



# Datasheet

# IsoFlex

## User area:

The IsoFlex is a portable tool to be used as a complement to fixed installed supervising earth fault systems or five wire fault systems in an AC system.

When the supervising system alarms, the IsoFlex is able to control in which group wire or burden the fault is to be found. The flexible current sensor allows metering during operation even in places that are hard to reach in a distribution board or switchroom. The meter accuracy is high ( $\pm 10\%$ ) and is able to recognize current faults down to 50mA.

## How to use the IsoFlex:

First, the CA5205 multimeter is put in position "V". The output signal on the current sensor is put in position 100mV/A. The result is that a current fault on 1A is shown as 0,1V at the multimeter, 100mA is shown as 0,01V.

Upon current sum metering, which is the method used for measuring earth faults or five wire faults, all wires that normally lead electricity (phases and earth) must be covered by the current sensor, PE. Thus, the earth wire (skyddsjordsledare) must pass outside the sensor.

## Metering tips:

1. Upon measuring parallel cables to the same burden, phase and earth in all wires must be covered by the current sensor.
2. The level of current faults that are read off a fixed assembled unit do not necessarily correspond to the value on a portable instrument. This is caused by several faults that may be found on each group and these currents are normally normal in different phase angles.
3. Current faults that are measured in the PE protection sensor cannot be compared to sum current measuring. Earth fault currents may choose several ways back to the supplying transformer, and divided on the total PE-system as well as all other electricity leading objects in the facility.
4. The most frequent fault in a five wire system is that the earth and PE are connected. This fault does not result in fuses or current protectors to discharge.
5. In a five wire system with three-pole fuses, current faults may be shown even if the current device is turned off. This may be caused by faults according to point 4, circulating currents in the facility that are redirected through the earth since this is not discharged at three-pole break.

## NOTE!

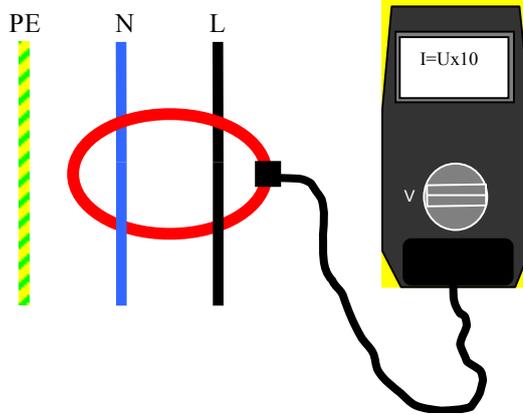
As always when working in an electrical environment, caution must be taken.

In a five wire system, the earth is always to be treated with as much respect as the phase leader. If the earth is connected incorrectly between different groups, the earth may be fully electrically activated even if the current device is turned off or if the fuses are removed.

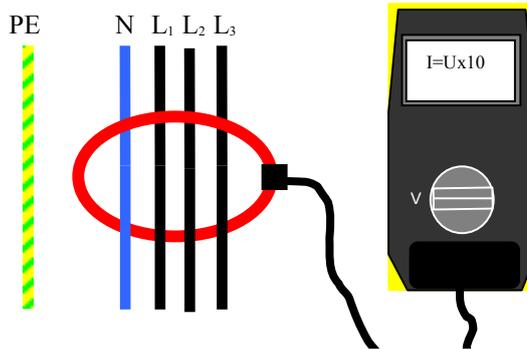
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Single-phase measurement



Three-phase measurement including earth (N)



Three-phase measurement without earth

