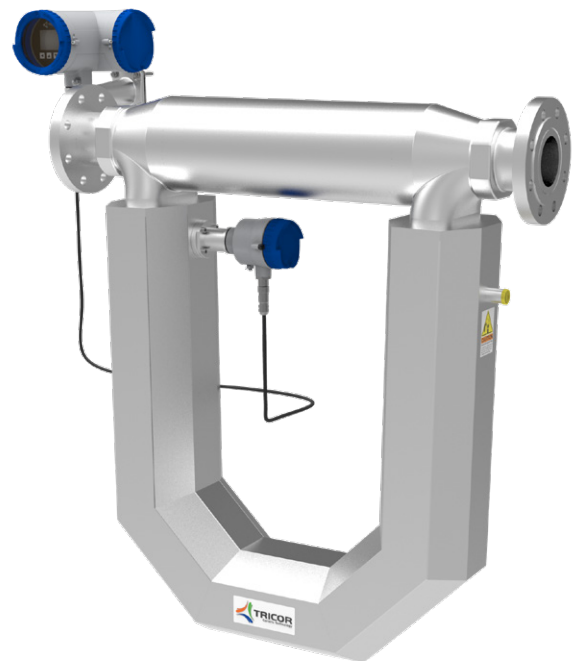
Density Range:	up to 2,500 kg/m <sup>3</sup> [2.5 g/cm <sup>3</sup> ]
Density Accuracy <sup>2)</sup> :	$\pm 1.0$ kg/m <sup>3</sup> [ $\pm 0.001$ g/cm <sup>3</sup> ]
Density Repeatability:	$\pm 0.5$ kg/m <sup>3</sup> [ $\pm 0.0005$ g/cm <sup>3</sup> ]

## TEMPERATURE

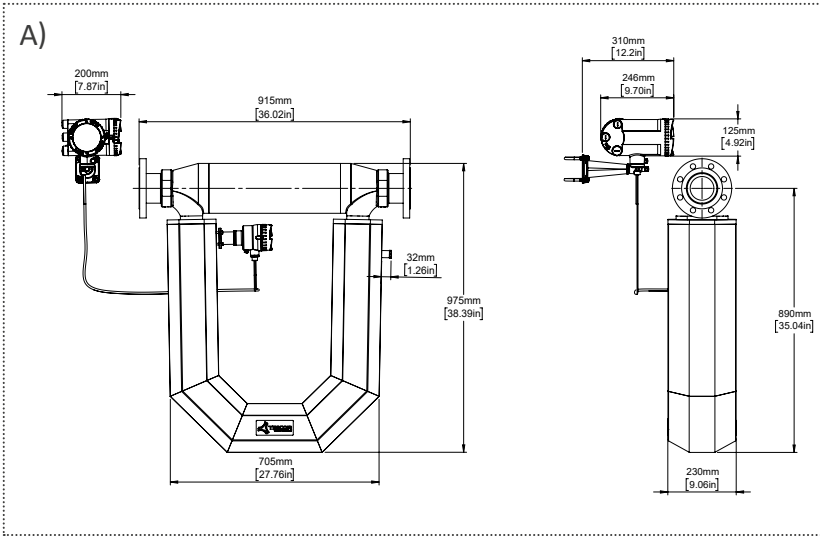
Process Temperature Range:	-60 °C ... +200 °C [-76 °F ... +392 °F]
Temperature Accuracy:	$\pm 1$ °C $\pm 0.5\%$ of reading [ $\pm 1.8$ °F $\pm 0.5\%$ of reading]
Temperature Repeatability:	$\pm 0.2$ °C [ $\pm 0.36$ °F]

## MATERIALS (WETTED PARTS)

Tubes:	1.4404 [AISI 316L]
Case:	1.4404 [AISI 316L]
Flow Splitter:	CF3M [1.4409]
Option:	NACE MR 0175/0103 compliant



<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).



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

### A) Remote Version

Weight: 90.2 kg [98.9 lb]

With junction box and remote field mount

### Standard Process Connection

DN80 PN40 [3" 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: 1/2" 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.

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