# 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  $\Omega$ ) 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

