

Data Sheet

Digital Milli-Ohm Meter  
Model 310

The model 310 Digital Milli-Ohm Meter is used to ensure continuity and integrity of a wire, cable, conduit or any electrical connection. The 310 has a display resolution of 100 micro-ohms and has a professional four wire Kelvin test lead set included to ensure accurate readings. The heavy duty case has a rubber seal to make the unit water resistant and a convenient shoulder strap.

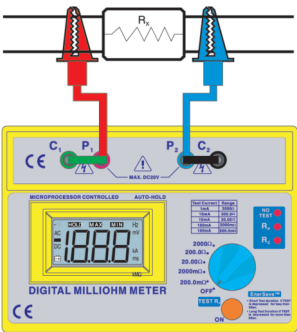
Features & Benefits

- Four wire Kelvin lead measurements
- Over-voltage and over-temperature protection
- 5 ranges with 100  $\mu\Omega$  max. resolution
- Water resistant case with shoulder strap
- Auto Power Off
- IEC/EN 61010-1 / CE
- Included: 4-wire Kelvin leads, carrying case with shoulder strap and batteries



| Specifications                 | 310                                                                                                                                                                                                                                 |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Electrical                     |                                                                                                                                                                                                                                     |
| Measuring ranges               | 0-200.0 m $\Omega$ in steps of 100 $\mu\Omega$<br>0-2000 m $\Omega$ in steps of 1 m $\Omega$<br>0-20.00 $\Omega$ in steps of 10 m $\Omega$<br>0-200.0 $\Omega$ in steps of 100 m $\Omega$<br>0-2000 $\Omega$ in steps of 1 $\Omega$ |
| Accuracy                       | $\pm 0.5\%$ of reading $\pm 2$ digits over the operating temperature range -15° C to +55° C, with the supplied test leads.                                                                                                          |
| Test current                   | 1 mA => 2000 $\Omega$ range<br>10 mA => 200 / 20 $\Omega$ ranges<br>100 mA => 2000 m / 200 m $\Omega$ ranges.                                                                                                                       |
| Test current accuracy          | $\pm 0.3\%$                                                                                                                                                                                                                         |
| Protection fuses               | Supply: 1.5 A, HBC, 5 x 20 mm, DIN<br>Current: 1 A, HBC, 5 x 20 mm, DIN<br>Voltage: 0.5 A, HBC, 5 x 20 mm, DIN                                                                                                                      |
| Safety                         | LVD BS EN 61010-1<br>EMC BS EN 50081-1, BS EN 50082-1                                                                                                                                                                               |
| Mechanical                     |                                                                                                                                                                                                                                     |
| Bump test                      | IEC68-2-29                                                                                                                                                                                                                          |
| Vibration test                 | IEC1010, clause 8.3                                                                                                                                                                                                                 |
| Drop test                      | IEC1010, clause 8.4                                                                                                                                                                                                                 |
| Impact test                    | IEC1010, Clause 8.2                                                                                                                                                                                                                 |
| Rated environmental conditions | Indoor use<br>Pollution degree 2<br>Altitude up to 2000 meter<br>Relative humidity 80% max.<br>Ambient temperature 0°C~40° C                                                                                                        |
| One Year Warranty              |                                                                                                                                                                                                                                     |
| Weight                         | 3.4 lbs (1.542 kg)                                                                                                                                                                                                                  |
| Dimensions (WxHxD)             | 9.82" x 4.33" x 7.48" (250 x 110 x 190 mm)                                                                                                                                                                                          |

Simplified Measurement



Applications

The model 310 Digital milli-ohm meter, with its measuring range of 100  $\mu\Omega$  to 2000  $\Omega$ , is suitable for a wide range of applications such as:

- Measuring the winding resistance of electric motors, generators and transformers
- Bond testing in mines, aircraft, railways, ships, domestic and industrial wiring installations
- Measuring the ring main continuity testing in industrial and domestic wiring i installations
- Measuring resistance in electronic equipment such as shunts, pcb tracks, switch and relay resistance
- Checking compression joints on overhead lines
- Testing and maintenance of switchboard /sub-station equipment on such items as fuses, joints, contacts and bonds