TDR500/3 Handheld TDR



- **■** Simple operation
- AUTO set up for instant use
- Ultra fast pulse for near end fault identification
- Trace HOLD feature
- IP54 rating offers real life working
- Designed for use on all metallic cable pairs

DESCRIPTION

The TDR500/3 is a hand held, compact time domain reflectometer for locating faults on metallic cables. It has a minimum resolution of 0.1 m and a 5 km maximum range depending on velocity factor selected and cable type.

Four output impedances are available (25, 50, 75, and 100 Ω) and a velocity factor between 0.2 and 0.99 will meet any cable test requirements

The TDR500/3 has a simple selection option which together with a 4 way control switch offers an intuitive operation for the user.

FEATURES AND BENEFITS

An AUTO selection option ensures that the most effective parameters are selected depending on the range required, aiding rapid diagnosis of the TDR trace. A clear operator controlled cursor allows instant measurement of the distance to the fault.

A trace HOLD feature also allows the operator to hold a trace on the screen, something not seen on most other handheld TDRs. Extra high resolution together with whitelight backlight and grey scale tones give the graphical display a vibrancy, aiding the user in identifying key events on the trace.

- Backlit graphics monochrome LCD (256 x 128)
- Adjustable display contrast
- Resolution to 0.1 m
- For use on Telecom TNV-3 circuit, or 150V CAT IV power circuits
- Power blocking filter not required
- Environmental protection to IP54
- 2ns pulse for near end fault location
- AUTO option selecting gain and pulse for each range
- Display distance in metres or feet
- Uses five AA (LR6) primary cells

SPECIFICATIONS

Note **Except where otherwise stated,**

this specification applies at an ambient temperature of 20 °C

10 m, 25 m, 100 m, 250 m, 1000 m, Range

2500 m, 5000 m

(30 ft, 75 ft, 300 ft, 750 ft, 3000 ft,

7500 ft, 15000 ft)

Accuracy ±1% of range ± pixel at 0.67 VF

> [Note - The measurement accuracy is for the indicated cursor position only and is conditional on the velocity factor being

correct.]

Resolution 1% of range

Input protection This instrument complies with IEC61010-

> 1 for connection to live systems up to 150 V CAT IV when used with the optional fused test lead set.

Output pulse 5 volts peak to peak into open circuit.

Pulse widths determined by range and

cable.

Gain Set for each range with three user

selectable steps (in manual operating

Velocity factor Variable from 0.2 to 0.99 in steps of 0.01

TX null Automatic

Power down Automatic after 5 minutes with no key

press

Backlight Stays on for 1 minute with no key press **Battery** Five LR6 (AA) type batteries, Manganese

alkali or nickel metal-hydride cells

Battery life Up to 14 hours (typical)

IP rating The instrument is designed for use

indoors or outdoors and is rated to IP54

Dimensions 230 mm x 115 mm x 48 mm (LBD)

Weight 0.6 kg Case ABS

Connectors Two 4 mm-safety terminals

(19 mm spaced TDR500/3): 1 pair 2 **Test lead**

meters long consisting of 2 x 4 mm shrouded connector to miniature

crocodile clips

Display 256 x 128 pixel Graphics LCD

ENVIRONMENTAL

Operating temperature range and humidity

-15 °C to +50 °C (5 °F to 122 °F)

range and humidity

Storage temperature -20 °C to 70 °C (-4 °F to 158 °F

Safety When using the optional fused test

lead set this instrument complies with IEC61010-1 for connection to live systems with less than 300 V between the terminals and up to 150 V CAT IV to

EMC Complies with Electromagnetic

> Compatibility Specifications (Light industrial) BS EN 61326-1, with a minimum performance of 'B' for all

immunity tests

ORDERING INFORMATION	
Description	Order Code
Time Domain Reflectometer	1002-227
Included accessories	
Hard case	5410-420
Miniature clip test lead set (1 pair)	6231-652
Rubber boot with stand	6231-802
User guide CD	2002-178
Optional accessories	
Split conductor Fused test lead set (1 pair)	1002-015
Pouch - test and carry case	2001-322
Retractable sheath fused test lead (1 pair)	1006-511

