

MI 3252 MicroOhm 100A



**Accurate
low
resistances
measurement**

NEW



MI 3252 MicroOhm 100A is a portable low resistance ohmmeter used to measure low contact resistances of breakers and switches, busbars using test current from 100 mA to 100 A.

MEASURING FUNCTIONS:

- Resistance measurement: wide measuring range (10 $\mu\Omega$... 20 Ω) with high accuracy 0.25 % of reading and resolution down to 1 n Ω , adjustable test current (100 mA ... 100 A);
- Voltage drop measurement;
- Bar graph: on screen resistance bar graph.

KEY FEATURES:

- Safe: sustain external voltages in case of wrong connection, protection level (CAT IV, 50 V); automatically detects continuity in current circuit.
- Single and continuous measuring mode.
- Portable: rugged carrying case with a handle and lightweight design enable easy moving the instrument between sites.
- High protection degree: IP 64.
- Custom limits: the limits can be set for PASS or FAIL evaluation of test result.
- Battery powered: the instrument enables measurements with 100 A for up to 10 minutes when powered from internal battery only.
- Memory: built-in memory enables storage of up to 1000 test results.
- Downloadable: downloads test results via RS232 or USB cable directly to the PC with the help of the software.

APPLICATION:

Measurement of the resistance of:

- High, middle and low voltage circuit breakers
- High, middle and low voltage disconnecting switches
- High current bus bar joints
- Cable splices
- Welding joints

STANDARDS:

Functionality:
IEC 62271-100;
IEC 62271-1;
ANSI C37.09;
ASTM B 539;

Spain: El Real Decreto 223/2008

Electromagnetic compatibility:
IEC 61326-1

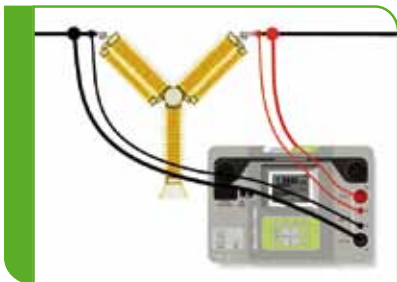
Safety (LVD):
EN 61010-1

Technical Specification

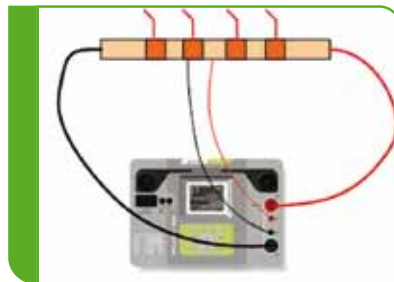
| Function | Range | Resolution | Accuracy | Current | |
|----------------------|--------------------------------|------------------------|-------------------------|-------------------------|---------|
| Resistance | 10,000 ... 199,999 $\mu\Omega$ | 1 n Ω | $\pm 0,25\%$ of reading | 100 A | |
| | 0,20000 ... 1,99999 m Ω | 10 n Ω | | 100 A / 50 A | |
| | 2,0000 ... 19,9999 m Ω | 100 n Ω | | 50 A / 10 A | |
| | 20,000 ... 199,999 m Ω | 1 $\mu\Omega$ | | 1 / 10 A | |
| | 0,20000 ... 1,99999 Ω | 10 $\mu\Omega$ | | 1 A / 100 mA | |
| | 2,0000 ... 19,9999 Ω | 100 $\mu\Omega$ | | 100 mA | |
| Function | Res. range | Voltage range | Resolution | Accuracy | Current |
| Voltage | 200 $\mu\Omega$ | 1,000 mV ... 20,000 mV | 1 μ V | $\pm 0,25\%$ of reading | 100 A |
| | 2 m Ω | 20,00 mV ... 200,00 mV | 10 μ V | | 100 A |
| | | 10,00 mV ... 100,00 mV | 10 μ V | | 50 A |
| | 20 m Ω | 100,0 mV ... 1,0000 V | 0,1 mV | | 50 A |
| | | 20,0 mV ... 200,0 mV | 0,1 mV | | 10 A |
| | 200 m Ω | 200,0 mV ... 2,0000 V | 0,1 mV | | 1 A |
| | | 20,0 mV ... 200,0 mV | 0,1 mV | | 10 A |
| | 2 Ω | 200,0 mV ... 2,0000 V | 0,1 mV | | 1 A |
| | | 20,0 mV ... 200,0 mV | 0,1 mV | | 100 mA |
| | 20 Ω | 200,0 mV ... 2,0000 V | 0,1 mV | | 100 mA |
| Power supply | 230 / 115 Vac | | | | |
| Battery | 12 Vdc / 12 Ah | | | | |
| Overvoltage category | 50 V / CAT IV | | | | |
| Display | 320 x 240 LCD with backlight | | | | |
| Communications | 2 x RS232 and USB | | | | |
| Memory | 512 kB (1000 test results) | | | | |
| Dimensions | 410 x 175 x 370 mm | | | | |
| Weight | 11,8 kg | | | | |

Typical applications

MI 3252 MicroOhm 100A can help you to find issues typically related with high contact resistance in circuit breakers, bus bars, weld joints, ground bonds. Those issues can lead to apparatus failure and damage of nearby components.



Example 1: Testing the contact resistance of high voltage **circuit breaker**. According to the IEC62271-100 this test should be performed with 50 A test current at least.



Example 2: Testing the **bus bar** contact resistance. By using higher currents bus bar resistance under similar condition as in normal use can be observed. This will give you more reliable result and easy decision about necessary maintenance.

Ordering information:

MI 3252

Standard set



- MI 3252 MicroOhm 100A
- Current test lead with crocodile clip, 5 m, 25 mm², 2 pcs
- Potential test lead, 5 m, 2 pcs (red, black)
- Test probe, 2 pcs (red, black)
- Crocodile clip, 2 pcs (red, black)
- Mains cable
- RS232 cable
- USB cable
- Bag for accessories
- PC SW HVLink PRO
- Instruction manual
- Calibration certificate

Optional accessories:

| Photo | Order No. | Description |
|-------|-----------|--|
| | S 2046 | Current test lead with insulated crocodile clip, 5 m, 25 mm ² , 2 pcs |
| | A 1333 | Resistor SHUNT, 750 $\mu\Omega$ |



Measuring and Regulation Equipment Manufacturer

METREL d.d.
Ljubljanska 77
SI-1354 Horjul
Tel: + 386 (0)1 75 58 200
Fax: + 386 (0)1 75 49 226
E-mail: metrel@metrel.si
http://www.metrel.si

Note! Photographs in this catalogue may slightly differ from the instruments at the time of delivery. Subject to technical change without notice.