

TFL 6 Cable Fault Pre-locator



Description

Cable Fault Pre-locator TFL 6 is a latest micro-processor controlled, menu driven, digital technology to offer precise fault distance in any type of metallic cables.

It is a portable equipment easy to use, single - phase unit for cable fault pre-location of short and open circuit fault by using the Time Domain Reflection (TDR) method in low, medium and high voltage cables.

Another Impulse Current Method (ICM) is available and use for pre-location of low insulation or intermittent nature cable fault by coupling with High voltage surge tester.

The maximum measuring ranges enable for pre-location of cable fault is 16 km.

Application

It is used for pre-location of short circuit, open circuit fault distance in TDR mode and Low insulation / high resistance / flashing fault in ICM mode with the help of suitable High voltage surge tester by power transmission and distribution network companies and service providers.

Features

- Two selectable work mode Time Domain Reflection (TDR) & Impulse Current (ICM) Method.
- Capable to locate faults in any type of metallic single core armored or multi-core armored cables.
- Comparison facility of faulty cable with healthy.
- Maximum measuring range up to 16 km.
- Interactive Menu - Guidance.
- Auto cursor positioning at fault point.
- Zoom facility of fault trace incase of difficult pre-location.
- Printer connection through PC via RS 232.
- Use high speed Micro-controller
- Memory up to 50 echo - grams.
- Big LCD display with back light facility.
- Internal battery capable of working for maximum 5 hours continuously.
- Auto shut down under idle running condition.
- Manual gain adjustment facility.
- Intelligent charger for charging of internal batteries.
- Compact, light weight and user friendly menu driven operation.



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Working Principle

TDR Mode

A narrow electromagnetic pulse of 40 ns -3.56 us with a fast rise time is sent on the cable that reflects back from the fault point /far end where the impedance was change. The VOP for each cable depending on the cable dimension is set. The distance to the fault is then computed automatically and displayed in meter on screen.

ICM Mode

A HV surge tester applies dc high-voltage and high energy across the fault to the cable under test that induces a breakdown or flash over across the fault in the cable and the transient are developed at the fault point .The transient travels back and forth between the HV surge tester and the fault. The current transient is measured using a current transformer with a frequency response adequate to resolve only the edges of the current transient. The distance to the fault is then computed automatically and displayed in meters on screen.

Standard Accessories

- TDR measurement testing cable
- ICM measurement testing cable
- RS 232 Connecting cables
- Re-chargeable battery charger / Adapter
- Ext Current Coupler
- Software CD
- Carrying case
- Instruction / User Manual

Standard Warranty

One Year

Other models available

Cable Fault Pre-locator TFL 8

Specifications

Operating Mode TDR and ICM

Measuring Range 0 - 16 Km (In 0.5, 1, 2, 4, 8 and 16 km selectable ranges)

Voltage of Trans- 30 V
mitting Pulse

Width of Trans- 40 ns - 3.56 us
mitting Pulse

Voltage 400 VAC (50/60Hz)
Withstand

Output 5 - 80 Ohm
Impedance

Sampling Rate 100 MHZ (10 ns)

VOP Range 90 - 300 m/μs

Number of 50 Memories
Echograms
Memories

Display 320 x 240 dots

Resolution

TDR Mode $\leq \pm 1$ m when detecting range ≤ 4 Km
 $\leq \pm 4$ m when detecting range > 4 Km

ICM Mode

$\leq \pm 4$ m when detecting range ≤ 4 Km
 $\leq \pm 16$ m when detecting range > 4 Km

Charging Input 110 - 265 V AC, 50Hz
Supply Voltage

Charger Output 8.4 V \pm 10% DC
Voltage

Operation Time 5 Hours Approx
of Batteries

Storage Temp. -40 Deg C ~ +60 Deg C

Working Temp. -20 Deg C ~ +55 Deg C

Dimensions 345 (L) x 290 (W) x152 (H) mm

Weight 4.5 Kg Approx

Type of Protection Splash proof and dust protected IP 54

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