Badger Meter

Dynasonics® TFX-5000 Ultrasonic Clamp-on Flow Meter: A Solution for Building and HVAC Applications

Commercial and industrial facilities have a crucial need: optimizing the operation of chillers, chilled water systems, thermal energy tank systems, boilers, cooling towers, pumps and other assets used in hydronic systems.

Hydronic system applications are rigorous and have a variety of flow measurement requirements. Adding to the challenge, they demand long-term accuracy, reliability and repeatability, along with a low cost of ownership.

Badger Meter offers a broad range of flow and energy measurement products for your building's Heating, Ventilation and Air Conditioning (HVAC) systems—ensuring you have the right solution to meet your specific needs. Our ModMAG® electromagnetic flow meters, Vortex insertion flow meters, Recordall® disc meters and Dynasonics® ultrasonic flow meters are trusted brands throughout building design, construction and operation.

When Price and Performance Matter

The Dynasonics TFX-5000 ultrasonic clamp-on flow meter is our latest generation in transit time meters and provides an optimal value for those looking for a superior solution at a competitive price. With built-in data logging and real-time clock, the meter records flow rate, total and diagnostic information with a time/date stamp. It also has an 8 GB micro Secure Digital (microSD) card to store a large volume of backup data for troubleshooting or reporting purposes.

Easy New and Retrofit Installation

When an existing in-line or insertion flow meter fails and is difficult to replace, or additional metering is needed on an HVAC system, the best choice is a non-invasive solution like the TFX-5000 ultrasonic flow meter.

Designed to clamp on to the outside of pipes, the TFX-5000 meter does not contact the internal liquid—allowing for installation without shutting down the operation, reducing total installation cost. Hot tap, in-field drilling and welding are not required when installing the device.

Building and HVAC Applications

- Glycol and Hot or Chilled Water
- Cooling Towers
- Cost Allocation
- Chiller Systems
- Energy Audits
- Makeup Water

Control. Manage. Optimize.

Designed to Meet Your Needs

The TFX-5000 meter measures the flow of clean liquids and those with small amounts of suspended solids. It can be used with dual clamp-on Resistance Temperature Detectors (RTDs) for British Thermal Unit (Btu) energy measurement.

Glycol and Hot or Chilled Water

Versatile: Hydronic systems often have high turndown characteristics. Users require solutions like the TFX-5000 meter to measure flow at both the design rate and minimum rate required for seasonal operation.

Cost-effective: The TFX-5000 meter handles a wide range of pipe sizes. The meter samples the entire flow profile twice, and its clamp-on configuration inherently reduces installation time and cost.

Robust: The TFX-5000 meter is built for the day-to-day demands of remote installations. It utilizes a sturdy aluminum enclosure for a long service life, even under the harshest conditions. The meter's innovative configuration completely eliminates the need to maintain and replace O-rings and seals.

Cooling Towers

Non-intrusive: With its non-intrusive configuration, the TFX-5000 meter provides utmost ease of deployment. It can be put into service without shutting down the process or intruding into existing piping.

Flexible: The TFX-5000 meter can be used to control the operation of pumped condenser water, condenser water blowdown and evaporation without the maintenance issues associated with traditional flow metering equipment. Its power and communications features can be quickly added or replaced when system requirements change.

Rugged: The TFX-5000 can be installed outdoors within the cooling tower system so the owner gets precise measurements for sequence and cycle control while using the flow data to help identify when limits of operation are reached.

Cost Allocation

Capable: With 8 GB of data logging storage, the TFX-5000 meter records up to eight readings for verifying and troubleshooting flow systems. If needed, it can integrate metering components with flow and temperature sensors to measure energy costs in heating and/or cooling applications.

Advanced: Users can pair the TFX-5000 meter with the AquaCUE® Flow Measurement Manager cloud-based software to provide flow data for consumption analysis, leak detection and other purposes.

Modern: The TFX-5000 meter was developed with modern, data-centric operations and can interface with building automation systems for real-time flow balancing. Connectivity options include Modbus® RTU, BACnet MS/TP and BACnet/IP.

Learn more about the TFX-5000 meter at badgermeter.com.

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INC-FL-03173-EN-01 (December 2019)