

# MD1000<sub>R</sub>



## 1.000 V - 20.000 M INSULATION TESTER

- ✓ 3 TEST VOLTAGES:  
250V - 500V - 1.000V
- ✓ AUTO-RANGE
- ✓ GUARD TERMINAL
- ✓ HOLD MEMORY
- ✓ PROGRAMMABLE TIMER
- ✓ PROGRAMMABLE PASS/FAIL  
TEST
- ✓ CONTINUITY / LOW  
RESISTANCE MEASUREMENT
- ✓ VOLTMETER AC/DC 600V -  
TRUE RMS
- ✓ HIGH VOLTAGE WARNING LED

The Megabras **MD-1000R** is a smart, microprocessor-controlled, 1kV insulation tester for up to **20.000M** resistance measuring with **250V**, **500V** and **1000V** test voltage. It is a portable, hand-held, battery-powered equipment. Due to its measurement principle (actual voltage and current readings) it is a "true megohmmeter" and so the accuracy of resistance measurement is not affected by any test voltage error.

Operation is very simple and user-friendly: just connect the leads, switch-on the equipment, select the test voltage and press the start button. Then the equipment automatically selects the most suitable scale and shows the measured value in the digital display.

In order to guarantee the operator safety there are no accessible metallic parts. Output terminals are placed in the furthest and most protected area of the equipment. A light indicator shows high-voltage presence and is switched-off when the capacities (both internal and external) are discharged up to reaching a safe value.

Furthermore, it offers useful additional features: 200mA continuity range, low resistance measurement, AC/DC voltage measurement to 600V, selectable timer, hold memory, and selectable resistance limits for pass-fail testing, with acoustic indication.

Surface leakage paths may affect the measurement of high value insulation resistance. The use of the *GUARD* terminal permits to remove the effect of this current, substantially improving the test result.

# MD 1000R - TECHNICAL SPECIFICATIONS

## NOMINAL TEST VOLTAGES

250V - 500V - 1000V  
Negative, DC voltage

## RESISTANCE MEASUREMENT RANGE

From 10k up to 20.000M @ 500V and 1kV  
From 10k up to 10.000M @ 250V

## SHORT CIRCUIT CURRENT

1,5 ± 0,3mA

## TEST VOLTAGE ACCURACY

-0 / +15% for resistances between 10M and open circuit.

## BASIC ACCURACY

5% of reading ± 2 digits

## LOW RESISTANCE MEASUREMENT AND CONTINUITY TESTER

Range: 0,05 to 150  
Accuracy: 5% of reading ± 2 digits  
Test current: up to 200mA  
Continuity indicator: Activates at 5 ± 0,5

## BUILT-IN TIMER

5 - 10 - 15 - 30 seconds  
1 - 2 - 3 - 5 - 10 - 15 minutes

## PASS / FAIL TEST

1 - 2 - 5 - 10 - 20 - 50 - 100 - 200 - 500M  
1 - 2 - 5 - 10G

## VOLTMETER

True RMS  
Range: 0 - 600V AC/DC  
Accuracy: 3% of reading ± 2 digits

## OVERVOLTAGE PROTECTION

600V

## ADDITIONAL FEATURES

- Automatic Polarization Index
- Guard terminal
- Hold function

## SAFETY CLASS

IEC 61010-1/1990, IEC 61010 1/1992 - 2

## E.M.C

In accordance with IEC 61326-1

## ELECTROSTATIC IMMUNITY

In accordance with IEC 1000-4-2

## ELECTRO MAGNETIC IRRADIATION IMMUNITY

In accordance with IEC 61000-4-3

## POWER SUPPLY

Built-in, Ni-MH battery  
Autonomy: 1000 tests of 5 seconds with an interval of 25 seconds according IEC 61557-2. During the measurement is used a test resistance with the value is  $U_N \times (1000 / V)$ .

## BATTERY CHARGER

Built-in, with external power supply of 9V - 0,5A

## OPERATION TEMPERATURE

-5°C to 50°C

## STORAGE TEMPERATURE

-10°C to 60°C

## HUMIDITY

95% RH (without condensation)

## ALTITUDE

Up to 3000m

## WEIGHT

Approx. 0,5kg

## DIMENSIONS

102 x 195 x 46mm

## INCLUDED ACCESSORIES

- Measuring test leads, 1,80m. (2)
- GUARD test lead, 1,80m
- Power supply
- Carrying bag
- Operating instructions

CE MARK



Certified Q.M.S.



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