



5504CMU

## C-Bus® Current Measurement Unit

The C-Bus Current Measurement Unit (CMU) provides the ability to attach split-core current transformers (CTs) that can measure the current in a.c. conductors. The CMU can then generate messages onto the C-Bus network that can be used to optimise energy use in a C-Bus installation. Furthermore, by specifying the typical installation voltage, the CMU can calculate the power consumption with a reasonable degree of accuracy and send this message onto the C-Bus network. The messages can be used by C-Bus devices such as touchscreens or the Wiser Home Control unit to display the customer's present energy consumption whilst also being able to accumulate the historical data for up to two years.

The CMU offers much more than just displaying data in that it has the ability to broadcast control messages onto C-Bus to trigger events, send alerts to management applications and perform load shedding by using in-built threshold detection. The frequency of the broadcasting of messages can be configured by the installer when commissioning the unit. This can be in the form of time between broadcasts, the degree of change, by a command (poll) from a C-Bus device or a combination of all three.

The Current Measurement Unit is a 4 module DIN-rail device that can support the connection of up to 4 CTs (catalogue number 5100CT80). The CMU can be programmed to measure current ranges from 0–40A or 0–80A. If current levels exceed the selected range however, the CMU and CTs will not be damaged. The CTs are a split-core type, meaning they simply clip around the conductor to be monitored without interrupting the wired connections.

When added sensitivity is required, the conductor to be monitored can be looped through the CT multiple times. If monitoring multiple circuits is required, the wire for each circuit can be placed through the CT. This may typically be used when all lighting circuits are monitored on a single CT.

Installation of the CMU and CTs is quick and simple. After the hardware is in place, the installer uses C-Bus Toolkit software to set up the operating parameters and messaging for the C-Bus installation. C-Bus Toolkit software has extensive Help and tutorial information to optimise the use of the CMU. The installer also uses C-Bus Toolkit software to define the configuration parameters such as the number of turns (loops through the CT) as well as the voltage and power factor of the circuit being monitored.

The CMU can connect to up to 4 CTs. Multiple CMUs can be installed onto a C-Bus network. Only one CT can be connected to each terminal block channel on the CMU. The 5100CT80 has been tested and approved to operate with the CMU to ensure the integrity of the C-Bus isolation. The units are designed to work together and are factory calibrated.

The CMU has two RJ45 sockets for C-Bus network connections. The CTs are wired to two-screw terminal blocks. The CMU draws 18mA from the C-Bus network and requires no mains power to operate.