



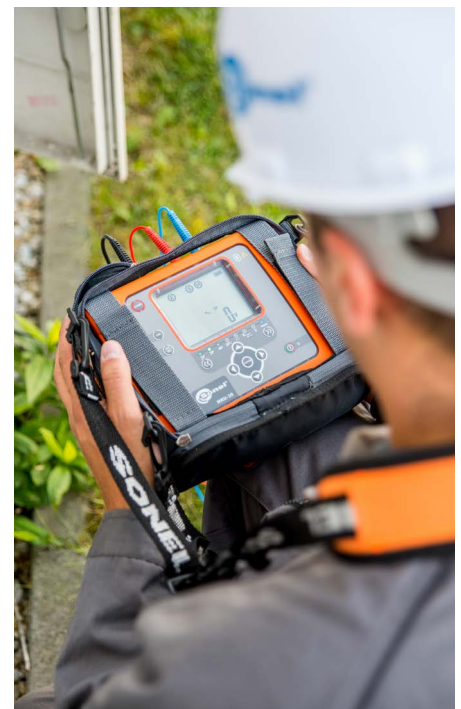
## Universal earth tester

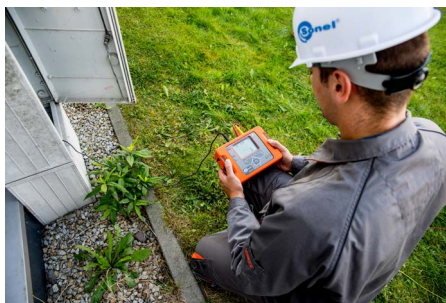
### Measurement methods

- With auxiliary electrodes (3-lead and 4-lead)
- With auxiliary electrodes and clamp (for measurement of multiple earthing systems)
- With two clamps (for measuring multiple earthing without underground edge connections)
- Soil resistivity (Wenner method)
- Continuity of protective conductors and equipotential bonding - with 200 mA current - meeting the requirements of EN 61557-4

### Features

- Measurement of auxiliary electrode resistances  $R_S$  and  $R_H$
- Measurement of interference voltage
- Measurement in the presence of interference voltages in networks with frequencies of 50 Hz and 60 Hz
- Selection of maximum measurement voltage (25 V and 50 V)
- In ground resistivity measurements, distances between electrodes can be input in meters (m) or feet (ft)





## Application

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The MRU-30 earth resistance meter is designed to measure single and multiple earthings using auxiliary electrodes and/or clamps. Moreover it is possible to measure ground resistivity (Wenner method) and verify the continuity of equipotential bondings and protective conductors.



## Capabilities

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The meter provides the ability to make grounding tests with all kinds of the technical method. High immunity to interference allows it to be used even in difficult conditions in circuits with interfering currents. Simple and intuitive operation makes the measurements easier and faster. The meter has internal memory. The measurement results can be transmitted to a computer for data processing and preparation of documentation from the grounding tests.

## Durable and practical casing

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Ergonomic, small and practical housing allows comfortable and easy operation. The meter is resistant to all weather conditions. IP65 ingress protection guarantees dustproof and resistance to water jets on each side. The battery is permanently built-in and can be charged from a PowerBank or car cigarette lighter.



