



Micronics Ultraflow U1000MKII-HM Ultrasonic Pipe Clamp-on Heat Meter/Energy Meter

Product Images



Short Description

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!

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Key Features & Benefits

- **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!
- Dry servicing, providing minimum downtime and maximum availability.
- Larger pipe range 2 options, fully adjustable for 22mm – 115mm and 125mm – 180mm (6") OD
- Optional Modbus RTU slave, RS485 serial and M-Bus communication.
- Cross correlation flow measurement system
- 1Mhz transducers to get through poor/old thick wall pipes and larger pipework
- Water/Glycol option
- LCD with backlight – install & service information.
- Integrated pulse output – aM&T & BEM's compatible with Modbus.

A "Best Value" Clamp-on, Ultrasonic heat meter alternative to traditional inline energy meters, for energy management and billing applications in domestic and commercial, district or shared heating or cooling systems.

APPLICATIONS: Heat/energy metering in energy management or building services applications for LTHW or chilled water circuits

INDUSTRIES: Energy Management, Building Services

RECOMMENDED FOR: Hot water < 85°C (185°F), Chilled water, Chilled water with glycol

PIPE MATERIALS: Steel, Stainless Steel, Plastic and Copper.

Additional Information

Country of Manufacture	United Kingdom
Explanation	<p>Measurement Technique: Ultrasonic transit time method for flow measurement and PT100 Class B 4 wire for temperature measurement.</p> <p>Turn Down Ratio: 200:01</p> <p>Heat Meter Standard: The Heat/Energy calculation is designed to comply with EN1434 section 6</p> <p>Accuracy: +/-1-3% of flow reading for >0.3 m/s (1 ft/s)</p> <p>Flow Velocity Range: 0.1 m/s – 10 m/s (0.3 ft/s – 32 ft/s)</p> <p>Pipe Range: Available in 2 options, 22 mm – 115 mm and 125 mm – 180 mm (6") OD. Note pipe size is dependent on pipe material and internal diameter.</p> <p>Pipe Material: Steel, Stainless Steel, Plastic and Copper</p> <p>Water Temp Range: 0°C – 85°C (32°F – 185°F)</p> <p>Temperature sensors: Clamp-on PT100 Class B 4 wire, range 0°C – 85°C (32°F – 185°F) , resolution 0.1°C (0.1 °F). Minimum delta T 0.3°C</p> <p>Output: Pulse or Frequency. Pulse for volume flow and Energy KWh (BTU). Frequency for flow rate. The pulse output can be configured as a loss of signal or no flow alarm.</p> <p>Modbus Communication: Optional Modbus RTU slave, RS485 serial link hardware layer. Energy, power, temperature and flow. Modbus connection cable is 1 m.</p> <p>M-Bus Communication: Optional M-Bus</p> <p>External Power Supply: 12V-24V +/- 10% AC/DC at 7 watts per unit. Optional plug in 12 V power supply.</p> <p>Electronics Enclosure: IP54</p> <p>Input/Output Cable: 5 m x 6 core for power in and pulse out</p> <p>Dimensions: 250mm x 48mm x 90mm (10"x 2"x 4") (electronics + guide rail).</p>
Brand	Micronics
Typical applications	Building Monitoring, Energy
Measurements	Water Temperature
Installation	Includes transducer guide rail and all mounting hardware.

Additional Options

Electronics Options	Pulse Only, up to 4" pipe (SKU: MC804-20001400)
	Pulse Only, up to 6" pipe (SKU: MC804-20004600)
	With Pulse & Modbus, up to 4" pipe (SKU: MC804-20001402)
	With Pulse & Modbus, up to 6" pipe (SKU: MC804-20004602)
	With Pulse & Mbus, up to 4" pipe (SKU: MC804-20001403)
	With Pulse & Mbus, up to 6" pipe (SKU: MC804-20004603)
Optional 12V Wall Power Supply	U1000 12V Wall Power Supply