

# EARTH RESISTANCE METER

## MRU-20


**IEC**
**61557**
**CAT IV**
**300V**
 **IP 54**

### Possible measurements:

- earth resistance measurement with 3-pole method,
- measurement of continuity of equipotential bondings and protective conductors with auto-zero function - with current 200mA,
- resistance measurement using 2-pole method.

### Standard accessories of meter MRU-20:

- Test lead on a reel with banana plugs; 30m; red
- Test lead on a reel with banana plugs; 15m; blue
- Test lead with banana plug 2,2m; black
- Test lead with banana plug; 1,2m; red
- „Crocodile” clip K01; black

**WAPRZ030REBBSZ**  
**WAPRZ015BUBBSZ**  
**WAPRZ2X2BLBB**  
**WAPRZ1X2REBB**  
**WAKROBL20K01**

- Earth contact test probe (rod); 0,30m (2 pcs)
- Carrying case
- Harness for carrying instrument
- R6 batteries
- Operating manual,
- Calibration certificate.

**WASONG30**  
**WAFUTL4**  
**WAPZSZE2**

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### Optional accessories od meter MRU-20:

- Test lead on a reel with banana plugs; 25m; blue
- Test lead on a reel with banana plugs; 50m; yellow.
- Test wire reel
- Earth contact test probe (rod); 0,80m

**WAPRZ025BUBBSZ**  
**WAPRZ050YEBBSZ**  
**WAPZSZP1**  
**WASONG80**

- Carrying case L3
- Cramp

**WAFUTL3**  
**WAZACIMA1**

● **It allows to take:**

- earth resistance measurement using auxiliary probes with 3-pole method,
- resistance measurement using 2-pole method,
- measurement of continuity of equipotential bondings and protective conductors (meeting the requirements of IEC 61557-4) with auto-zero function – with current 200mA.

● **Additionally:**

- AUTO-OFF function after 5 minutes,
- indication of battery state.

**Measurement of earthing resistance**

measurement range to IEC61557-5: **0,50Ω...1,99kΩ for  $U_n=50V$ ;**  
**0,68Ω...1,99kΩ for  $U_n=25V$ ;**

Range	Resolution	Accuracy
0,00...9,99Ω	0,01Ω	±(2% m.v. + 3 digits)
10,0...99,9Ω	0,1Ω	
100...999Ω	1Ω	
1,00k...1,99kΩ	0,01kΩ	

- measurement current: under short circuit >20mA,
- voltage on open terminals: selectable 25V AC or 50V AC,
- frequency of measurement current: 125Hz

**Measurement of resistance of auxiliary electrodes  $R_H$  i  $R_S$**

Range	Resolution	Accuracy
0...999Ω	1Ω	±(5% ( $R_s+R_e+R_n$ ) + 3 digits)
1,00k...9,99kΩ	0,01kΩ	
10,0k...50,0kΩ	0,1kΩ	

**Measurement of interference voltage  $U_N$  (RMS)**

Range	Resolution	Accuracy
0...100V	1V	±(2% m.v. + 3 digits)

**Measurement of continuity of equipotential bondings and protective conductors**

measurement range to IEC61557-4: **0,13Ω...199Ω**

Range	Resolution	Accuracy
0,00...9,99Ω	0,01Ω	±(2% m.v. + 3 digits)
10,0...99,9Ω	0,1Ω	
100...199Ω	1Ω	

- measuring method: technical 2-pole method,
- max. voltage on open terminals: 13V,
- measurement current: under short circuit >200mA,
- auto-zero function for measurement leads

**Electric security:**

- type of insulation double, according to IEC 61010-1 and IEC 61557
- measurement category CAT IV 300V acc. to IEC 61010-1
- protection class acc. to EN 60529 IP54

**Rated operational conditions:**

- operation temperature -10...+55°C
- storage temperature -20...+70°C
- humidity 20...80%

**Other technical data:**

- power supply: alkaline batteries or NiMH rechargeable batteries, size AA (8 pcs)
- LCD display segment, backlit
- weight with batteries approx. 1,3kg
- dimensions 260 x 190 x 60mm
- electromagnetic compatibility according to IEC 61000-6-3 and IEC 61000-6-2