Micronics™

THE ULTRAFLO U1000MKII RANGE

The clamp-on alternative to cutting pipes and mechanical meters from Micronics, for simple, low cost flow and energy measurement From outside the pipe!

The ULTRAFLO range of clamp-on metering solutions including the New U1000MKII-WM with wall or panel mounted display and keypad offers a complete package alternative to traditional in-line flow and energy meters.

If you need to monitor and manage water and energy consumption in your facility the ULTRAFLO range offers a best value solution including lower cost, no disruption installation and dry maintenance for hot and chilled water applications ranging from 22 to 225mm OD.

And the range can be used as a standalone installation or form an integral part of your aM&T or Building Energy Management 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!

Compact, rugged and reliable, the ULTRAFLO range has been designed to provide sustained performance in industrial environments.

Now available in the original pipe-mounted or new wall-mounted, display & keypad format with extended pipe range.

micronicsflowmeters.com
sales@micronicsltd.co.uk
(UK) +44 1628 243066

Micronics, British Rototherm Group,
Kenfig Industrial Estate,
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"The support received from the Micronics team was excellent; we would without hesitation use their services in the future. Micronics meters are much quicker and cheaper to install because there is no need to cut into pipework which means that installation costs are minimal – the system does not need to be drained down or pipes cut into. Flow meters are configured for pipe size and there is only nominal configuration on site. The accuracy of the data delivered has been admirable and its operation has proved outstanding."
Ash Mirza, Systems Engineer
at Enerza Solutions

Industries:

- Building Services
- Energy Management

Recommended for:

- Hot water
- Chilled water
- Potable water
- Demineralised water
- Chilled Water with Glycol

Application/use:

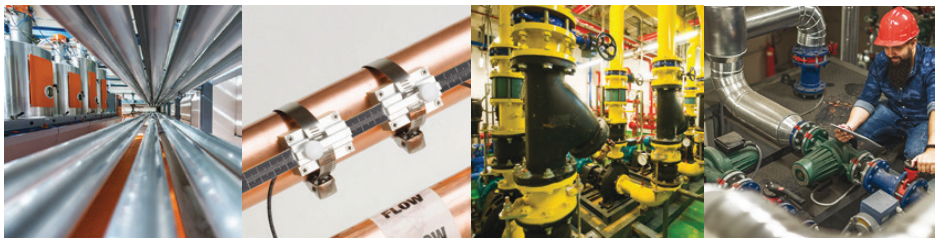
- Hot water metering and flow measurement
- Flow measurement for heat metering
- Chilled water metering and flow measurement
- Flow measurement for chilled water energy metering
- Potable water metering and flow measurement
- Process water metering and flow measurement
- Ultrapure water measurement

Micronics: leading the way

Micronics has been developing and manufacturing clamp-on, ultrasonic metering solutions in the UK for over 30 years with a focus on offering the "Best Value" flow and energy metering solutions for the Energy Management and Building Services sectors. If you need to find out what's flowing where in your facility to manage water and hydronic energy consumption, we're ready and able to help you from survey and advice through to installation and ongoing service and support.

Contact us today to help you manage your facility's water and energy consumption, we're here to help and we won't be beaten on value for money and customer service.

If you need to measure water or hydronic energy consumption Micronics has a product that's right for you.



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The Ultraflo U1000MKII Product Range

The range includes clamp-on water flow and hydronic energy meters either totally pipe mounted or with the WM option of pipe mounted flow and temperature transducers with a separate wall or panel mounted display and keypad.

The U1000MKII-FM (Flow Meter):

Is a self contained pipe-mounted, clamp-on flow meter for hot, chilled or potable water applications ranging from 22 to 180mm pipe OD, in Steel, Stainless Steel, Plastic or Copper pipe. Liquid operating temperature -20°C – 85°C (-4°F – 185°F). For further details see the U1000MKII-FM data sheet.

The U1000MKII-(FM or HM)-WM (Wall Mount):

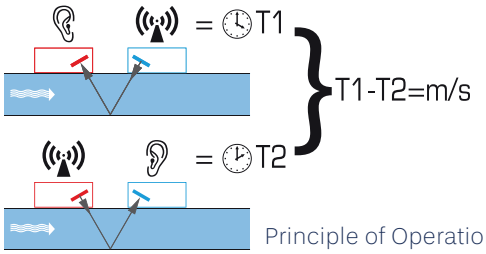
Is a New self contained wall or panel mounted version of the FM or HM with pipe-mounted, clamp-on transducers for hot, chilled or potable water applications ranging from 22 to 225mm pipe OD, in Steel, Stainless Steel, Plastic or Copper pipe. Liquid operating temperature -20°C – 135°C (-4°F – 275°F). For further details see the U1000MKII-(FM or HM) data sheets.

The U1000MKII-HM (Heat Meter):

Is a self contained pipe-mounted, clamp-on hydronic energy meter for hot or chilled water applications ranging from 22 to 180mm pipe OD, in Steel, Stainless Steel, Plastic or Copper pipe. Liquid operating temperature -20°C – 85°C (-4°F – 185°F). For further details see the U1000MKII-HM data sheet.

How does it work?

The Ultraflo range are transit time ultrasonic flow meters designed to work with clamp-on transducers, to provide accurate measurement of liquid flowing within a closed pipe, without the need for any mechanical parts to be inserted through the pipe wall or to protrude into the flow system. It takes just a few minutes to install and there is no need to shut down flow or drain the system.



Principle of Operation

When ultrasound is transmitted between the transducers, its velocity is slightly increased when travelling in the direction of flow, and slightly reduced when travelling against the flow. The resulting transit time difference is directly proportional to the velocity of the flow in the pipe. Having measured the flow velocity and knowing the pipe cross-sectional area, the volumetric flow can be easily calculated.

For the energy meters hydronic thermal energy, heat or cooling load is calculated from a combination of the flow rate and the flow and return temperature difference or delta T to comply with EN1434 section 6.

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The key benefits

Clamp-on flow & temperature sensors = fast and lower install costs

Simple to install and maintain = no specialist skills required

Non-invasive = dry servicing, minimum downtime and no pressure losses

No need to drain-down and refill systems = no or minimum disruption to services

Industry standard communications = simple integration with BEMS or aM&T

All of the above benefits are applicable to retrofit of meters in existing buildings and many are also valid for new build or major refurbishment, where the installed cost of meters >50mm with flanged connections will be greater than the equivalent clamp-on cost and for larger meters the comparative savings will be significant!

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