

User Guide DigiFlex

User area:

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

When the supervising system alarms, the DigiFlex is able to show 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 20mA.



How to use the DigiFlex:

Apply the flexible current sensor around where you want to measure and start the instrument.

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 neutral) must be covered by the current sensor. PE, the earth wire must pass outside the sensor.

Metering tips:

1. Upon measuring parallel cables to the same burden, phase and earth in all wires must be inside the current sensor.
2. The level of fault that is monitored in a fixed mounted unit does not necessarily correspond to the value on a portable instrument. This is caused by that several faults may be found on each group with different phase angles.
3. Current faults measured in a earth wire (PE) may not be compared to sum current measuring. Earth fault currents may choose several ways back to the supplying transformer, and split out over the total system as well as other electrically lead 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.

