TDR1000/3
Handheld TDR



- **Simple operation**
- **AUTO set up for instant use**
- **Ultra fast pulse for near end fault identification**
- **Trace HOLD feature with live trace overlay to allow comparison between cables**
- **IP54 rating offers real life working**
- **Designed for use on all metallic cable pairs**

DESCRIPTION

The TDR1000/3 is a hand held, compact Time Domain Reflectometer for locating faults on metallic cables. It has a minimum resolution of 0.1 m/0.3 ft and a 5 km/15 kft 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 TDR1000 has a simple selection option which together with a 4 way control switch offers an intuitive operation for the user.

FEATURES

An AUTO selection option ensures that the most effective parameters are selected depending on the range required, aiding rapid diagnosis of the TDR trace. Dual cursors allow complete flexibility, giving the operator full control and instant indication of distance between two points.

A trace HOLD feature also allows comparison between conditions, something not seen on most other handheld TDRs, and a live trace overlay feature adds the ability to compare two traces in real time. Extra high resolution together with white-light 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 150 V CAT IV power circuits
- Power blocking filter not required
- Environmental protection to IP54
- Auto selected output impedance (between 25, 50, 75 and 100 Ω)
- 2 ns 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

Except where otherwise stated, this specification applies at an ambient temperature of 20 °C.

General

Ranges 10 m, 25 m, 100 m, 250 m, 1000 m, 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

Refresh rate: Trace updates 3 times per second

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 mode)

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

Batteries: Five LR6 (AA) type batteries, Manganese alkali or nickel metal-hydride cells

Battery life: Up to 14 hours (typical)

Mechanical: The instrument is designed for use indoors or outdoors and is rated to IP54.

Case dimensions: 230 mm (9 in) x 115 mm (4.5 inches) x 48 mm (2 inches)

Instrument weight: 0.6 kg (1.32 lbs)

Case material: ABS

Connectors: Two 4 mm-safety terminals

Test leads (TDR1000/3): 2 metres long consisting of 2 x 4 mm shrouded connector to miniature crocodile clips

Display: 256 x 128 pixel Graphics LCD

Environmental
Operating temperature -15 °C to +50 °C (5 °F to 122 °F)

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 earth

EMC: BSEN61326-1 Emissions Class A; Immunity Table 2: Industrial

ORDERING INFORMATION

Item (Qty)	Cat. No.
Included accessories	
Time Domain Reflectometer	TDR1000/3
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Hard carry case	5410-420
Miniature clip test lead set	6231-652
User guide CD	2002-178
Optional accessories	
Fused test lead set	1002-015

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