SHM COMMUNICATIONS LTD

Engineering Energy Information

Valley House, Winnall Valley Rd., Winchester SO23 0LD
Tel: +44 (0) 1962 865142 **www.shmcomms.co.uk**

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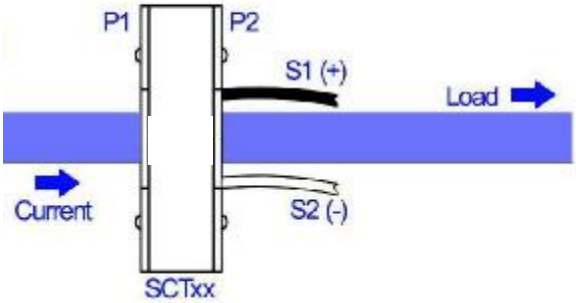
App Note: Installation of Northern Designs Retrofit split CTs

The full manual is available on the SHM web site.
http://www.shmcomms.co.uk/tech_support/tech_manuals.htm

Polarity matters: If a current sensor is placed on the cable in the opposite orientation the associated phase kW reading will be negative.
The secondary cables also require wiring with correct polarity.



Installation

- Isolate power in the primary conductors.
- Obtain the relevant schematic from the meter Installation and Operating Manual.
- Insert a finger through the hole to pull the split section to remove it from the CT.
- Keep the split section and main body of the CT together as a pair.
- Place the CT over the correct isolated primary conductor
- Note the secondary wires should be closest to the load (labelled P2 on the meter schematic).
- Replace the split section and push until it clicks firmly into place.
- Connect the secondary wires to the meter (S1, S2)
  - White cable (or black/white) is the negative and should be connected to S2 or CT- on the meter.
  - Black cable is the positive and should be connected to S1 or CT+ on the meter.
- Check all wiring before re-energising the load.

NOTES:

- The output from these current sensors is a low voltage. It is safe to leave these outputs open-circuit if not connected to a meter.
- The output connections from these current sensors must be individually wired direct to the meter.
- CTs must NOT be earthed or connected to any other circuit.
- If the sensor secondary cables require extending, use of screened twisted pair cable, not exceeding 5m in length, is recommended to reduce the effects of electrical interference.
- This cable must have an insulation rating >250V.