

# 300/3000 Amp Flexible Dual Range AC Current Transducer

The Dent Instruments flexible current transducer (CT) is designed to measure AC current in places where standard CTs cannot. The size and flexibility of the sensor enables measurement on large buss bars, cable bundles, and conductors with irregular shapes. The Dent Instruments flexible current transducer:

- is a dual range sensor; switchable between 300Amp and 3000Amp ranges
- is 36" long with an 11 inch inside diameter
- measures from 10 to 3000Amps
- has a 333mV output



*Figure 1: Dent Instruments flexible current transducer.*

## Installing the Flexible CT

The flexible CT is compatible with the Dent Instruments ELITEpro portable recording power meter and other power meters that accept a 333mV input signal. Refer to the [Elite Logger](#) application note for instructions on configuring the Elitepro for this CT

1. **Press the *Power* button to activate the sensor and to change the range.** Press the *Power* button to toggle between the 300A and the 3000A ranges and to turn the sensor on and off. A green blinking LED light indicates that the sensor is turned on and which range has been selected. If there is a red blinking light next to *Change Battery*, replace the 9 volt battery by removing the 4 Phillips-head screws in the back of the sensor interface box.
2. **The white banded lead is positive.** Attach the white banded lead to the positive terminal of the data logger and the black or blue lead to the negative terminal.

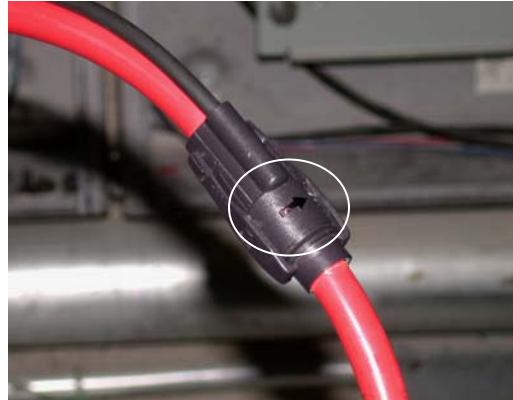


*Figure 2: Sensor box*



*Figure 3: Squeeze the clip to release the sensor loop.*

3. **Open the sensor loop by squeezing the two grey plastic clips on the coupling.** Wrap the CT around the conductor and snap the ends together (*Figure 3*).
4. **The flex CTs are directional.** The arrow on the connector near the clips should point toward the load (*Figure 4*).
5. **Install the CT so that the sensor's coupling is not contacting the conductor.** The CT coupling contacting the conductor can be a source of substantial error.
6. **To turn off the sensor after logging has been completed, press the *Power* button until the LED light is no longer on.**



*Figure 4: Arrow points towards load.*

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## Increasing Sensor Sensitivity

**If the load being measured is too small for the CT to detect, double wrap the transducer loop around the conductor to increase sensor sensitivity.** This will effectively double the mV output to the logger. If the CT is doubled program either 150A or 1500A (depending on which range has been selected on the sensor box) into the CT ratio field of the data logger's set-up table. The Flex CT will require at least 12A of current to measure accurately, even when doubled.



*Figure 5: Double wrap the CT to increase sensor sensitivity.*