

REFLECTOMETER R-TDR ICE

Portable pre-location fault equipment.

Highlights

- Easy operation.
- ICE input.
- Real-time cable comparison with its two TDR measurement inputs.
- High resolution for short and long distance ranges.
- Rugged and waterproof case for field work.

Description

R-TDR ICE is a compact and powerful reflectometer specially designed for locating faults in low and medium voltage (LV and MV) cables. Its multiple configuration options and functions allow for precise measurement results, even at short distances (< 5 m) and on live low voltage cables. A clearly structured LCD screen continuously displays all parameters, preventing operator confusion.

The R-TDR ICE reflectometer uses the Time Domain Reflection method by sending electrical pulses of a few volts and lasting from nanoseconds to microseconds into the conductor being tested. Each change in impedance causes a partial reflection of the pulse back towards the device. The reflectometer calculates the distance based on the time elapsed between the pulse transmission and its reflection, then displays it on the screen as a graph. This way, cable ends, short circuits, interruptions, splices, or parasitic couplings can be identified.

In ICE mode (Impulse Current Method), the device allows for pre-location of high resistance faults and intermittent flash faults. By using a current impulse generator from the GIC family, a discharge is induced on the fault present in the conductor, resulting in multiple reflections that repeat as long as the voltage is sufficient to keep arcing the fault. These reflections are captured by the inductive coupler and displayed on the screen. The elapsed time between reflections is proportional to the distance between the generator and the fault.

Technical Characteristics

- Adjustable balance.
- Adjustable attenuation.
- Self-adjusting output pulse based on range.
- Simultaneous display of reflectogram comparisons on screen.
- Large LCD screen with backlighting.
- Two inputs for comparing measurements.
- Individual measurement, continuous measurement, and propagation speed calculation.
- Measurement inputs that support up to 600 V for fault localization on live cables.
- Programmable timed auto-shutdown.
- More than 10 hours of continuous use.
- Rugged and waterproof case for field work.



MADE IN ARGENTINA

TECHNICAL SPECIFICATIONS

R-TDR

Max range	20.000mts @ VP/2 80 m/mseg.
Outputs	2 (protected up to 600 Vca)
Measurement	Direct on screen, 2 cursors
Pulse widths	75 nseg, 150 nseg, 500 nseg, 2 nseg, 5 µseg y 10 µseg
Resolution	0,50 mts @ vp/2 - 80m/µseg
Display	LCD 320 x 240, backlight
Pulse amplitude	10 Vp. over 50 ohms.

ICE

Resolution	1 mts@vp2=80mts/ µseg
Sampling frequency	80 Mhz
Methods	ICE
VP/2	Adjustable between 50 m/µseg-150m/µseg
Zoom	Yes
Connectors	BNC

R-TDR/ICE

Power supply	Internal battery 12V/2,3 Ah 100-240Vca ± 10% -50/60 Hz
Operating capacity	> 10 hours
Auto-power-off	Programmable: 5, 10 o 15 min.
Dimensions mm. (height, width, depth)	130 x 280 x 250
Weight (approx.)	3,8 kg.
Operating temperature	-10°C / +50°C

Scope of Supply

- Battery charger 100-240 V AC
- Two sets of measurement cables
- BNC-BNC cable
- Operation manual
- Carrying case