

Impulse Reflectometer

TDR-400 Impulse Reflectometer



The TDR-400 is a handy, light impulse reflectometer, processor controlled, with LCD display for check and locate faults in telecommunication and power cables.

Measuring principle:

The measuring pulse fed into the cable will be reflected by inhomogeneity of the cable impedance (cable faults) and shown on the display. The distance and the kind of the fault can be determined out of the shape and the time setting of the reflection (Practical experience can be obtained by test measurements). If the cable is terminated with a resistance equal to the impedance of the cable, no reflexion occurs when the cable is faultless. In the case of breaks, contact faults in sleeves, short circuits or taps/splitter in the sector to be tested, the distance to the cable beginning can be determined by the pulse echo. If wide pulses are used for the measurement, the echoes are stronger, but faultless taps/splitter cause then strong echoes.

Propagation factor

The Propagation factor (nvp-value) declares the velocity of electrical signals in the cable in relation to the speed of light. The propagation factor of the cable under test must always be preset before the length measurement. If the propagation factor is unknown, an approximate value is set and the fault is determined from both ends of the cable.

FEATURES	TDR-400
Measuring range	0 - 2000 m
Resolution	0.25 m, 0.5 m, 1 m, 4 m
Accuracy	0.2 % of the measuring range
Propagation factor	0.25 to 0.999
Storage places	10 for propagation factor
Dynamics	44 dB
Impedance	75 Ohm
Output	F-socket
Output pulse	4 V/5 ns or 100 ns
Operating	with 3 keys
Display	LCD display, 120 x 32 pixel, illuminated
Power supply	NiMH accumulator 6 V/ 700 mAh (5 x R3),
Power consumption	80 mA