geo Green Energy Options

making energy visible

Introducing the ENSEMBLE

Pre-smart/smart ready 'one-touch-controller' - Connected Home

The Ensemble is our next generation in-home display that lets users see how much electricity they're using overall and to track up to six appliances. An internet bridge makes the Ensemble a truly smart device – users can control the appliances via a web portal or using an iPhone app, whilst a 'one-touch' lifestyle button can switch all six appliances off at once.

It can also be supplied with a ZigBee smart meter gateway.

Display views

The combined **Speedometer** and **Fuel Gauge** shows how much electricity is being used in the home right now and against a target allowance.

The **Milometer** tracks how much electricity has been used and can be viewed as consumption figures from today, yesterday or the last seven and last thirty days.

Bridge

The core 868MHz/IP bridge enables the unit to be connected to a web portal and mobile phone applications or a combined ZigBee/868MHz/IP gateway can be supplied making it 'smart-ready'.

Sensors

The display can work with up to six smart plugs (868MHz). These can be switchable or non-switchable versions. The core Ensemble uses an 868MHz CT Clamp or a DIN rail unit (in development). With the ZigBee gateway it can use our IR/LED readers or be connected to a smart meter.

- Next generation product - stylish contemporary design
- Measure and control up to six appliances
- Lifestyle 'one-touch' control button
- Internet bridge enabling remote viewing and control
- Displays your energy consumption in money, energy or CO_2
- 868 MHz radio profile
- Compatible with CT clips our new DIN rail unit
- Alternative ZigBee internet bridge for our IR/LED readers and smart meters
- Backlight option

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Ensemble Specifications

Display

Dimensions:	approx 150 x 80 x 15mm
Information:	power and consumption for whole of house power, consumption, control and timing of six appliances
History:	today, each of the last 7 days, 1 week total, 4 weeks total for whole of house, and for each appliance
Consumption Profile:	automatically learnt for each day of the week
Power consumption:	< 1W
Power supply:	mains PSU, 230Vac nominal 50Hz for UK wall socket
DC socket:	barrel-type
Radio:	868MHz
Display:	Reflective TN LCD, 100 x 60mm active area

Transmitter

Dimensions:	approx 110 x 70 x 30mm
Ambient temperature:	-20∞C to +50∞C operating, 85% RH non-condensing
Battery life:	>1 year
Battery type:	3 AA-cells, Alkaline See separate Battery Life Report
Sensor-In socket:	Barrel-type
Radio:	868MHz
Radio Transmission:	Approx 0.1% duty cycle, max. power +3dbm
Measurement:	10-bit ADC, 22kW full-scale, non-linear compensation for power-factor
Accuracy:	±5% for resistive loads, sinusoidal waveform (PF=1.000)
Measurement interval:	2 seconds

Manufacturing life:	2 yrs, i.e. components shall not have an end-of-life within 2 yrs of manufacture start
Pack includes:	display, transmitter, plug bugs, stand, clamp sensor, batteries, PSU, instructions, packaging
Warranty:	12 months

Bridge

Connections:	100Base-T Ethernet
Power consumption:	< 1W
Power supply:	mains PSU, 230Vac nominal 50Hz for UK wall socket
DC socket:	barrel-type
Radio:	868MHz

Appliance Sensor

Type:	UK plug and socket
Max current:	13 Amp AC 50Hz 240Vrms nominal
Control:	single switch with tri-colour indicator

CT Current Sensor

Type:	Split-core ferrite current clamp
Max current:	75 Amp AC 50Hz, Cat III
Construction:	3000 turns, integral burden resistor
Connection:	1.5m cable, barrel connector

Approvals

- EN 60950
- EN 61010
- EN 300220
- EN 301489
- BS1363
- CE
- RoHS
- WEEE