



## NOMINAL FLOW RATE

@ 850 kg/m <sup>3</sup> : (Pressure Drop max. 2 bar)	180 kg/h @ 1 cSt [6.6 lb/min @ 1 cSt] 150 kg/h @ 10 cSt [5.5 lb/min @ 10 cSt] 65 kg/h @ 30 cSt [2.4 lb/min @ 30 cSt]
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## PRESSURE RATING

TCMH 0450-HC-SPOS:	1,050 bar [15,200 psi]
TCMH 0450-HC-SROS:	690 bar [10,000 psi]
TCMH 0450-HC-SSOS:	414 bar [6,000 psi]

## ACCURACY

Flow:	±0.2 % of flow rate
Mass Repeatability:	±0.1 % of flow rate
Zero Stability <sup>1)</sup> :	0.34 kg/h [0.16 kg/h] 0.012 lb/min [0.005 lb/min]
Temperature:	±1 °C ±0.5 % of flow rate [±1,8 °F ±0.5 % of flow rate]

## OPERATING CONDITIONS - PROCESS<sup>2)</sup>

Process Temperature Range:	-40 °C ... +100 °C [-40 °F ... +212 °F]
Medium:	Liquid
Pressure Effect on Sensitivity:	0.0002 % / bar [0.000014 % / psi]

## OPERATION CONDITIONS - ENVIRONMENT

Ambient Temperature:	-40 °C ... +70 °C [-40 °F ... +158 °F]
Relative Humidity:	max. 95 %

## MATERIALS (WETTED PARTS)

NACE MR0175/MR0103

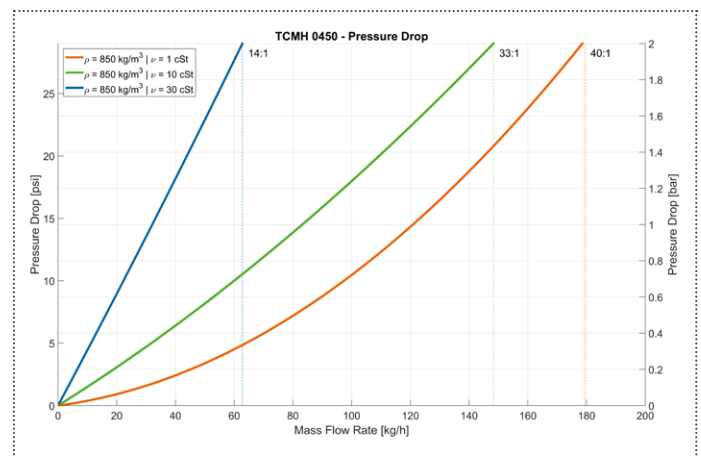
Tubes:	1.4404 [AISI 316L]
Case:	1.4404 [AISI 316L]
Flow Splitter:	1.4404 [AISI 316L]

## BURST PROTECTION

Rupture Disc:	G½"
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## CONNECTIVITY

Flow Meter:	¾" Autoclave (MP)
Signal Cable Connection:	Push-Pull connector
For triple Ex approval (Ex3) <sup>3)</sup>	



