

# Ecodan MMSP Quick Start Guide

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## Heat Meter

### Monitoring Equipment Hardware

The total cumulative heat energy output of the system is displayed on the Supercal 531 integrator unit. The display is connected to the main body of the flow meter by a 1m cable. The display unit should be mounted remotely in an appropriate position to be visible to the customer.



Model: Sontex SuperStatic 440



Model: Sontex Supercal 531 integrator unit

Measurement type	Fluid Oscillation
Connection	3/4" male
Dimensions (WxDxH)	110mm x 125mm x 79mm
Weight	2.5kg
Power supply	Battery

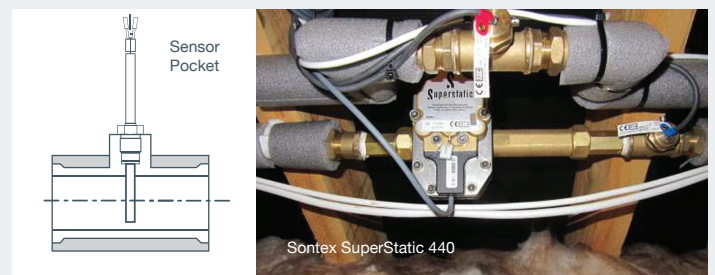
Output signal	1 pulse per Wh
Thermistors	2m PT500, flow and return
Supplied loose	2 no. t-piece 28mm x 28mm x 1/2" female; 2 no. 1/2" thermistor pockets male

\*Meters are calibrated for use with either monobloc (25% glycol) or split type ecodan (0% glycol). With Monobloc installations, ensure that the glycol content of the water correctly correlates with the calibration of the meter (25% glycol content) to ensure accurate energy usage readings are collected.

### Hydraulic Installation Details

The installation should be made "meter ready" as much as possible before the MMSP is installed. Space must be left to install the heat meter and its ancillary components. Isolation valves should be installed around the heat meter. A suitable location allowing access should also be considered.

- The flow meter and return temperature sensor t-piece of the heat meter take up the most space and need to be situated on the return pipework between the circulation pump and the distribution system of the primary circuit.
- Take care to install the meter in the correct direction of water flow. The arrow on the body of the unit should be in line with the water flow direction.
- The heat meter flow temperature sensor should be no more than 2m from the flow meter.

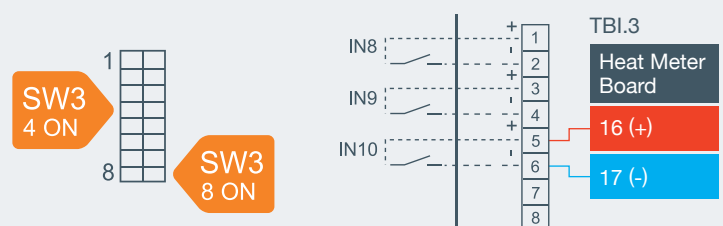


- The flow and return temperature sensors should be installed into the pockets provided. These pockets must be screwed into the supplied t-pieces.
- The temperature sensors must be mounted symmetrically in flow and return pipework. Flow and return sensors must be mounted to the bottom of the pockets.

The temperature sensor cables should NOT be extended.

### Electrical Installation Details

The FTC control board must be configured correctly before connection to any meters. The system must be powered down and the followings dip switches must be set:



# Electric Meter

## Electrical Installation Details

The total cumulative electrical energy consumed by the connected device is displayed on the Elster A100C meter.



Model: Elster A100C terminal diagram

The meter should be mounted remotely in an appropriate position to be visible to the customer.

Dimensions (WxDxH)	130mm x 47mm x 97mm
Weight	345g
Power supply	From appliance
Output signal	1 pulse per Wh
Qty.	2

In order for the MMSP to be compliant, the electrical consumption of these 3 components must be measured using the 2 electrical meters supplied. Each component will require its own circuit breaker therefore:

### MODIFICATIONS TO THE MCBs IN THE CONSUMER UNIT WILL / MAY NEED TO BE MADE!


One electrical energy meter should be installed to measure the consumption of both the cylinder immersion heater and the FTC indoor unit. The second meter should be installed to measure the electrical consumption solely for the Ecodan unit. Please refer to the electrical wiring diagram “MMSP Electrical Meters\_01” showing the position of the meters (as detailed in Ecodan MMSP Application Guide).

An example of how this can be achieved is by installing a separate distribution panel containing the MCBs for the Ecodan system. **It is up to the installer to ensure the requirements of “MMSP Electrical Meters\_01” are met using the appropriate installation method for the site in question, and using best practices at all times.**

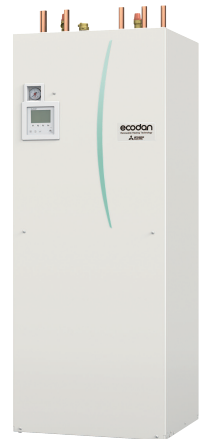
### Pulsed Output

Electricity Meter 1 - Ecodan	FTC Board - IN8
+	➔ TBI.3 pin 1 (+)
-	➔ TBI.3 pin 2 (-)

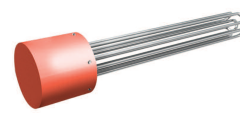
1. Ecodan



2. FTC

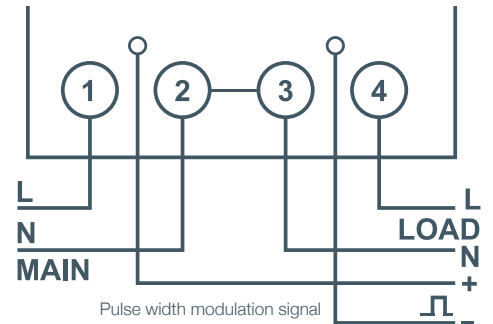


3. Cylinder Immersion Heater



The FTC control board must be configured correctly before connection to any meters. Please refer to the previous section describing dip switch settings. In most Ecodan system installations there will be 3 individual electrical power supplies for the above components.

Elster A100C terminal diagram



Continuity is essential. Crossed terminals will result in the meter not outputting pulses.

Electricity Meter 2 - FTC & Immersion Heater	FTC Board - IN9
+	➔ TBI.3 pin 3 (+)
-	➔ TBI.3 pin 4 (-)







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