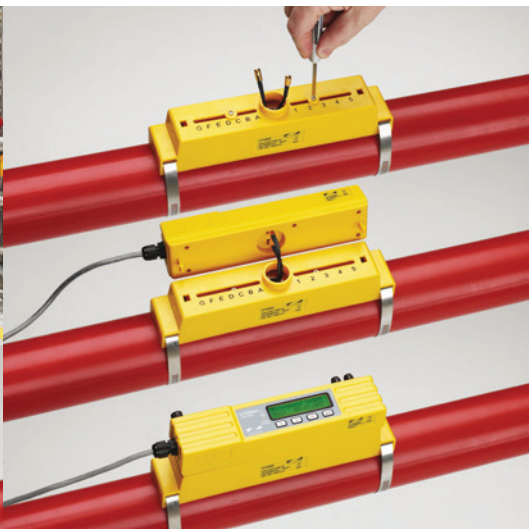


The thermal, heat/energy Metering solution from Micronics. Simple, low cost, hot or chilled water energy measurement from outside the pipe. A smarter solution than in-line meters!

The U1000MKII-HM is an ultrasonic clamp-on thermal, heat/energy meter that uses ultrasound to measure flow rate and PT100 temperature sensors to measure flow and return temperatures. The U1000MKII-HM displays energy rate and totalised energy with pulse output and communication options, so it can be used as a standalone meter or as an integral part of an aM&T or BEM's system.

Simple to install:

Connect power and enter the pipe inside diameter, adjust the sensors and clamp-on the pipe – no specialist skills or tools required!



New:

Pipe range has been extended to 6" pipes.



U1000MKII-HM – Fixed Ultrasonic Heat/Energy Meter with Modbus and Mbus Communication options

General Specifications

Measurement Technique:	Ultrasonic transit time method for flow measurement and PT100 Class B 4 wire for temperature measurement. Turn Down Ratio: 200:1
Heat Meter Standard:	The Heat/Energy calculation is designed to comply with EN1434 section 6.
Accuracy:	+/- 1% – 3% of flow reading for >0.3m/s (1 ft/s).
Flow Velocity Range:	0.1m/s – 10m/s (0.3 ft/s – 32 ft/s).
Pipe Range:	Available in 2 options. 22mm to 115mm and 125mm to 180mm OD. Note Pipe size is dependent on pipe material and internal diameter.
Water Temp Range:	0°C – 85°C (32°F – 185°F).
Temperature sensors:	Clamp-on PT100 Class B 4 wire, range 0°C – 85°C (32°F – 185°F), resolution 0.1°C (0.18°F). Minimum delta T is 0.3°C.
Output:	Pulse or Frequency. Pulse for Volume flow and Energy in kWh(BTU). Frequency for flow rate. The pulse output can be configured as a loss of signal or low flow alarm.
Modbus Communication:	Optional Modbus RTU slave, RS485 serial link hardware layer. Energy, power, temperature and flow. Modbus connection cable is 1m.
Mbus Communication:	Optional M-Bus.
External Power Supply:	12V – 24V +/- 10% AC/DC at 7 watts per unit. Optional plug in 12V power supply.
Electronics Enclosure:	IP54.
Input/Output Cable:	5m x 6 core for power in and pulse out
Dimensions:	250mm x 48mm x 90mm (10" x 2" x 4") (electronics + guide rail).

Industries:

- Building Services
- Energy Management

Recommended for:

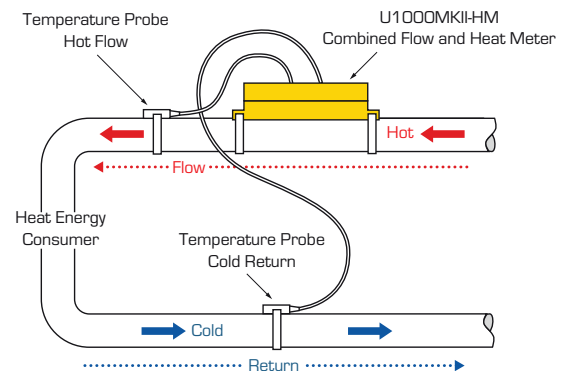
- Hot water < 85°C (185°F)
- Chilled water
- Chilled Water with Glycol

Application/use:

- Heat/energy metering in energy management or building services applications for LTHW or chilled water circuits.

Pipe Materials:

- Steel, Stainless Steel, Plastic and Copper



Micronics Limited accepts no responsibility or liability if this product has not been installed in accordance with the installation instructions applicable to the product. Micronics reserve the right to alter any specification without notification.