




## Sensorform EFI-CLZ-50

### Earth Fault Indicator, CT powered, with Flashing LED Indicator

- Powered from CT attached to one of the Phases
- High brightness LED primary indicator
- Automatic reset of fault state when power restored
- Manual reset of LED by Test/Reset button on front panel
- LED based Remote Indicator (optional)
- Aux Relay contact for remote alarm generation (optional)

## DESCRIPTION

Sensorform EFI-CLZ-50 is one of a family of Earth Fault Indicator products that are designed to assist in the rapid location and isolation of faults on high voltage networks (1-36kV) in single-sided feed or open ring main systems. When an asymmetrical current greater than 50A in a 3 phase cable is detected an earth fault is indicated by means of a flashing LED (Light Emitting Diode) indicator. The CLZ-50 is powered from load current flowing in one of the phases of the HV cable using a split core current transformer mounted on the screened part of the cable.

For Earth Fault Detection, a current sensor is fixed around the three phases of the cable system being monitored and will detect a current imbalance due to an earth fault. An earth fault trip is indicated by a flashing LED indicator on the unit, together with a second LED based Remote Indicator (optional). An auxiliary relay contact is also provided as an optional extra for signaling an alarm to other systems. In an open ring network the path of the fault current from the feeding point to the fault location is marked by the triggered EFI's. The defective conductor segment is located between the last EFI that has been triggered and the first EFI which is still inactive.

## FEATURES

- Powered from CT attached to one of the Phases
- Primary LED indicator
- Automatic reset of fault state when mains power is restored
- Manual reset of LED by Test/Reset button on the front panel
- CT100 Current Sensor (standard)
- CT150 Current Sensor (optional)
- CT300 Current Sensor (optional)
- LED based Remote Indicator (optional)

Distributor:

## SPECIFICATIONS

### General

<b>Power Source:</b>	CT on Current Carrying Phase
<b>Network Volt. Range:</b>	1-36kV
<b>Impulse Voltage Withstand:</b>	10kV, 1.2/50µS waveform
<b>CT Power Supply charging time:</b>	8 min at 50A phase current
<b>CT power Supply range:</b>	10A to 600A phase current
<b>Trip Current:</b>	50A ±10%
<b>Primary Indication:</b>	Flashing LED@1Hz
<b>Flashing Duration:</b>	8 hours nominal
<b>Min. Fault Duration:</b>	2.5 cycles (50ms @ 50Hz / 40ms @ 60Hz)
<b>Manual Reset:</b>	Push button on front panel
<b>Automatic Reset Period:</b>	10 Seconds after mains restore
<b>Manual Trip Test:</b>	Manual Push Button
<b>Operating Temp Range:</b>	-20° to 55° C
<b>Operating Humidity Range:</b>	0-100% RH
<b>Dimensions:</b>	115mm x 65mm x 40mm
<b>Degree of Protection:</b>	IP65
<b>Mass:</b>	250g
<b>Current Sensor Diameter:</b>	Standard CT100: 100mm Optional CT150: 150mm Optional CT300: 300mm
<b>Remote Indicator (optional) Indication Method:</b>	Flashing LED @ 1 Hz
<b>Remote Indicator (optional) Flashing Duration:</b>	4 hours nominal
<b>Remote Indicator (optional) Dimensions:</b>	M12 Hex Bolt 50mm long
<b>Auxiliary Relay (optional) Type:</b>	Latching, N/O on reset
<b>Auxiliary Relay (optional) Rating:</b>	220VDC, 250VAC, 2A, 60W
<b>Auxiliary Relay (optional) Lead type:</b>	2-core, 0.5mm <sup>2</sup> double Insulated

Suparule Systems Ltd.,  
Suparule House,  
Lonsdale Road,  
National Technology Park,  
Limerick, Ireland.

Ph.: +353 (0) 61 201030  
Fax.: +353 (0) 61 330812  
Email: info@suparule.com  
Web: www.suparule.com