# Technical specification

| Measurement functions  | Measurement range                     | Display range     | Resolution  | Accuracy<br>±(% m.v. + digits)   |
|--|---------------------------------------|-------------------|-------------|--|
| <b>Interference voltage</b>  | 0 V...100 V                           | 0 V...100 V       | 1 V         | ±(5% m.v. + 2 digits)  |
| <b>Connection and equipotential bonding resistance</b>   | 0.13 Ω...1999 Ω<br>acc. to EN 61557-4 | 0.00 Ω...1999 Ω   | from 0.01 Ω | ±(2% m.v. + 3 digits)  |
| <b>Earth resistance</b>  |                                       |                   |             |  |
| 2-wire method  | 0.00 Ω...9999 Ω                       | 0.00 Ω...9999 Ω   | from 0.01 Ω | from ±(3% m.v. + 3 digits)   |
| 3- and 4-wire method   | 0.53 Ω...9999 Ω<br>acc. to EN 61557-5 | 0.00 Ω...9999 Ω   | from 0.01 Ω | from ±(3% m.v. + 3 digits)   |
| 3-wire + clamp method  | 0.00 Ω...9999 Ω                       | 0.00 Ω...9999 Ω   | from 0.01 Ω | from ±(3% m.v. + 3 digits)   |
| two-clamp method   | 0.00 Ω...99.9 Ω                       | 0.00 Ω...99.9 Ω   | from 0.01 Ω | from ±(10% m.v. + 8 digits)  |
| auxiliary electrodes resistance  | 0 Ω...19.9 kΩ                         | 0 Ω...19.9 kΩ     | from 1 Ω    | ±(5% (R <sub>E</sub> +R <sub>H</sub> +R <sub>S</sub> ) + 8 digits)                       |
| <b>Earth resistivity</b>   | 0.00 Ωm...999 kΩm                     | 0.00 Ωm...999 kΩm | from 0.1 Ωm | Depends on the accuracy of the R <sub>E</sub> 4p measurement, but not less than ±1 digit |
| <b>Leakage current</b>   | 0.0 mA...5.00 A                       | 0.0 mA...5.00 A   | from 0.1 mA | from ±(5% m.v. + 5 digits)   |
| <b>Safety and work conditions</b>  |                                       |                   |             |  |
| <b>Measuring category according to EN 61010</b>  |                                       |                   |             | III 300 V  |
| <b>Ingress protection</b>  |                                       |                   |             | IP65   |
| <b>Type of insulation according to EN 61010-1 and IEC 61557</b>  |                                       |                   |             | double   |
| <b>Dimensions</b>  |                                       |                   |             | 200 x 150 x 73 mm  |
| <b>Weight</b>  |                                       |                   |             | ca. 1.14 kg  |
| <b>Operating temperature</b>   |                                       |                   |             | -10...+50°C  |
| <b>Storage temperature</b>   |                                       |                   |             | -20...+60°C  |
| <b>Humidity</b>  |                                       |                   |             | 20...90%   |
| <b>Nominal temperature</b>   |                                       |                   |             | 23 ± 2°C   |
| <b>Reference humidity</b>  |                                       |                   |             | 40%...60%  |
| <b>Altitude a.s.l.</b>   |                                       |                   |             | ≤2000 m  |
| <b>Memory and communication</b>  |                                       |                   |             |  |
| <b>Memory of measurement results</b>   |                                       |                   |             | 990 results  |
| <b>Data transmission</b>   |                                       |                   |             | USB 2.0  |
| <b>Other information</b>   |                                       |                   |             |  |
| <b>Quality standard – development, design and production</b>   |                                       |                   |             | ISO 9001   |
| <b>The product meets the EMC (emission for industrial environment) requirements according to standards</b> |                                       |                   |             | EN 61326-1<br>EN 61326-2-2   |

## Standard accessories



**Test lead with banana plugs; 1 kV; 1.2 m; red**

WAPRX1X2REBB



**Test probe with banana socket; 1 kV; red**

WASONREOGB1



**2x earth contact pin probe (30 cm)**

WASONG30



**Meter power adapter (type Z7)**

WAZASZ7



**USB cable**

WAPRXUSB



**Earthing measurement test lead with banana plugs on reel; 25 m; red**

WAPRX025REBBSZ



**Black crocodile clip 1 kV 20 A**

WAKROBL20K01



**Clamp terminal with banana plug termination**

WAZACIMA1



**230 V power cord (IEC C7 plug)**

WAPRXLAD230



**Earthing measurement test lead with banana plugs on reel; 50 m; yellow**

WAPRX050YEBBSZ



**Test lead with banana plugs; 1 kV; 2.2 m; black**

WAPRX2X2BLBB



**M-9 carrying case**

WAFUTM9



**L-10 carrying case**

WAFUTL10

## Optional accessories



**Test lead 75 / 100 / 200 m red, for MRU (banana plugs, on a reel)**

WAPRX075REBBSZ  
WAPRX100REBBSZ  
WAPRX200REBBSZ



**Test lead 75 / 100 / 200 m blue, for MRU (banana plugs, on a reel)**

WAPRX075BUBBSZ  
WAPRX100BUBBSZ  
WAPRX200BUBBSZ



**Test lead 75 / 100 / 200 m yellow, for MRU (banana plugs, on a reel)**

WAPRX075YEBBSZ  
WAPRX100YEBBSZ  
WAPRX200YEBBSZ



**Test lead 30 m, red, for MRU (banana plugs, on a reel)**

WAPRX030REBBSZ



**Test lead 15 / 25 m blue, for MRU (on a reel)**

WAPRX015BUBBSZ  
WAPRX025BUBBSZ



**Test wire reel**

WAP0ZSZP1



**Earth contact test probe (rod), 15 cm**

WASONG15



**Earth contact test probe (rod), 26 cm**

WASONG26



**Earth contact test probe (rod), 80 cm**

WASONG80



**Crocodile clip, 1 kV 20 A red/blue/yellow**

WAKRORE20K02  
WAKROBU20K02  
WAKROYE20K02



**Test lead 1.2 m CAT III/1000V CAT IV/600V black/blue/yellow**

WAPRX1X2BLBB  
WAPRX1X2BUBB  
WAPRX1X2YEBB



**Pin probe CAT III/1000V CAT IV/600V black/blue/yellow**

WASONBLOGB1  
WASONBUOGB1  
WASONYEOGB1



**N-1 transmitting clamp (Φ=52 mm)**

WACEGN1BB



**C-3 current clamp (Φ=52 mm)**

WACEGC3OKR



**Battery charging cable for 12 V car sockets**

WAPRXLAD12SAM



**Double-wire test lead 2 m, for N-1 clamps (banana plugs)**

WAPRX002DZBB



**L3 carrying case for 80 cm rods**

WAFUTL3