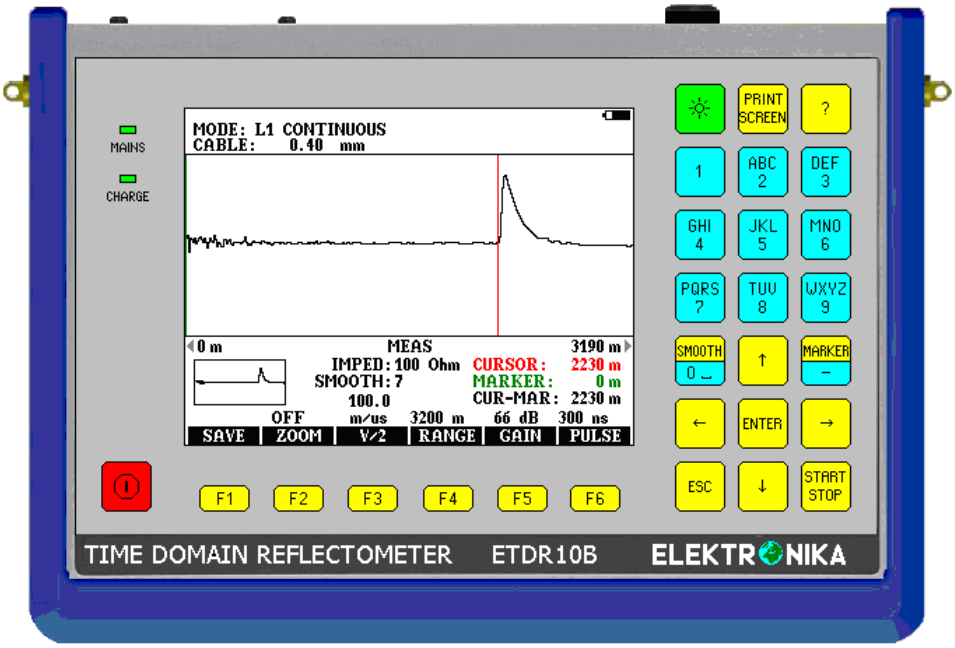
WHERE IS THE FAULT?

ETDR 10B GIVES THE ANSWER!



APPLICATIONS

The ETDR 10B has been designed for quick and accurate fault location and qualification of balanced energy and unloaded telecom cables applying impulse reflection technique. The large color LCD display provides crystal clear wave forms.

The various measuring modes provide accurate location of discontinuities and errors like open circuit, short circuit, loose contact, wet section etc.

Loop Pulsing Device (ELP 400) is available to make the TDR measurements easier when the test object is a branched network.

Blocking Filter (EBF 20) is available to protect inputs when living low voltage energy cables are tested.

ETDR 10B employs optimized pulsing and sampling methods, supported with advanced filtering and signal processing techniques, to reach the maximum range and clean waveform for easier fault interpretation.

If you select the cable type from the cable library and set the measuring range covering the length of the cable to be tested, then: V/2, gain, pulse width, and the distance dependent compensation of cable attenuation are automatically set as default.

3 to 10 ns pulse widths for close-in resolution. Faults as near as 0.5 m from the pedestal can be easily located.

Help facility with sample traces and useful topic related information.

FEATURES

- TDR for balanced cables
- Automatic detection of the fault
- Small size, suitable for using in the field at different weather conditions
- Widest range in a hand-held cable fault locator up to 16 km
- Language selectable: English, Russian, German, Italian, French
- Dual balanced input enables:
  - Examination of live lines
  - Comparison of two live lines
  - Difference between two live lines
  - Location of crosstalk points
  - Location of intermittent faults
  - Comparison of live line to memory
  - Difference between live line and memory
- Memory for storage waveforms and settings
- Clear waveform display of full trace for accurate diagnosis. 5’ color display with backlight
- Zoom for detailed examination
- Cable library for standard and user defined cable types
- Results can be transferred to PC via USB cable, via WLAN or can be stored on memory stick.
- Internal rechargeable lithium-ion battery pack

