



Universal Current Transducer

CT-100V is designed to measure up to 100 Amps load current for 50 or 60 Hz main power. Its unique design allows 0-5VDC signal output for 5 current ranges. The CT-100V's 4 position DIP switch allows you to select between 5 different current sensing ranges; from 0- 2.5A, 10A, 20A, 50A and 100A.

Each selected range via 4 position DIP switch generates 0-5VDC output signal proportional to the current passing through the split core transducer.

Specifications

- Output Signal:** 0-5VDC
- Max Load Current Measured:** 100Amps (50 or 60Hz)
- Measurement Accuracy:** +/- 2% F.S.
- Linearity:** +/- 2% F.S.
- Accuracy over Temperature:** +/- 1% F.S.
- Operating Voltage:** 14-35VDC or 20-26VAC
- Maximum Output Signal:** 6VDC
- Current Transformer:** Split type with latch
- Status Output:** Red LED intensifies as current increases
- Operating Temperature:** -20°F to +150°F (-30°C to +65°C)
- Storage Temperature:** -40°F to +170°F (-40°C to +77°C)
- Operating Humidity:** 10 to 95 %RH non-condensing
- Storage Humidity:** 10 to 98 %RH non-condensing
- UL Approval:** E76576

Dimensions

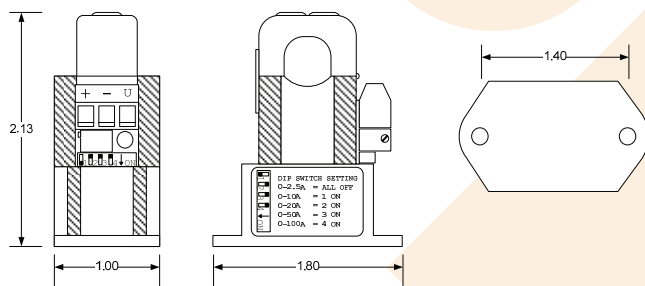


Figure 1

WARNING: To reduce risk of electrical shock, always open or disconnect circuit from power-distribution system (or service) of building before installing/servicing current-sensing transducers

Installation

The following steps should be taken to install CT-100V:

1. Set the DIP switch for the intended load current measurement. The DIP switch setting is shown on the label attached to the CT-100V housing.
2. Mount the CT-100V via 2 flanged mounting holes (1.400" apart) in a suitable place, close to the load wire where the load current will be measured.
3. Open the CT clamp latch and place the load wire inside the CT opening.
4. Close the latch making sure that the closing is smooth and there are no objects stuck in the split section when the latch is closed (This will change the readings drastically if the latch is not properly closed). CT-100V has three terminal wiring blocks to make connection simple and fast.
5. Connect CT-100V "+" terminal to +14 to +35 VDC (or 20-26VAC) power supply. The DC power supply can be unregulated provided that the peak DC voltage does not exceed +35 VDC and the bottom of the voltage (ripple) is higher than +14 VDC.
6. Connect CT-100V "-" terminal to the common (ground) of the power supply and also to in the input/output common of the controller that will sense the 0-5V signal.
7. Connect CT-100V "U" signal output terminal to your data collection device (DDC controller, datalogger, etc.)

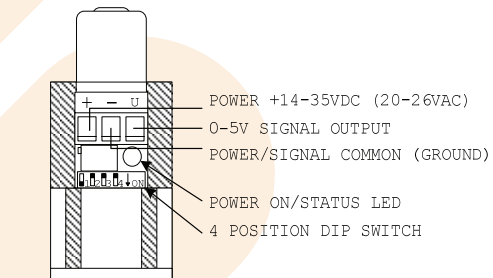


Figure 2



Figure 3

Switch position away from switch number is OPEN. Only 1 switch should be ON/CLOSED at a time. Figure 3 shows 0-10A scale.

- 0-2.5A = All switches OFF/OPEN
- 0-10A = Only switch 1 ON/CLOSED
- 0-20A = Only switch 2 ON/CLOSED
- 0-50A = Only switch 3 ON/CLOSED
- 0-100A = Only switch 4 ON/CLOSED