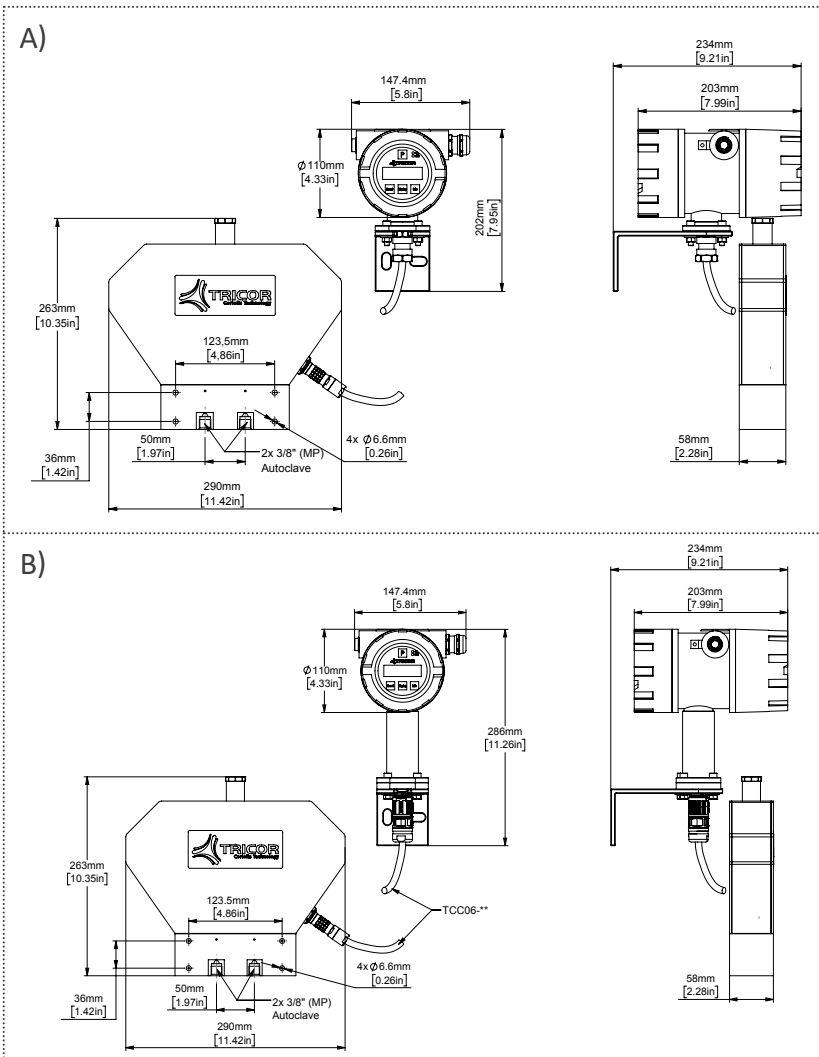
<sup>1)</sup> Customer information required for density and viscosity at operation temperature for Reynolds number compensation.

<sup>2)</sup> Customer specific pressure compensation curves on request.

<sup>3)</sup> With connector M23 (TCE) and with connector Lemo (TCM), x m cable length (TCC-06-xx).



# HIGH PRESSURE | TCMH 0450 Coriolis Mass Flow Meter – Liquids



## METER DIMENSIONS AND WEIGHTS

### A) Ex/Ex1

Weight: 7.5 kg [16.5 lb]

### B) Ex3

Weight: 7.5 kg [16.5 lb]

## EX-CERTIFICATIONS

ATEX	Zone 1: Group IIC, T2...T4
	Zone 2: II 3G Ex nA IIC T2...T4 Gc
IECEX	Zone 1: Group IIC, T2...T4
cCSAus <sup>4)</sup>	Class 1, Division 1: Group A, B, C, D, T2...T4
ATEX + IECEX + cCSAus triple approval <sup>4)</sup>	Zone 1: Group IIC, T2...T4 Class 1, Division 1: Group A, B, C, D, T2...T4

## ELECTRONICS

Power Supply:	24 V DC $\pm 20\%$ or 90 ... 264 V AC
Housing Material:	Aluminum 1.4404 [AISI 316L]
Display:	LCD Display

## OUTPUT SIGNALS

Analogue:	2 x 4 ... 20 mA passive two-wire, galvanically free accuracy $\pm 0.05\%$ of f.s. temperature drift 0.05 % per 10 K load $< 620 \Omega$ (with 24 V supply) output value programmable
Frequency/Pulse:	5 - 10,000 Hz active, push pull for flowrate
Status:	push pull programmable

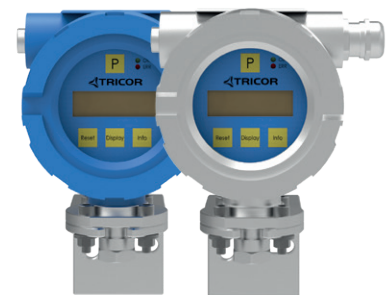
## INPUT SIGNALS

Control Input:	0/24 V DC
Analogue (optional):	4 ... 20 mA active for passive 2-wire-pressure sensor supply $> 20$ V (sensor current 20 mA)
Interfaces:	RS485 RTU (Modbus), optional HART®

## PROTECTION CLASS

IP65 (NEMA 4)  
IP66 (NEMA 4X) optional

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



<sup>4)</sup> For cCSAus the electronic is only available in aluminum housing.

<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].

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