ELEKTRONIKA Telecommunications Test Equipment
HUNGARY-1135 BUDAPEST, Reitter Ferenc u. 52-54.
H-1400 BUDAPEST, P.O.Box 6

EN ISO 9001:2008
EN ISO 14001:2004

Phone: (36-1)340-2136; E-mail: sales@elektronika.hu
Fax: (36-1)340-2139; http://www.elektronika.hu

SPECIFICATIONS

Measuring ranges

1. ..... 16 m
2 ..... 32 m
3. ..... 64 m
4. ..... 160 m
5. ..... 320 m
6. ..... 640 m
7. ..... 1600 m
8. ..... 3200 m
9. ..... 6400 m
10. ..... 16000 m

(Maximum range depends on cable features)

Evaluation of results

with cursor and marker in meters

Zoom

Selectable ..... OFF, 2.5, 5

Resolution

with zoom ..... 0.06% of range
without zoom ..... 0.3% of range

Accuracy

Sampling ..... 0.01 m
Fault location ..... 0.2% of range

Propagation velocity

V/2 ..... 45 to 150 m/µs
VOP ..... 30 to 99 %

Measuring modes

L1 AUTOMATIC	With auto configuration
L1 CONTINUOUS	Repeated measurements with averaging
L1 LONG TIME	Location of loose contacts and intermittent faults
L1 SINGLE	One single measurement
L2 CONTINUOUS	Repeated measurements with averaging
L1 & L2 L1 - L2	Comparison of two pairs
XTALK AUTOMATIC XTALK CONTINUOUS	Transmit on L1 Receive on L2
L1 & MEMORY L1 - MEMORY	Comparison with memory

Pulse characteristics

Amplitude: ..... max 10V peak to peak to open circuit
Widths: 3, 6, 10, 30, 60, 100, 300, 600 ns 1, 3, 6 µs
The provided pulse width changed with range.
The pulse amplitude changed with gain and width

Gain control

Range ..... 0 to 90 dB
Steps ..... 6 dB/step

Line connection

Impedances: ..... 100,135, 150 Ohm balanced
Input protection ..... 230V RMS 50 Hz 500 V DC
Balance control ..... up to 250 Ohm

Memory locations

For waveforms 50
For setups 10
For user stored PVF values 10
For standard cable parameters 30

General Specifications

Power supply
Internal rechargeable lithium-ion battery pack
Operation time ..... min. 10 hours
Charging (without taking the battery pack out)
From 230 V mains ..... with mains adapter
From 12 V car battery .... with car adapter (option)
Charging time ..... approx. 3 hours
Display ..... 5' color TFT LCD
Connectors
For mains or 12V car adapter 2.1/5.5 mm socket
L1 and L2 line connectors. 4 mm banana sockets
USB-MIC/B .....to connect PC or memory stick
Ambient temperature ranges
Normal operation .....-10 to +50°C
Rel. humidity ..... 30% to 75% (<25g/m3)
Limits of operation.....-10 to +50°C
Rel. humidity ..... 5% to 95% (<29g/m3)
Storage and transport .....-20 to +70°C
Rel. humidity ..... 55% at +45°C (<35g/m3)
Protection .....IP 54
Shockproof..... EN 60068-2-27 Shock
Dimensions..... 224 x 160 x 44 mm
Weight..... ~1,2 kg

* without condensation

ORDERING INFORMATION

TIME DOMAIN REFLECTOMETER
ETDR 10B 474-000-000

Including:
Operating Manual
Short form operation instructions
Calibration Certificate
Measuring Cable (red)
Measuring Cable (black)
USB stick & adapter
USB cable for PC connection
Mains adapter
Battery pack (built-in)
Carrying case

Options:
ECA 10 Coaxial Adapter..... 378-000-000
Car Lighter power adapter EAA 20... 462-000-000
Loop Pulsing Device ELP400 475-000-000
Blocking Filter EBF 20 476-000-000
Spare battery 464-210-000

ELEKTRONIKA reserves the right to change specifications without prior notice ! 05.09.2021

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