

C-Bus Current Measurement Unit

The C-Bus Current Measurement Unit (CMU) provides the ability to attach split core Current Transformers (CTs) that measure the current in electrical circuits. By specifying the typical voltage of the installation, the CMU can calculate power with a reasonable degree of accuracy and broadcast this information onto the C-Bus network.

The broadcast messages can be used by devices such as touch screens and Wiser Home Control to present the information in a way the user can easily understand. All of the display devices can accumulate the data for up to a two years. They can then present the historical information to the user for comparison with more recent readings. The readings are stored for each measured channel, which can also have a tariff applied to give the user an indication of the cost of their power consumption.



L5504RVF

Technical Information - 5504CMU

Supply voltage	15 to 36V d.c.
Current Requirement	18mA powered from C-Bus. Does not provide power to the C-Bus network
C-Bus AC Impedance	60 K at 1 KHz
Network clock and burden	No network clock or burden provided on this unit
AC impedance	90kW @ 1kHz
Electrical isolation	3.75kV from C-Bus to mains
Maximum number of CTs per Unit	4 x 5100CT80. No other CT type may be connected for safety reasons
Current measurement range	0-40A a.c. or 0-80A a.c. 50/60Hz, software selectable
Connectors	C-Bus: 2 x RJ45 UTP Cat 5e CTs: screw type
Indicators	C-Bus and unit indicators
Accuracy	2.5% across full scale on both 40A and 80A ranges
Warm-up time	10 Seconds
Mounting	Din Rail (4 modules wide)
IP rating	IP20
Weight	127gm
Operating temperature range	0° to 50° C
Operating humidity range	10 to 90% RH (non-condensing)
Line voltage and power factor	Not measured by the CMU. Defined by the installer during software configuration

Product Features

- Measures and reports a circuit's instantaneous electrical power consumption over C-Bus
- Current monitoring is performed via a split core current transformer (CT)
- 4-channel unit (measure up to 4 electrical circuits per unit)
- Display energy use on C-Bus 6.4" Colour touch screen, Schedule Plus and Wiser Home Control
- Raises C-Bus alerts and warning messages based on predefined thresholds
- Control electrical devices based on predefined thresholds (load shed)
- Can provide confirmation that electrical devices are operating as expected
- DIN rail mounted, 4M wide
- C-Bus supply voltage: 15–36V d.c. @ 18mA (does not provide power to the C-Bus network)
- CT is split core type and measures current between 0–80A (supplied separately)

Technical Information - 5100CT80

Measurement range	0-40A or 0-80A, a.c. 50/60hz
Accuracy	2.5% over full range
CTs per CMU	Up to 4 CTs, one per input channel
Calibration	Calibrated in factory, no field calibration required.
Weight	78gm
Operating temperature	0° to 50° C
Construction	High impact plastic case with hinge and clip
Aperture	15mm nominal diameter
Wire lead length	102cm
Dimensions	30 x 43 x 28 mm
Isolation	3.75kV a.c. for 1 minute

Catalogue Number	Description
5504CMU	C-Bus Current Measurement Unit (CMU)
5100CT80	Current Transformer (CT), 80A