



## 1. ELECTRICAL SPECIFICATIONS

Accuracy is indicated as  $\pm$  [% readings + (no. of digits\*resolution)] at 23°C  $\pm$  5°C, <60%HR

### Continuity test on protective and equalizing conductors

| Range         | Resolution | Accuracy               | Overload protection |
|---------------|------------|------------------------|---------------------|
| 0.00 ÷ 19.99Ω | 0.01Ω      | $\pm(2.0\%rdg + 3dgt)$ | 605Vrms Max         |

Test current: >200mA DC for R $\leq$ 5Ω (included calibration of test leads)

&gt; 10mA DC per R&gt;5Ω (included calibration of test leads)

Open voltage: 4 &lt; Vo &lt; 24VDC

### Insulation Resistance (DC voltage)

| Test voltage | Range           | Resolution | Accuracy                | Overload protection |
|--------------|-----------------|------------|-------------------------|---------------------|
| 250V         | 0.001 ÷ 0.100MΩ | 0.001MΩ    | $\pm 10dgt$             | 605Vrms Max         |
|              | 0.101 ÷ 3.999MΩ |            | $\pm(2.0\%rdg + 5dgt)$  |                     |
|              | 4.00 ÷ 39.99MΩ  | 0.01MΩ     | $\pm(5.0\%rdg + 5dgt)$  |                     |
|              | 40.0 ÷ 399.9MΩ  | 0.1MΩ      |                         |                     |
|              | 400 ÷ 1000MΩ    | 1MΩ        |                         |                     |
| 500V         | 0.001 ÷ 0.250MΩ | 0.001MΩ    | $\pm 15dgt$             |                     |
|              | 0.251 ÷ 3.999MΩ |            | $\pm(2.0\%rdg + 5dgt)$  |                     |
|              | 4.00 ÷ 39.99MΩ  | 0.01MΩ     |                         |                     |
|              | 40.0 ÷ 399.9MΩ  | 0.1MΩ      |                         |                     |
|              | 400 ÷ 2000MΩ    | 1MΩ        | $\pm(5.0\%rdg + 5dgt)$  |                     |
| 1000V        | 0.001 ÷ 0.250MΩ | 0.001MΩ    | $\pm 15dgt$             |                     |
|              | 0.251 ÷ 3.999MΩ |            | $\pm(2.0\%rdg + 5dgt)$  |                     |
|              | 4.00 ÷ 39.99MΩ  | 0.01MΩ     |                         |                     |
|              | 40.0 ÷ 399.9MΩ  | 0.1MΩ      |                         |                     |
|              | 400 ÷ 1000MΩ    | 1MΩ        | $\pm(3.0\%rdg + 5dgt)$  |                     |
|              | 1000 ÷ 4000MΩ   |            | $\pm(5.0\%rdg + 10dgt)$ |                     |

Open voltage: &lt;1.3 x Vo

Accuracy nominal test voltage: -0%, +10%

Short circuit current: &lt;3.0mA

Nominal test current: 1mA @ 1KΩ x V (1mA @ 500KΩ)

### DC Voltage

| Range        | Resolution | Accuracy               | Input impedance | Overload protection |
|--------------|------------|------------------------|-----------------|---------------------|
| 0.1 ÷ 600.0V | 0.1V       | $\pm(0.5\%rdg + 1dgt)$ | 3MΩ             | 605Vrms Max         |

### AC Voltage

| Range        | Resolution | Accuracy               | Input impedance | Overload protection |
|--------------|------------|------------------------|-----------------|---------------------|
| 0.1 ÷ 600.0V | 0.1V       | $\pm(0.8\%rdg + 4dgt)$ | 3MΩ             | 605Vrms Max         |

Max crest factor:  $\sqrt{2}$ 

### Resistance and Continuity test

| Range         | Resolution | Accuracy               | Overload protection  |
|---------------|------------|------------------------|----------------------|
| 0.00 ÷ 19.99Ω | 0.01Ω      | $\pm(2.0\%rdg + 3dgt)$ | 605Vrms max for 1min |

Buzzer sound for resistance &lt;2Ω




## 2. GENERAL SPECIFICATIONS

### DISPLAY:

|              |   |
|--------------|---|
| Features:    | double LCD Custom 4 digit with rdg max 9999 points sign and decimal point |
| Sample rate: | 2times/s  |
| Conversion:  | Average value   |

### POWER SUPPLY:

|                         |   |
|-------------------------|---|
| Batteries:              | 4 x1.5V type LR6-AA-AM3-MN 1500 alkaline batteries  |
| Low battery indication: | "  +" symbol at display  |
| Life batteries:         | Multimeter: about 50 hours<br>Lo $\Omega$ : > 1000 test @ 1 $\Omega$<br>M $\Omega$ 250: >1000 test @ 480k $\Omega$<br>M $\Omega$ 500: >1000 test @ 480k $\Omega$<br>M $\Omega$ 1000: >1000 test @ 480k $\Omega$ |

### MECHANICAL FEATURES:

|                              |                  |
|------------------------------|------------------|
| Dimensions (L x W x H):      | 240 x 100 x 45mm |
| Weight (included batteries): | 450g             |

### WORKING ENVIRONMENTAL CONDITIONS:

|                            |                   |
|----------------------------|-------------------|
| Reference temperature:     | 23°C $\pm$ 5°C    |
| Working temperature:       | 0°C $\div$ 50°C   |
| Allowed relative humidity: | <70%RH            |
| Storage temperature:       | -10°C $\div$ 60°C |
| Storage humidity:          | <70%RH            |

### REFERENCE STANDARDS:

|                             |               |
|-----------------------------|---------------|
| Continuity test with 200mA: | IEC/EN61557-4 |
| Insulation resistance:      | IEC/EN61557-2 |

### GENERAL REFERENCE STANDARDS:

|                                  |   |
|----------------------------------|---|
| Safety of measuring instruments: | IEC/EN61010-1   |
| EMC:                             | IEC/EN61326-1   |
| Product type standard:           | IEC/EN61557   |
| Insulation:                      | double insulation   |
| Pollution degree:                | 2   |
| Overvoltage category:            | CAT III 550V (Phase – Ground)<br>CAT III 550V (Phase – Phase) |
| Max height of use:               | 2000m   |

**This product conforms to the prescriptions of the European directive on low voltage 2014/35/EU and to EMC directive 2014/30/EU**

**This product conforms to the prescriptions of the European directive 2011/65/EU (RoHS) and the European directive 2012/19/EU (WEEE)**