

**ISKRAEMECO MT 174**

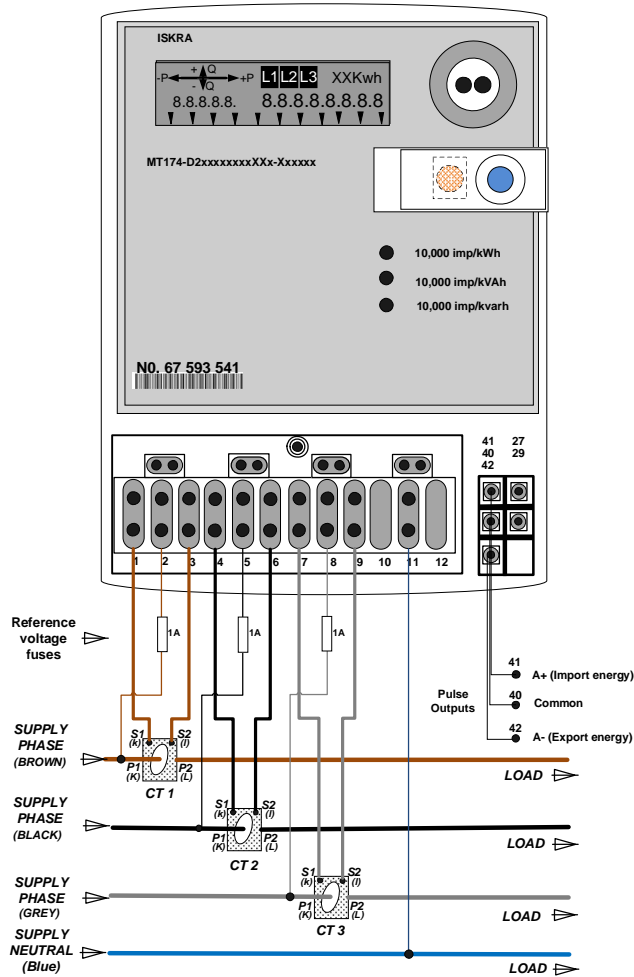
## **5A CT METER INSTALLATION**

### **Meter Installation:**

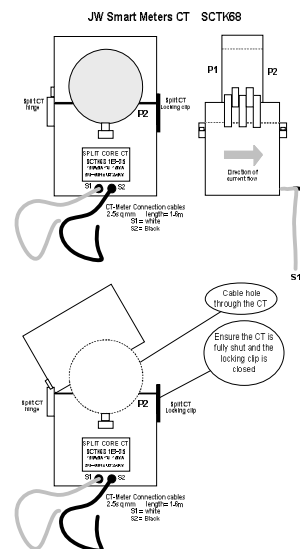
**DANGER !**

- Note that this work should be only carried out by suitably qualified and trained personnel.
- The meter circuit should be isolated while making changes to the wiring.

### Connections to CT version of ISKRAEMECO MT174 Meter



### SAMPLE INSTALLATION USING JW SMART METERS SPLIT CORE CT



**Note that in the case of equipment that generates energy, the “supply” side is usually connected to the generator and the “load” side to the mains. For an “export” meter the same applies.**

**If in doubt: ASK for advice.**

**Installation Checks:****Supply Voltages:**

- Check the L1, L2, L3, indicators on the meter display – these should all be on.
- Missing indicators show a phase voltage missing. Check supply and reference voltage fuses.
- Flashing indicators show incorrect phase rotation – two pairs of phase voltage cables must be swapped, e.g. exchange the L1 (both in & out cables) with the L2 (both in & out cables).

