



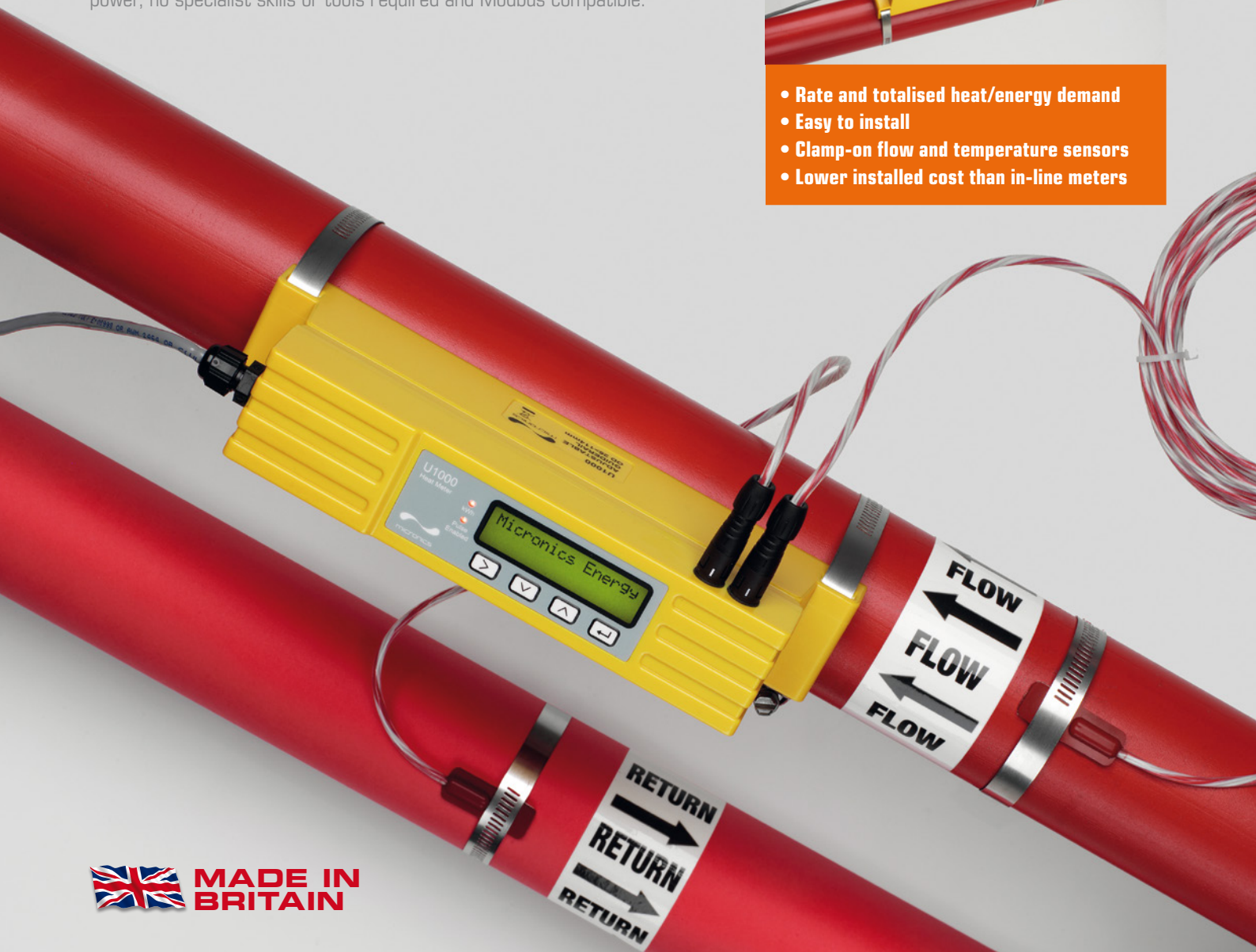
**The new thermal, heat/energy metering solution from Micronics. Simple, low cost, hot or chilled water energy measurement from outside the pipe. A smarter solution than in-line meters!**

The U1000 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 U1000 HM displays energy rate and totalised energy with pulse output and Modbus communication, 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 – clamp-on to the pipe, set the pipe diameter and connect the power, no specialist skills or tools required and Modbus compatible.



- Rate and totalised heat/energy demand
- Easy to install
- Clamp-on flow and temperature sensors
- Lower installed cost than in-line meters



For further information please visit:  
[www.micronicsflowmeters.com](http://www.micronicsflowmeters.com)  
or call

**+44 (0)1628 810456**





## U1000 HM Specification

**Measurement Technique:** Transit time and PT100 Class B 4 wire

**Turn Down Ratio:** 200:1

**Heat Meter Standard:** The Heat/Energy calculation is designed to comply with EN1434 section 6, third party certification pending.

**Accuracy:** +/-1-3% of flow reading for >0.3m/s (1ft/s)

**Flow Velocity Range:** 0.1m/s-10m/s (0.3ft/s-32ft/s)

**Pipe Range:** 25-115mm (1"-4½"). Min pipe ID 20mm (0.79")

**Water Temp Range:** 0°C-85°C (32-185°F)

**Temperature sensors:** Clamp-on PT100 Class B 4 wire, range 0-85°C (32-185°F), resolution 0.1°C (0.18°F)

**Output:** Pulse or Frequency, Energy (kWh or BTU) or Volume flow. The pulse output can also be configured as a loss of flow or low flow alarm for standalone meter or Modbus communication applications.

**Modbus Communication:** Modbus RTU slave, RS485 serial link hardware layer. Energy, power, temperature and flow.

**External Power Supply:** 12V-24V +/- 10% AC/DC at 7 watts

**Electronics Enclosure:** IP54

**Input/Output Cable:** 5m x 6 core for power in and data out

**Dimensions:** 250mm x 48mm x 90mm (10" x 2" x 4") (electronics + guide rail)

## INDUSTRIES:

- Energy Management
- Building Services

## RECOMMENDED FOR:

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

## APPLICATION/USE:

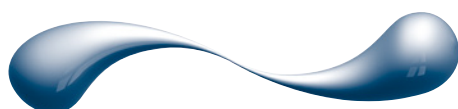
- Heat/energy metering in energy management or building services applications for LTHW or chilled water circuits.

## PIPE MATERIALS:

- Steel
- Plastic
- 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.



**micronics**  
Through measurement comes control

U1000 HM - Fixed Ultrasonic Heat/Energy Meter with Modbus Communication



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