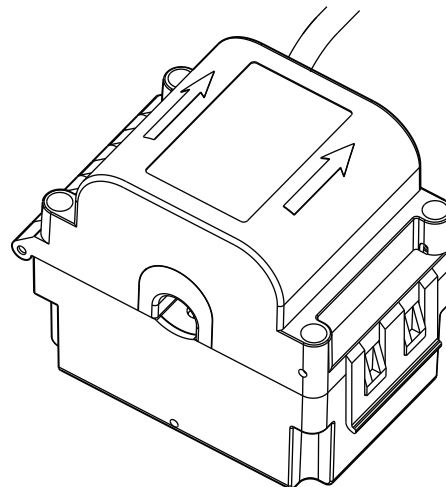


EKM METERING INC.

PSCT-019-200 Current Transformer Spec Sheet



I. Functions and characteristics

All of our current transformers (CTs) have been designed with care to provide accuracy and consistency, in conjunction with our Omnimeter line of kWh meters, for a wide variety of users and use cases. This model is unique because, in addition to providing a current reference to the meter, it also provides a way to pierce the wire insulation to tap into the conductor. This tap energizes a third wire (red) that is then connected to the meter for the line's voltage reference that the meter requires.

II. Technical Specifications

- 1.) Model: PSCT-019-200
- 2.) Type: Piercing Split Core
- 3.) Rated Input: 0-200 Amps AC
- 4.) Inside Diameter: 10mm and 19mm Inserts
- 5.) Outside Dimensions: 52.5mm x 78.75mm x 67mm
- 6.) Output: 26.6mA
- 7.) Accuracy: $\pm 0.1\%$ accurate.
- 8.) When used in conjunction with our Omnimeters, the installation will have an accuracy of $\pm 0.5\%$.
- 9.) Leads: 9 feet long, black and white for current, red for voltage
- 10.) Internal windings: 7518
- 11.) The arrows point towards the load.

III. How to Choose CTs

When choosing current transformers, you should consider four factors:

- How many CTs do I need for my electrical system?
 - Use 1 CT for 120 volt (or foreign 2-wire systems).
 - Use 2 CTs for a 120/240V three-wire system (two hots and a neutral, with or without ground).
 - Use 2 CTs for 3-phase 3-wire systems (3 hots and no neutral).
 - Use 3 CTs for 3-phase 4-wire systems (3 hots and a neutral).
- What is the wire diameter that needs to pass through the CT?
- What is the maximum amperage of the system being metered?
- Do you want CTs that open (split core), or are closed (solid core)?

IV. Installation

- 1.) Install in a protected environment or enclosure.
- 2.) We recommend that you do not lengthen the CT leads as this may decrease accuracy.
- 3.) Make sure that the power is turned off and that the wires being measured are not energized.
- 4.) Open the CT by pulling out on the plastic clasp.
- 5.) Remove the paper protector from the core mating surfaces.
- 6.) Use one of the two CT inserts that is provided that best suits your wire diameter. The small insert will accept up to 10mm wires, the large insert up to 19mm wires.

To change the insert first remove the insert that is in the CT. You can do this by spreading the CT case and unclipping the ends of the insert with a screwdriver or other tool. Make sure that you do this on a flat surface so the CT core does not fall out when the insert is removed (Fig. 1). The core is free to come out once the insert is removed. Once the insert is removed you can snap the other one into its place. Make sure the CT core remains in place when you do. The new insert should hold it in place just like the other insert did.



