

TL-5

Earth resistance meter



Description

The **TL-5** earth resistance meter is a digital instrument controlled by a microprocessor. It has been designed to take earth resistance and resistivity measurements, with the use of the Wenner method.

The **TL-5** unit is fully automatic and easy to use. Before taking a reading, the unit controls the installation's conditions to check that they are within the adequate limits, notifying the user of any abnormal situation (very high interference voltages, very low intensity of the test current, etc.).

The **TL-5** can be used to select two frequencies to generate the test current (270 Hz or 1470 Hz), in order to optimise the earthing test.

The instrument has 4 ranges to measure resistances, covering the range that goes from 0.01 Ω to 20 k Ω .

This instrument has been specially designed to monitor earthing systems in substations, industries, energy distribution grids, etc. in accordance with IEC 61557-5. It is also very useful to measure the specific earth resistivity, with the purpose of optimising the earthing system projects.

Features

Power supply circuit	
Internal rechargeable battery	12 V - 2.3 A-h
Battery charger	95 - 240 Vac 50 ... 60 Hz
Short-circuit current	< 3.5 mA
Measurement circuit	
Resistance	0.01 Ω - 20 k Ω
Resistivity	0.01 Ω m - 50 k Ω m
Voltage	0 - 60 Vac
Accuracy	
Resistance and resistivity	± 2 % of the value measured ± 2 digits
Voltage	± 2 % of the value measured ± 2 digits
Reading resolution	
Resistance	0.01 Ω
Resistivity	0.01 Ω m
Voltage	0.1 V
Communications	
Series output	USB
Printer	PR-01 (optional)
Ambient conditions	
Operating temperature	-10 ... +50 $^{\circ}$ C
Storage temperature	-25 ... +65 $^{\circ}$ C
Relative humidity	95 % (non-condensing)
Maximum height	3 000 m
Build features	
Dimensions	274 x 250 x 124 mm
Weight	3.6 kg
Degree of protection	IP 54 (with the cover closed)
Standards	
IEC 61010-1/1990, IEC 61010-1/1992 appendix 2, IEC 61326-1, IEC 61000-4-3, IEC 61000-4-2	

References

Description	Type	Code
Earth resistance meter - 4 ways	TL-5	P60621