Reflectometer

TDR-420

index: WMGBTDR420

IP67



Diagnose faults with the TDR-420 reflectometer

Product features

- fault location in power and telecommunication cables
- two independent cursors to indicate two fault locations and the distance between them
- fault location in coaxial cables
- fault location in infrastructure cables
- detection of breaks, short-circuits, damage caused by moisture and other changes in cable impedance
- graphic presentation of cable faults with an indication of the distance to the fault on the display

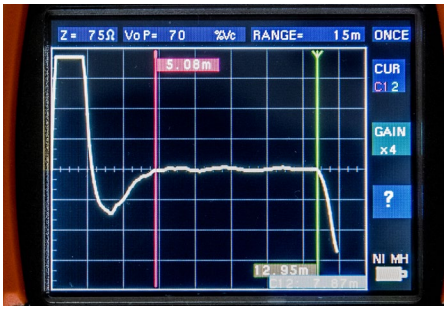


Application

TDR-420 time-domain reflectometer is designed to detect where faults in metal wires are. This product is designed for:
• electrical wholesalers and cable dealers,
• electrical installation companies,
• maintenance personnel at manufacturing plants,
• building personnel.
This device meets the expectations of all those who have to accurately locate a fault and wire end in either power or telecommunications cables.

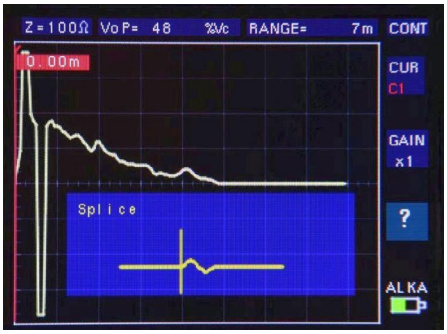
Device capabilities

The SONEL reflectometer is distinguished for its long operating range of up to 6,000 m, very low margin of error in measurement (in the order of 1%) and the ability to adjust both the velocity of propagation and the impedance of the cable which is under investigation. By using two cursors there should be no problem with determining both the distance to two faults and the distance between them.



Easy readout

The TDR-420 reflectometer is equipped with a readable colour display that, due to its 320 x 240 pixel resolution, allows the fault location to be indicated even more accurately.



Integrated Help

In the TDR-420 device a handy help function has been added to facilitate the interpretation of the result obtained during measurement. Thanks to this function, a user can quickly determine the type of anomaly that is present in the cable segment which is being examined, by comparing the displayed reflectogram with typical fault shapes.



Durable and practical casing

In response to the customers needs the TDR-420 has been designed to operate in difficult environmental conditions. A unique casing with the IP67 ingress protection rating ensures that the device is both waterproof and dustproof. An additional advantage is the elastomer coating of the casing that prevents the device from slipping out of the hands and provides protection if it should be accidently dropped.

Technical specification

measuring ranges	20, 45, 90, 180, 360, 750, 1500, 3000, 6000, 10000, 20000 [ft] 7 m, 15 m, 30 m, 60 m, 120 m, 250 m, 500 m, 1 km, 2 km, 3 km, 6 km
accuracy	1% of selected range
resolution	approx. 1% of range
minimum cable length	4 m
velocity of propagation	within 10…99% or 15…148.5 m/µs
output impulse	5 V_{p-p} for an open circuit
output impedance	25, 50, 75, 100, 125 and 200 Ω
impulse width	3 ns…3 µs (depending on the range)
scanning type	up to 3 scans/s or a single scan (ONCE mode)
generated acoustic signal	810...1100 Hz
operating time on a full battery	up to 8 hours of continuous scanning
power supply	4 x alkaline batteries 1.5 V AA type or 4 x NiMH AA rechargeable batteries
auto-off function	1, 5, 10, 15 minutes or deactivated
display	colour 3.5” LCD TFT, 320 x 240 pixels
overvoltage protection	400 V DC / 250 V AC
operating temperature	-20...+70°C
storage temperature	-30...+80°C
dimensions	220 x 98 x 58 mm
weight	487 g
electromagnetic compatibility standards (EMC)	EN 61326-1
ingress protection	IP67

Standard accessories



double-wire test lead 0.6 m

WAPRZ0X6DZBB



crocodile clip red 1 kV 20 A

WAKRORE20K02



crocodile clip black 1 kV 20 A

WAKROBL20K01



4x alkaline battery 1.5 V AA



M1 hanging straps

WAPOZSZE4



M-6 carrying case

WAFUTM6

