power

SFL 1

Sheath Fault Tester

Reliable and cost effective sheath fault locator/earth fault detector

Sheath/earth faults develop on any type of underground cable network such as low, medium, high voltage power cables or unshielded multi core control cables. It can be a manufacturing defect or can be caused by improper handling during laying / external damage/any other factor due to which the metallic armor or cores develop leakage with the mass of earth

These faults can remain undetected for longtime as they do not hamper the working of the cable. It develops into a full fledged fault over a period of time. Earth Fault Tester SFL1 is a powerful system that can successfully locate sheath/earth faults on any type of cable.

It offers different modes such as HV Test, Burning, pre-location and pin-pointing.

HV Test

Completely isolated cable (including earth connections removed at both ends) is subjected to HV Test up to 5 kV DC with respect to the mass of earth. This gives diagnostic result of the health of the insulation of the cable under test.

Burning

A high resistance nature of the fault on the cable can be altered by burning it. This is necessary in some specific cases

Pre - Location

SFL 1 derives Voltage drop from either end of the cable, which is then used for evaluating the fault distance from the test end using bridge method. It uses micro-controller based fault distance calculator that enables the operator to achieve the pre-location measurements with precise accuracy. It is extremely user friendly and requires minimum operational skill to get the precise result. The micro-controller based fault distance calculator has provision for storage of three test results in its volatile memory locations for comparison.

Pin - Pointing

SFL 1 output is connected between the cable and the mass of earth at pulsed mode. The DC current flows through the cable up to fault point and returns back through the mass of the earth to the sending end.

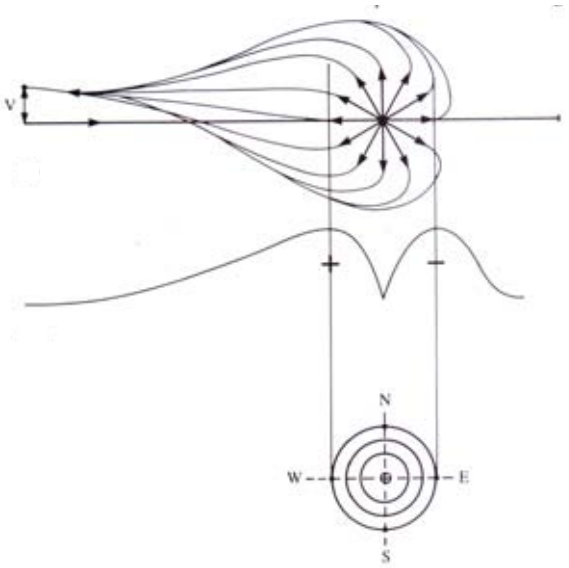
This produces currents in the ground whose paths fan out at the fault point. These currents can be monitored by two metallic ground sticks connected to a highly sensitive receiver EFL1. Center zero galvanometer on the receiver gives deflection in one direction before the fault point on the cable length and changes the direction beyond the fault point. Null condition is achieved at the fault point. This is how the exact point of damage is pin-pointed effectively.

Customer service

All instruments have been designed based on safety, capability, field application, ruggedness and ease of operations. We try to offer the best possible solutions for the job. We not only offer our after sales services to the customers through our branches / authorized agents, but also offer training to the working staff of the customer under specialized training programs.

Pool of potential

SFL 1



Pool of potential - current and voltage distribution in the ground

Specifications

SFL 1

Sheath Fault Tester

Power Supply	:	230 V / 240V AC, 50-60 Hz 600VA MAX.
Test Voltage	:	0 - 2.5 kV 200 mA max 0 - 5 kV 100 mA max
Pulse ratio (Pin-pointing)	:	1:3s, 1:6 s (On-Off time ratio)
Sheath drop indication	:	4.5 digit DPM 0-1.9999 V indication
Fault Distance Calculator	:	Display: 16 x 2 Character backlit LCD Memory storage: 3 volatile memories
DPM power supply	:	6 V 1.5 AH rechargeable battery with external battery charger
Dimensions	:	450 (L) x 266 (W) x 370 (H) mm
Weight	:	29 Kg approx

Sheath Fault Receiver EFL 1

Sensitive galvanometer with six stage amplification

Power Supply	:	8 x 1.5 V alkaline AA size batteries
Dimensions	:	235 (L) X 132 (W) X 127 (H) mm
Weight	:	1.8 Kg.

Probes

Length	:	1000 mm
Weight	:	1.5 Kg

Detatchable in two parts for ease of transport