



## **Technical description**

Heavy-duty earthing and soil resistivity meter

The MRU-120HD earth resistance and soil resistivity meter is a robust and functional device characterised by particular resistance to difficult working conditions. It is not afraid of dust or mud and performs excellently even in areas where there is an increased risk of splashing.

With the use of the Sonel MRU-120HD meter it is possible to perform earth resistance measurements using the 3-pole and 4-wire method. The instrument also allows measurements to be made using additional clamps (multiple earthing - without the need to disconnect the monitoring connections) and measurements using the two-clamp method. In some cases, the measurement can be done without the use of auxiliary probes driven into the ground. Sonel MRU-120HD is a tool designed especially for earthing measurements in the power industry. Measuring range (measurements in accordance with EN 61557) from 0.30 O.

Other practical functions of the device are the ability to measure the resistivity of the ground and the continuity of protective and equalising connections.



3-pole and 4-wire method measurement of earthing systems using auxiliary probes
3-pole method with clamp measurement of earthing systems with multiple earth electrodes
Two-clamp method measurement of earthing system when the auxiliary probes cannot be used
Earth resistivity Wenner method

Resistance of earth and compensatory conductors measured using current =200 mA with auto-zero function meets the requirements of EN 61557-4

#### Additional features

Outstanding resistance to harsh environmental conditions — the suitcase housing protects against the ingress of dust and water and protects against the effects of falls

Measurement of resistance of auxiliary electrodes RS and RH

Measurement of interference voltage

Measurement in the presence of interference voltage generated by power networks with frequency of 50 Hz or 60 Hz

Selection of maximum measuring voltage (25 V and 50 V)

Automatic calculation of soil resistivity in ohm-meters (Om) and ohm-feet (Oft)

Memory of 990 measurement results (10 banks of 99 cells each)

Calibration of clamp used Real time clock (RTC)

Data transmission to the

Data transmission to the computer

Battery indication

### Application

MRU-120HD was created for the most difficult working conditions. It generates a measuring current exceeding 200 mA, which provides effective measurements of grounding of energy objects such as transformer stations and power stations.

Thanks to the methods using clamps, it is not necessary to disconnect the control connectors, which is sometimes a very tedious operation. This plays a special role when performing works on objects exposed to weather conditions, where the connecting elements are sometimes corroded or tarnished.

The graphical user interface provides clear readings and explicit messages. This translates into quick, trouble-free service.

#### Transport and security

It doesnt matter if you take measurements while wading in the mud or if you act in the sand amongst clouds of dust. The MRU-120HD meter is ready and will not disappoint. IP67 protection degree when the cover is closed ensures dust-tightness and prevents water ingress even when the housing is immersed briefly! When measuring, the tightness is still high (IP54), providing protection against dust and water splashes from any direction.

#### Memory and results

The results can be saved to the devices memory. It is divided into 10 banks of 99 cells, each corresponding to one measurement. These results can be easily transferred to the Sonel Reader software for archiving or subsequent analysis and research.



# Advantages:

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According to:	