



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

- **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.
- Optional native BACnet MS/TP support for direct integration with BMS platforms
- 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.

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 Information

Additional Options

Options	Pulse Only, up to 4" pipe (SKU: MC804-20001400)
	Pulse Only, up to 6" pipe (SKU: MC804-20004600)
	With Pulse & BACnet, up to 4" pipe (SKU: MC804-20001406)
	With Pulse & BACnet, up to 6" pipe (SKU: MC804-20004606)
	With Pulse & Modbus, up to 4" pipe (SKU: MC804-20001402)
	With Pulse & Modbus, up to 6" pipe (SKU: MC804-20004602)
	With Pulse & M-bus, up to 4" pipe (SKU: MC804-20001403)
	With Pulse & M-bus, up to 6" pipe (SKU: MC804-20004603)
Optional 12V Wall Power Supply	U1000 12V Wall Power Supply