

Rugged Coriolis Flow Meter Designed For Harsh Acidic and Caustic Fluids

From HCL to NaOH and Everything in Between



San Marcos, CA

With a breakthrough flow sensor design, the new Model CMM Coriolis Mass Flow Meter from Fluid Components International is compatible with virtually every industrial process fluid in use today. FCI's Model CMM flow meter features the industry's widest standard configuration selection of the industry's most popular and exotic wetted surface materials for service in harsh fluids—from water to acids, to corrosives, and even hazardous safety sensitive fluids such as phosgene.

The CMM flow meter's wetted surface parts are available in nine standard materials that ensure compatibility and long-life. Available standard materials include:

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|---------------------|----------------|-----------|
| 316 Stainless Steel | Hastelloy C-22 | Tantalum |
| Carbon Steel | Monel | Titanium |
| Hastelloy B | Nickel | Zirconium |

Until now the choice of standard wetted surface materials available from other Coriolis flow meters suppliers has been limited. This meant that many processes suitable for Coriolis flow metering had to settle for less accuracy or no measurement.

Designed for service in line sizes from 1/8 to 2 inches (DN 6 to DN50), the CMM flow meter is a versatile flow measurement solution for flow rates up to 1460 lb/min (40,000 kg/hr) that is ideal for use in a wide range of processes. The CMM is accurate to 0.1 percent in liquids and to 0.5 percent in gases (\pm reading). For liquid applications demanding the utmost in accuracy, the CMM's optional 10-point calibration service will boost accuracy to a superior 0.05 percent.

The CMM flow meter is designed with advanced flow sensor, thick-wall construction technology that makes it the right choice for high pressure applications as well. In addition, standard process temperatures can be up to 500°F (260 °C). For applications requiring ultra high pressure ratings, optional configurations are available, which can extend operating pressures up to 13,000 psi (900 bar). The CMM is suitable for high reliability, high margin of safety applications in compressed natural gas, pressurized hydrogen and other hazardous environments. The standard CMM flow meter is enclosed in a stainless steel body, with either aluminum or stainless steel covers that provide leak containment at ambient pressure and temperature conditions.

In challenging applications where leak protection is also a critical process or safety concern, the CMM flow meter is available with containment options of screw-on, bolted, or weld-on carbon steel or stainless steel covers that offer extended pressure ratings. A ruggedized full-featured transmitter, the Model CT, is available to support the CMM flow meter. Available as a blind transmitter or with an integral two-line LCD digital display, the transmitter is the electronics interface to the sensor and an array of analog and/or digital outputs. Standard outputs include dual 4-20mA, one standard with HART[®], a frequency/pulse output of total flow, and a binary output of instrument status. Output options include Profibus-PA and a tamper-proof, custody transfer configuration that is sealed/certified, and prevents resetting of the internal totalizer. The CT can be mounted integral with the sensor or remote mounted up to 1000 feet (300 m) away.

With the Model CMM, FCI expands Coriolis technology to serve a broad range of applications in chemical, petrochemical, oil/gas, pharmaceutical, food and beverage, pilot plants and many more. Precision Coriolis flow measurement technology is here at last for the most challenging flow applications and toughest fluids.

Many challenging process applications that could be improved or achieve cost savings with high accuracy Coriolis flow measurement have been long ignored because of fluid compatibility limitations. Typical Coriolis Flow Meters have been limited to use with benign fluids compatible with stainless steel or Hastelloy C-22. FCI's new Model CMM Coriolis flow meter product line overcomes these obstacles to expand the applications envelope for this technology.

Fluid Components International is a global company committed to meeting the needs of its customers through innovative solutions to the most challenging requirements for sensing, measuring and controlling the flow and level of air, gases and liquids.