

**Split-core AC Current Transformer (CTV)**  
(AC Amperage to DC Voltage Transducer)

Doc. #: 6225-E Part #: MAN-CTV

For use with HOBO® U12 series data loggers and HOBO data nodes


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6225-E MAN-CTV

Part Number	Current Range	Dimensions			
		Window Size	Length	Width	Height
CTV-A	0-20 AMPS AC	28 x 20 mm (1.1 x 0.8 in.)	79 mm (3.1 in.)	71 mm (2.8 in.)	36 mm (1.4 in.)
CTV-B	0-50 AMPS AC	28 x 20 mm (1.1 x 0.8 in.)	79 mm (3.1 in.)	71 mm (2.8 in.)	36 mm (1.4 in.)
CTV-C	0-100 AMPS AC	28 x 20 mm (1.1 x 0.8 in.)	79 mm (3.1 in.)	71 mm (2.8 in.)	36 mm (1.4 in.)
CTV-D	0-200 AMPS AC	39 x 32 mm (1.54 x 1.26 in.)	100 mm (3.92 in.)	120 mm (4.72 in.)	29 mm (1.14 in.)
CTV-E	0-600 AMPS AC	74 x 62 mm (2.92 x 2.46 in.)	135 mm (5.3 in.)	150 mm (5.91 in.)	28 mm (1.12 in.)




**Specifications:**


- Accuracy with U12:  $\pm 4.5\%$  of full scale (includes logger accuracy)
- Accuracy with ZW:  $\pm 4.0\%$  of full scale (includes data node accuracy)
- Response time (from 10% to 90% of amplitude):
  - CTV-A approx. 440 milliseconds
  - CTV-B approx. 200 milliseconds
  - CTV-C approx. 100 milliseconds
  - CTV-D approx. 450 milliseconds
  - CTV-E approx. 490 milliseconds
- Input Current: AC current, sine wave, single phase 50 Hz or 60 Hz, load power factor 0.5 to 1.0 lead or lag
- Output: 0-2.5 VDC
- Voltage rating: 600 VAC.
- Temperature rating
  - CTV-A, -B, -C:  $-15^{\circ}$  to  $+60^{\circ}\text{C}$  ( $+5^{\circ}$  to  $+140^{\circ}\text{F}$ ),
  - CTV-D, -E:  $-15^{\circ}$ : to  $+40^{\circ}\text{C}$  ( $+5^{\circ}$  to  $+104^{\circ}\text{F}$ )
- Construction: Molded plastic housing for indoor use per UL508
- Cable: 1.8 m (6 ft.), compatible with U12 family external inputs
-  The CE Marking identifies this product as complying with all relevant directives in the European Union (EU)

## Notice

- This product is not intended for life or safety applications.
- Do not install this product in hazardous or classified locations.
- The installer is responsible for conformance to all applicable codes.
- Mount this product inside a suitable fire and electrical enclosure.



**DANGER**  
**HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH**



Failure to follow these instructions will result in death or serious injury.

- Follow safe electrical work practices.
- See NFPA 70E in the USA, or applicable local codes.
- This equipment must only be installed and serviced by qualified electrical personnel.
- Read, understand and follow the instructions before installing this product.
- Turn off all power supplying equipment before working on or inside the equipment.
- Use a properly rated voltage sensing device to confirm power is off.
- DO NOT DEPEND ON THIS PRODUCT FOR VOLTAGE INDICATION
- Specification Note: For CE compliance, conductor shall be insulated according to IEC 61010-1:2001, Installation Category III or equivalent. The product design provides for basic insulation only.

## Using the CTV with the HOB0 logger or data node

1. Insert the 2.5 mm plug of the CTV into an external input (black 2.5 mm jack) of a U12 series data logger or a ZW series data node.
2. To start the U12 logger, go to the Launch function within HOB0ware® software. Use HOB0node Manager within HOB0ware for the data node. For more details on software, please refer to the software manual.
3. Select the correct AC current range in Software.  
The current range of the CTV is provided on the CTV label. Failure to select the correct range will result in inaccurate data.  
**Do not exceed the AC current rating of the CTV**
4. In the software for the U12 logger, be sure to enable the appropriate channel and select the range within the **Channels and Sensors** selection window. For ZW data nodes, select the sensor type (-A, -B, etc.) in the Configure Sensor pane that matches the Current Transformer model number.

## Installation

- The I-bar can be hinged open in order to install the CTV around an individual wire carrying a single phase.
  - 1) Rotate the I-bar open (on the CTV-D and -E units, press in the I-bar tabs to open, 2) place the wire in the CTV window, 3) snap the I-bar closed.
- The I-bar on the CTV-D and CTV-E units is fully removable for easy installation. Make sure the I-bar is replaced in the proper orientation to ensure correct readings. The contacts on the unit and I-bar are marked with matching notations.
- The CTV-A, -B, and -C units are provided with a snap-on mounting plate which can be removed from the CTV and mounted separately. Mount the plate under the wire you want to monitor and, once the cable is installed into the CTV, snap the CTV/wire assembly onto the mounting plate.
- You can remove the CTV from the plate by opening the CTV and sliding it off the plate or gently rocking the CTV slightly and pulling up at the same time.