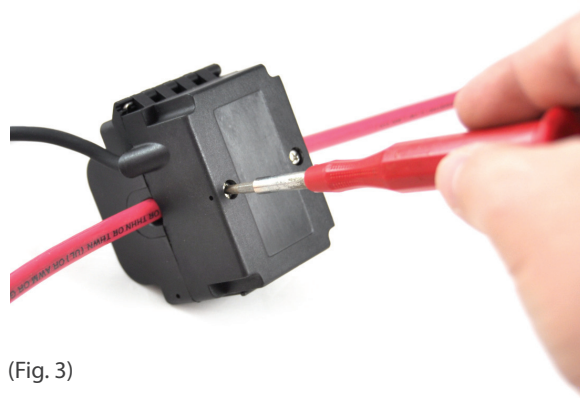
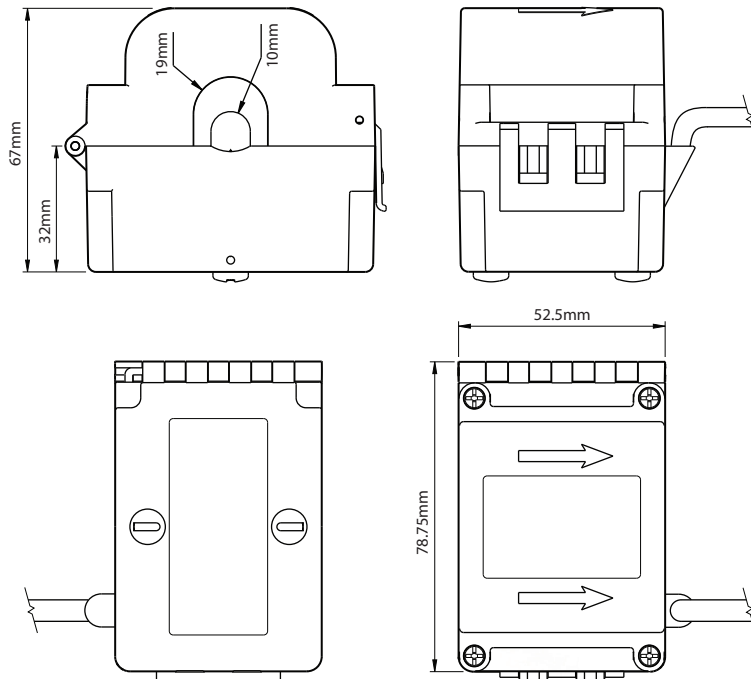
(Fig. 1)



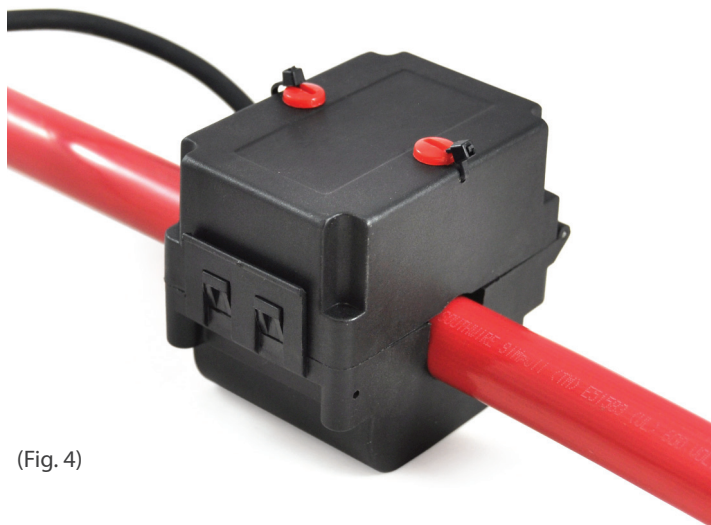
(Fig. 2)

IV. Installation Continued

- 7.) Install the four screws provided into the four corner positions on the CT. Make sure that the each screw is able to screw into it's receiver on the opposite half of the CT. (Fig. 2)
- 8.) Snap the CT around the wire being read and make sure the plastic clasp is securely closed.
- 9.) Screw the four screws into the corner positions on the CT to hold the CT closed around the wire being measured. Make sure that all four screws are in tight before proceeding.
- 10.) Position the CT where you want it on the wire being read.
- 11.) Screw in both piercing screws until they pierce the wire insulation and make solid contact with the conductor. (Fig. 3)
- 12.) Insert the red caps to cover the heads of the piercing screws and secure them with the zip ties that are provided. (Fig. 4)
- 13.) Label both the CT and the CT lead wires so you know which ports to connect to on the meter.
- 14.) Connect each wire to the appropriate port on the meter (Fig. 5). These will vary depending on which line the CT is installed on. Once all wires are connected properly, and your meter is installed, you can turn the power back on. Your meter should power on. If it does your meter is now active and you will begin to see data cycle on it's LCD display.



(Fig. 3)



(Fig. 4)



(Fig. 5)