

# TCM230K Coriolis Flow Meter

**EXTREME ACCURACY MASS FLOW MEASUREMENT**



## Specifications

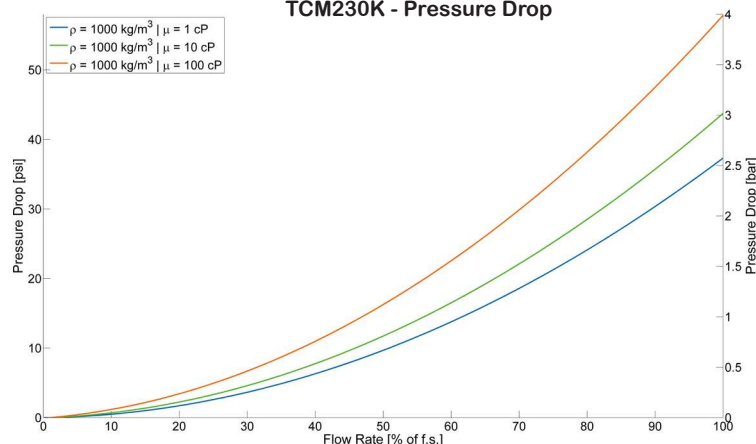
### Performance

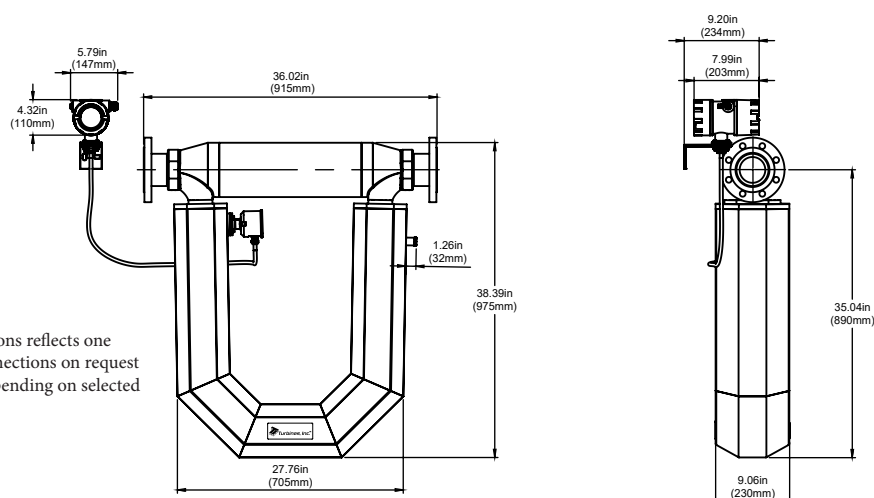
Linearity	±0.15% of flow rate (Liquids)   ±0.5% of flow rate (Gases)
Repeatability	±0.05% of flow rate (Liquids)   ±0.25% of flow rate (Gases)
Process Temperature Range	Standard: -40°F to 212°F (-40°C to 100°C)   Optional: -76°F to 392°F (-60°C to 200°C)
Pressure Rating	1450 psi   100 bar
Temperature Accuracy	±1.8°F ±0.5% of reading   ±1.0°C ±0.5% of reading
Temperature Repeatability	±0.36°F   ±0.2°C
Calibration	5-point logarithmic calibration
Standard Process Connection	3" to 4" 150lb to 900lb ANSI flanges (consult factory for additional flange options)
Zero Stability	±0.015% of full scale
Density Range	up to 2,500 kg/m <sup>3</sup> (2.5 g/cm <sup>3</sup> )
Max Flow Rate	230,000 kg/hr   8,450 lbs/min   230,000 l/hr   1,013 gpm   34,720 bbl/d (US)
Nominal Meter Size	3"   DN80 mm

### Materials

Tubes	316L Stainless steel (DIN 1.4404)
Case	316L Stainless steel (DIN 1.4404)
Flow Splitter	CF3M (DIN 1.4409)

TCM230K - Pressure Drop





\*Drawing of the Meter Dimensions reflects one standard connection; other connections on request (Installation length can vary depending on selected connection).

## Meter Dimensions\* & Weights

Weight 194.4 lb I 87 kg {includes junction box and remote field mount transmitter}

## Certifications

CSA*	<b>Sensor:</b> Cl. I, Div. 1, Groups C & D: T4 ... T2 (US, Can) Ex ia IIC T4 ... T2 Ga (Can) Cl. I, Zone 0, AEx ia IIC T4 ... T2 Ga (US) <b>Transmitter:</b> Cl. I, Div. 1, Groups C & D: T4 (US, Can) Ex db [ia Ga] IIC T4 Gb (Can) Cl. I, Zone 1, AEx db [ia Ga] IIC T4 Gb (US)	ATEX	<b>Zone 1:</b> Sensor: II 1 G Ex ia IIC T4 ... T2 Ga Transmitter: II 2(1) G Ex db [ia Ga] IIC T4 Gb <b>Zone 2:</b> 113G Ex nA IIC T4 Ge
		IECEX	<b>Compact:</b> Ex ia IIC T4...T2 Ga <b>Transmitter:</b> Ex db [ia Ga] IIC T4 Gb
		EAC (TR-CU)	Group IIC or IIB, T2...T4
		KGS (Korean)	<b>Compact:</b> Ex ia IIC T4 Transmitter: Ex d (ia) IIC T4

\*CSA certification is only available in diecast aluminum housing.

## Electronics

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

## Service

Our dedicated staff offers complete support and recertification for flow meters — whether our own or a competitor's brand. Our calibration services are performed by our trained technicians using the latest testing equipment.

Turbines, Inc. maintains extensive inventories in multiple locations to facilitate rapid, industry leading deliveries.

## Worldwide Support

We serve customers globally with offices in Altus, OK; Seneca, SC; Odessa, TX; Cranston, RI; and Edmonton, Alberta, Canada.



15935 Highway 283 N.  
 Altus, Oklahoma 73522, USA  
 Tel: +1-580-477-3067  
[www.turbinesincorporated.com](http://www.turbinesincorporated.com)



112 Lumber Ln.  
 Seneca, SC 29672 USA  
 Tel: +1-864-882-4544  
[www.turbinesincorporated.com](http://www.turbinesincorporated.com)



960 South Meadow Ave.  
 Odessa, TX 79761 USA  
 Tel: +1-432-333-4800  
[www.turbinesodessa.com](http://www.turbinesodessa.com)



800 Wellington Avenue  
 Cranston, RI 02910, USA  
 Tel: +1-401-461-6366  
[www.primaryflowsignal.com](http://www.primaryflowsignal.com)



2236 80th Avenue NW,  
 Edmonton, AB T6P 1N2  
 Tel: 877-661-3569  
[www.pfscanada.ca](http://www.pfscanada.ca)