

SONEL TDR-410

Cable Fault Locator

IP 54

OVERVIEW

The TDR-410 is a Time-Domain-Reflectometer (TDR) that detects breaks, short circuits, moisture damage, and changes in impedance of cables. The backlit display gives automatic indication of the type of fault and the distance to the fault.

Identify damage and faults of cables and conductors:

- » Power cables
- » Copper telecom cables
- » Coaxial cables
- » Wiring infrastructures

KEY FEATURES:

- » Automatic or manual operation modes
- » Scan automatically or manually trigger
- » Single measurements triggered manually
- » Continuous scanning operation
- » Automatic fault location (AFL)
- » Range and sensitivity can be set manually or automatically
- » Maximum length of cable up to 4000 m / 14000 ft (2.5 miles)
- » "Dead zone" measurement limited to 0.5 m / 1.64 ft
- » Adjustable impedance matching
- » Propagation coefficient adjustment 1% to 99%
- » 2.5" backlit LCD screen
- » Waterproof, IP 54 / NEMA 3 rugged case construction
- » Small size and weight
- » Low power usage – up to 30 hours of operation on 4 AA batteries



Shorted conductor



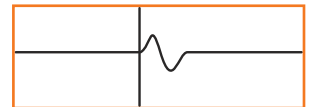
Open conductor



Tap



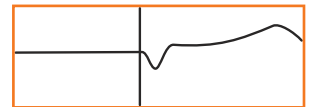
Splice



Frayed cable



Bridge tap



Water ingress



Wet splice / water



Splitter



Split / resplit



SPECIFICATIONS

Ranges in Feet	20, 45, 90, 180, 360, 750, 1500, 3000, 6000, 10000, 14000
Ranges in Meters	7, 15, 30, 60, 120, 250, 500, 1km, 2km, 3km, 4km
Range Selection	Manual or Auto
Accuracy	1% of selected range
Resolution	Approx 1% of range
Minimum cable length	4 m / 14 ft.
Sensitivity	Min 3 pixel return at 4km / 14000 ft. on 0.6 mm diameter, PE, TP
Velocity Factor	Adjustable from 1% to 99%
Output Pulse	5 volts peak to peak into open circuit, width 3 ns to 3 μ s, Automatic with range
Output Impedance	Selectable 25, 50, 75 & 100 ohms
Scan Rate	2 scans per second or scan held, pre-set for each range scale
Tone Generator	810 – 1100Hz
Battery Life	30 hours continuous scanning
Power Supply	4 x 1.5 AA Alkaline cells, low battery indicator
Power Down Time	1 - 5 minutes selectable, or disabled
Backlight Display	128 x 64 pixel, 2.5" LCD
Voltage Protection	250 volts AC
Operating Temp	-10° to 50°C / 14 ° to 122 °F
Storage Temp	-20° +70° C / -4 ° to 158 °F
Dimensions	165 x 90 x 37 mm / 6.5 x 3.5 x 1.5 ins
Weight	350 g / 12 oz
Safety	IEC 61010-1, EN 60950
EMC	BS/EN 61326-1
Case/Enclosure Rating	IP 54 / NEMA 3, Water/Dust Proof

EACH TDR-410 TIME-DOMAIN-REFLECTOMETER IS SUPPLIED WITH:

- » 2 ft / 0.6 m double-wire test lead
- » 2 crocodile clips; red, black
- » Cover M-2
- » 4 x 1.5V AA alkaline batteries

