



SUR-TECH CORIOLIS FLOW METER

SUR-TECH CORIOLIS RCT1000 FLOW METER

The ST-RCT1000 Coriolis mass flow meter identifies flow rate by directly measuring mass flow and density of fluids over a wide range of process temperatures with a high degree of accuracy. For homogenous fluids consisting of two components like sugar and water, the ST-RCT1000 Coriolis system can derive the concentration and mass of each component based on fluid properties and density measurement. Furthermore, the unobstructed, open flow design makes it suitable for a variety of fluids such as slurries and other viscous, nonconductive fluids that are difficult to measure with other technologies.

ST-RCT1000

FEATURES

- Highly accurate direct measurement of: Mass Flow / Density
- Derive concentration of homogenous liquids
- No straight-run requirements and Low maintenance operation
- Advanced fluid diagnostic software
- Open flow path and Flexible integration options

CERTIFICATIONS

■ ATEX / IECEx

Integral mount II 2 G Ex db ia IIB T4 Gb

Remote transmitter II 2 (1) G Ex db [ia Ga] IIB T6... T3 Gb

Remote sensor II 1 G Ex ia IIB T6... T3 Ga

■ cCSAus

CI I, Zn 1 AEx/Ex db ia IIB T4 Gb Explosion-proof for CI I Div 1 Grp CD with Intrinsically Safe Sensor for CI I Div 1 Grp CD

CI I, Zn 1 AEx/Ex db [ia Ga] IIB T6... T3 Gb Explosion-proof for CI I Div 1 Grp CD

OPERATION

As fluid flows through the vibrating sensor tube, forces induced by the flow cause the tube to twist slightly. These small deflections are measured by carefully placed detectors. A phase shift occurs between detector signals that is directly proportional to mass flow rate. As the fluid density varies, the resonant frequency at which the tube vibrates changes, which is also measured by the detectors. These larger sensors have two tubes that are vibrated in opposing directions in order to reduce the effect of process vibration on the flow measurement. Temperature is measured by an internal RTD in order to calculate thermal effects on the tube vibrating frequency.

SPECIFICATIONS

Size	0.5" - 24" (other sizes available upon request)
Connections	Flanged 150, 300 ; NPT ; DN PN40 ; Tri-Clamp
Enclosure Options	NEMA 4 (IP65), NEMA 4X (IP66)
Power Requirements	Model RCTN: 115/230V AC; ±15% 50/60 Hz 25W maximum or 20...28V DC; 15W maximum
	Model RCTX: 18...28V DC; 15W maximum
Analog I/O Outputs	Model RCTN: Three 4...20 mA (0...22 mA capable), maximum load 500 Ohms, approximately 16 bit resolution outputs; assignable to mass flow, volume, density, temperature, concentration, PID and similar measurements. User defined fault condition output value anywhere in the 0...22 mA range
	Model RCTX: Two (three with HART Option) 4...20 mA (0...22 mA capable), maximum load 500 Ohms, approximately 16 bit resolution outputs; assignable to mass flow, volume, density, temperature, concentration, PID and similar measurements. User defined fault condition output value anywhere in the 0...22 mA range