**Currents and Energy Direction:– How to check each phase separately IF IN DOUBT: ASK**

- To perform this test a load must be drawing current from the supply so that the meter is operating.
- Isolate 2 phases (normally by removing the relevant voltage reference fuses). Isolate and short out the remaining 2 CTs **CAUTION: Always ensure that CTs are shorted or dangerous voltages can be present on CT cables**
- Only keep the CT on the phase circuit to be checked. You are now working with one phase voltage only – check that the P arrow indicators on the meter display show P+
- If there is no arrow and energy flow (Kw) is not present, either the installation is not under load OR the CT being checked is not installed onto the relevant phase cable.
- Once checked, isolate this phase and CT and repeat this test for the other phases checking for P+.
- If P- is showing instead of P+ the CT is the wrong way around the supply cable. P1 should be on the supply side (or direction of current flow side) of the cable. OR S1 and S2 are connected the wrong way on the meter terminals.
- Finally, re-connect all supplies and check all CTs are correctly terminated. As a final check display the reverse (export) reading on the meter by accessing the additional displays using the blue button as shown above. Make a note of the reading then check a few minutes (or hours) later – the value should not increase.
- Note that some loads result in energy flow in two directions – e.g. a grid connected wind turbine will draw a small current for its control circuitry in the reverse direction when not generating.

**Meter LEDS:**

Once powered up and in operation you can check the operation by observing the LEDs on the front of the meter:

**LED operation:**

**OFF** = No voltage to meter

**ON** = Voltage OK No current flowing through the meter

**BLINKING** = Energy registered by meter (proportional to load being measured)

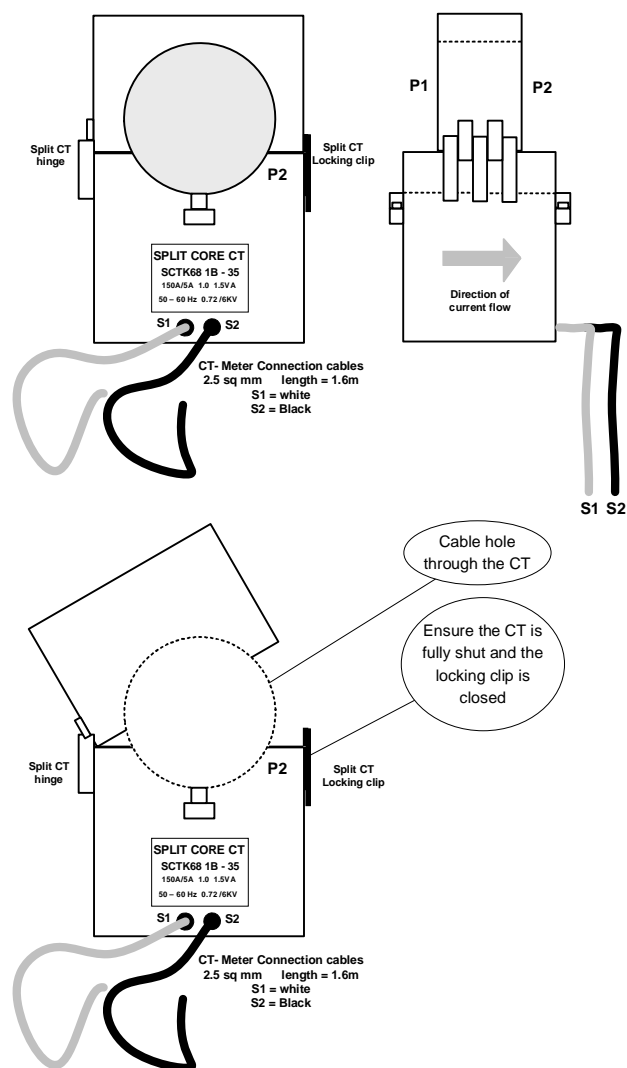
*See next page for sample of CT installation*

## ISKRAEMECO MT 174

## 5A CT METER INSTALLATION

### CT Installation Details:

#### JW Smart Meters CT SCTK68



### Instructions for installation:

**Note: The system should not be energised whilst installing**

- Check the meter CT ratio setting corresponds to the CTs supplied.
- Ensure all CTs are the same current ratio (e.g. all 100/5A).
- Open clip and fit the CT around the cable to be monitored. Follow the arrow on the side of the CT for installation direction.
- Ensure all CTs are installed the same way.
- **Ensure the CT is fully closed and the clip is secure.**
- Make the 'S1' (white) & 'S2' (black) connections to the meter.
- Ensure that the relevant CT is terminated for each relevant phase (i.e. L1 phase = CT1 etc).
- Ensure all connections are tight and energise the meter.
- Carry out the tests as described above.