



PrismaTech Coriolis Mass Flowmeter PTCMF

A Coriolis mass flowmeter is based on the principles of motion mechanics. When the process fluid enters the sensor, it is split. During operation, a drive coil stimulates the tubes to oscillate in opposition at the natural resonant frequency. As the tubes oscillate, the voltage generated from each pickoff creates a sine wave. This indicates the motion of one tube relative to the other. The time delay between the two sine waves is directly proportional to the mass flow rate. In addition, the fluid density can also be determined from the oscillation frequency of the measuring tubes. The temperature of the measuring tube is also registered to compensate thermal influences. The process temperature derived from this is available as an additional output signal. PrismaTech Coriolis Mass Flowmeter PTCMF has been designed based on the state-of-the-art technologies to meet the requirement of all industries such as food and beverage, oil and gas, wastewater, and so on. These flowmeters are constructed in various sizes, and they can simultaneously measure multiple parameters such as mass flow, density, volumetric flow, Brix, and finally fluid temperature.

Characteristics

- Universal measuring principle for liquids and gases
- Multivariable measurement – simultaneous measuring of mass flow, density, temperature, volumetric flow, and Brix
- High flow measuring accuracy: $\pm 0.1\%$
- High density measuring accuracy: ± 0.00025 gr/cc
- High zero stability
- Measuring principle independent of the physical fluid properties and the flow profile
- Fully temperature compensated
- Robust against environmental mechanical vibration
- Various sizes from DN8 up to DN250