

# U1000 - HM

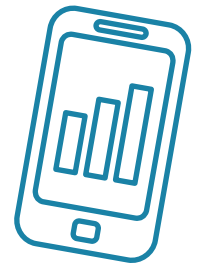
## Part Code: U1000MKII-HM

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 either pulse or MBus output.



Part Code	Name	Size	Output
MI100HM	Sycous WR1000 Clamp on Heat Meter - A Transducers	22-115mm	Pulse & MBus
MI101HM	Sycous WR1000 Clamp on Heat Meter - B Transducers	125-180mm	Pulse & MBus
MI200HM	Sycous WR1000MKII Wall Mounted Clamp on Heat Meter - A Transducers	22-115mm	Pulse & MBus
MI201HM	Sycous WR1000MKII Wall Mounted Clamp on Heat Meter - B Transducers	125-180mm	Pulse & MBus
SY912CO	Clamp On Meter Site Visit and Survey	-	-

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).



**Customer Billing Services**

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Industries	Recommended for	Application/Use	Pipe Materials
Energy Management	Hot water < 85°C (185°F)	Heat/energy metering in energy management or building services applications for LTHW or chilled water circuits.	Steel, Stainless Steel, Plastic and Copper
Building Services	Chilled Water Chilled Water with glycol		



**Data Collection**

- Wired Networks
- Wireless Networks
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- MBus & Pulse for any network
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