Btu metering / Heating and cooling measurements

In addition to measuring a liquid flow rate, the Dynasonics® DXN is an ideal solution for hydronic energy metering. The built-in datalogger makes it easy to facilitate energy studies on heating and cooling loops in building automation systems or in process applications. The DXN is equipped with a built-in energy calculator designed to measure the rate and quantity of heat or cooling delivered to or removed from devices such as heat exchangers and air conditioners, or delivered to subtenants or departments in a facility. DXN measures the volumetric flow rate of the heat exchanger liquid, the temperature at the inlet pipe and the temperature at the outlet pipe. Heat flow measurement can be delivered in Btu, watts, joules, kilowatts and others.

Case study

To measure and control chilled water into an HVAC system, a Dynasonics® DXN hybrid portable flow and energy meter with clamp-on ultrasonic DTTN sensors with 1 MHz has been installed on the outside of the main DN 600, GRE pipe at the district cooling plant. 80% signal strength was easily achieved and the meter successfully provided flow measurements that matched endcustomer expectations.