

A large, stylized, light gray letter 'E' is positioned on the left side of the page. It has a thick, rounded design. A small, light green arrow-like shape is integrated into the middle horizontal bar of the 'E', pointing to the right.

energy meters

altecnic

# energy meters

## Introduction

Altecnic are able to offer a range of compact energy meters from the leading manufacturers for use in heat interface units (HIU) for single apartments or for larger flow rates.

The energy meter measures the flow of water passing through it and measures the difference in water temperature between the flow and return pipes and from this information the energy used is calculated

Energy meters can also be used in cooling application as well as heating.

All meters are compliant with the Renewable Heat Incentive (RHI) heat meters MID Class 2 approved for Non-Domestic RHI.

The Non-Domestic Heat Incentive is a Government environmental programme that provides financial incentive to increase the uptake of renewable heat.

## Design Features

### Ultrasonic technology

Most energy meters use ultrasonic technology which offers many benefits:

- No moving parts which avoid wear in the metering components.
- High metering stability.
- Low energy consumption.
- Low pressure loss.
- Low start flow rate.
- Low sensitivity to suspended solids.

### Power supply

Energy meters are available battery powered or can be supplied 24V AC or 230 V AC depending upon the model and manufacturer.

### Outputs

The output(s) from energy meters are varied the most common being:

- 2 pulse inputs
- pulse outputs
- M-Bus
- Wireless M-Bus
- GPRS
- Radio output

### M-Bus

M-Bus allows the remote reading of all relevant data .

- The data can be transferred through a RS232 or RS485 serial interface using a special data cable or wirelessly.
- Protocol BO EN 1434-3 'Heat Meter, Data exchange and interface'.
- Baudrate 300 or 2400 baud (symbols or pulse changes per second).

### Pulse Outputs and Inputs

Energy meters are also available with pulse inputs to suit pulse out water meters.

The pulse out option transmits energy and volume proportional to pulses to a counting unit.

### Wireless M-Bus, GPRS & Radio Output

Plug and play communication boards open the way for data collection through various reading systems.

## Design Features

### Energy Calculator

All energy meters are supplied with an energy calculator and digital readout.

The amount of information displayed and how it is stored varies according to the energy meter.

### Sizing

Each energy meter manufacturer through the various models can offer a range of flow rates from 0.6 to 60 m<sup>3</sup>/h.

The required flow rate for the apartment or area will determine which energy meters are suitable for a specific application.

### Installation

Energy meters installed in HIUs do not require isolation valves, since there should be valves to isolate the primary flow and return to the HIU.

Altecnic have a range of ball valves available to isolated the energy meter when used for higher flow rates as a stand alone item.

### Ordering

The required output must be specified at the time of ordering the required energy meter as circuit board required is factory installed.

The Itron CF Echo II allows the circuit board to be changed at site if requirements and conditions change in the future.

### Technical Support

The Altecnic Technical Department are available to give guidance on selection of the most suitable energy meters for a given application by manufacturer, model and flow rate.

The manufacturers literature should allow be referred to for the full specification and technical details of energy meter selected.

# energy meters

Itron CF Echo II



Itron CF-UltraMaXX V



Itron Integral-V MaXX



## Product Specification

Product Code	Description
CFECHOIIMBUS15	15mm, MID approved, RHI compliant, ultra sonic energy meter with M-Bus output
CFECHOIIMBUS22	22mm, MID approved, RHI compliant, ultra sonic energy meter with M-Bus output
CFECHOIRADIO15	15mm, MID approved, RHI compliant, ultra sonic energy meter with Radio output
CFECHOIRADIO22	15mm, MID approved, RHI compliant, ultra sonic energy meter with Radio output

- The calculator can be directly mounted onto the flow meter or wall mounted.
- Two external meter inputs.
- Hand held 'walk by' reading.
- Flanged ends are available.

Product Code	Description
UMP	MID approved, RHI compliant, ultra sonic energy meter with M-Bus output
UMP	MID approved, RHI compliant, ultra sonic energy meter with Radio output

Product Code	Description
INT	MID approved, RHI compliant, mechanical energy meter with M-Bus output

# energy meters

Ista Ultego® III



Landis + Gyr T230



Sharky



Kamstrup Multical® 402



Product Code	Description
Ask	MID approved, RHI compliant, ultrasonic energy meter with M-Bus output

Product Code	Description
Ask	MID approved, RHI compliant, ultrasonic energy meter with M-Bus output

Product Code	Description
Ask	MID approved, RHI compliant, ultrasonic energy meter with M-Bus output

Product Code	Description
Ask	MID approved, RHI compliant, ultrasonic energy meter with M-Bus output