

ISOPALM 200

Cable fault locator

The fault locator ISOPALM 200 is designed to identify and locate with high precision any faults on telecom cables: insulation faults (bare, blasted, buried wires) and break on wires (partial or total break).

- Display of fault location in meters
- Suitable for Pupin coils
- Homogeneous and heterogeneous cables

Description

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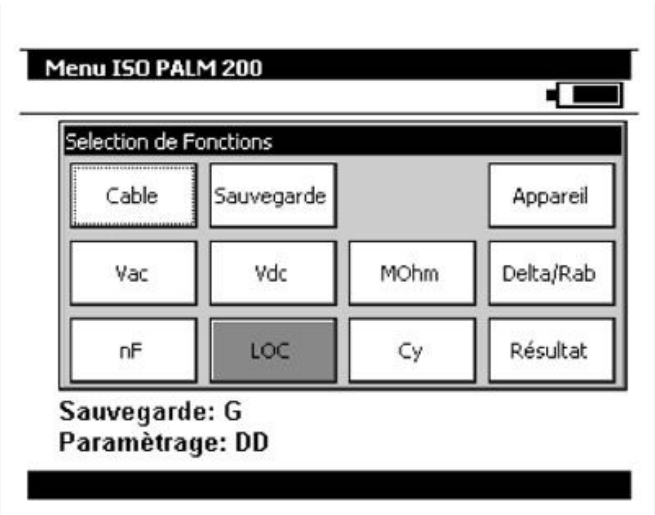
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- Suitable for Pupin coils
- Homogeneous and heterogeneous cables

ISOPALM 200 also has the ability to make loop resistance measurements, insulation resistance measurements and resistance ratio measurements ΔR. It uses standard impedance / impedance ratio measurement methods, and brings, due to innovative technology, key advantages to the user compared to manual bridges for example.

Designed for onsite use, the instrument features a rugged protective sheath, uses latest generation Li-Ion batteries with short recharging time, and has a large graphical display showing all information about the test performed.

Easy to use, a central interface on the instrument gives access to the different test methods. Tests are stored in the instrument database and results are recorded and linked to the test.

With a great accuracy, ISOPALM 200 calculates the fault location regardless of the cable type: the position of the fault is identified whether the cables are homogeneous or not and the instrument displays the distance to the fault in meter and resistance to the fault in Ω.

	
Example of test	Access menu to all functions

Test on heterogeneous cables

The ISOPALM 200 can set up to 9 sections when calculating distance to a fault on a cable made of wires of different diameters, overhead or underground wires.

When wires of a same pair are of different types, ISOPALM 200 can use a third cable to calculate the distance to a fault.

Display of fault position in meters

After programming in the instrument of the parameters of every section of the cable under test (length, linear resistance, eventually temperature and pupins), the ISOPALM 200 displays the distance to the fault in meters with a resolution of 0.1 to 1 m according to the cable length. The distance is calculated either from the cable length or from the loop resistance. For more accuracy in the location of the fault, both results can be compared.

Specifications

Measurement of AC / DC voltage

Range	Resolution	Accuracy / 1 year
-300 to 300 V AC / DC	Up to 99.9 V: 0.1 V From 100 to 300 V: 1 V	±1% RDG + 0.5 V

Resistance measurement

Range	Resolution	Accuracy / 1 year
0 to 10 KΩ	Up to 1000 Ω: 0.1 Ω Beyond 1000 Ω: 1 Ω	±0.5% RDG + 0,2 Ω

Isolation measurement at test voltage 50 to 100 V

Range	Resolution	Accuracy / 1 year
0 to 10 KΩ	Up to 1000 Ω: 0.1 Ω Beyond 1000 Ω: 1 Ω	±0.5% RDG + 0.2 Ω

Isolation measurement at test voltage 150 to 300 V

Range	Resolution	Accuracy / 1 year
0 to 5000 MΩ	From 0 to 999 kΩ: 2 digits after coma From 1 MΩ to 9.99 MΩ: 2 digits after coma From 10 MΩ to 99.9 MΩ: 1 digit after coma From 100 MΩ to 5 GΩ: 0 digit after coma	From 1 MΩ to 999 MΩ: ±10% RDG Beyond: ±10% RDG + 30 kΩ

Isolation measurement at test voltage 350 to 500 V

Range	Resolution	Accuracy / 1 year
0 to 10000 MΩ	From 0 to 999 kΩ: 2 digits after coma From 1 MΩ to 9.99 MΩ: 2 digits after coma From 10 MΩ to 99.9 MΩ: 1 digit after coma From 100 MΩ to 10 GΩ: 0 digit after coma	From 1 MΩ to 999 MΩ: ±10% RDG Beyond: ±10% RDG + 30 kΩ

Capacitance measurement

Range	Resolution	Accuracy / 1 year
0 nF to 2 µF	From 0 nF to 1000 nF: 1 nF From 1000 nF to 2000 nF: 2 nF	±1% RDG

Fault location

Type	Accuracy / 1 year
Fault between 2 wires on the same pair Fault between 2 wires on different pairs Fault between 1 wire and the ground	±1% RDG

Fault location methods integrated into the instrument

Method	Principle
Sauty	Location of broken wire: With measurement of loop resistance, if Rab > 10 000 Ω, the wire is broken Test on homogeneous cables
Murray	Location of insulation fault: If Ihealthy > 1000, Iunhealthy (ou Ib > 1000 Ia) Test on homogeneous and heterogeneous cables
Fabe / Küpfmüller	Location of insulation fault: If Ihealthy/ Iunhealthy > 2 x Rhealthy/Runhealthy, Ih+Iu > 1000 Rab, Ihealthy and Iunhealthy Test on homogeneous and heterogeneous cables

General specifications

Size	210 x 110 x 50 mm
Weight	900 g
Display	240 x 320 pixel liquid crystal graphical display with backlite and contrast control
Power supply	230 V ±10 %, 50/60 Hz
Battery	Type: Li/Ion Charging time: 4 h Lifetime: 10 h

Environmental specifications

Reference range	23°C ±5°C (RH: 45 to 75 % w/o condensing)
Operating reference range	-10 to 50°C (RH: 20 to 80 % w/o condensing)
Limit operating range	-15°C to +55°C (RH: 10 to 80 % w/o condensing) (70% at 55°C)

Storage temperature limits	-30°C to +60°C
Maximum height	0 to 2000 m
IP protection	IP54 according to EN60529

Safety specifications

Class	In accordance with EN 61010-1 Category II, pollution 2
Chocks and vibrations	EN 61010-1
EMC conformity	

Models and accessories

Instrument:

ISOPALM 200 Cable fault locator

Delivered in standard with:

- Remote looping device
- Set of testing leads and crocodile clips
- User manual
- Transport case, shoulder strap and stand

Packing information:

Size	210 x 110 x 50 mm
Weight	900 g