



High accuracy and fast measurement speed

Apparatus for measuring the surface resistivity and electrical resistance through a material.

The Electrostatic properties are an important factor for certain items of protective clothing, in particular where electrostatic discharge can cause ignition. One factor that can be measured is the surface resistivity and the vertical resistance of protective clothing materials. Electrodes are placed either on the same surface or on opposite surfaces of a material. The electrodes are connected to a Tera-Ohmmeter which applies a DC potential of 500 volts to determine the electrical resistance.

Two-Part Test Electrode

The Two-Part Test Electrode consists of a Central electrode and an Annular electrode. The Central electrode is a 50.4 diameter metal disc which makes contact with the surface of the material under test and a 67.6mm diameter guard plate, separated by a high insulating material. The Annular electrode is a metal ring with inside diameter of 69.2mm, leaving an

airgap between the Central electrode and the Annular electrode. The combined contact pressure of the two parts is 10N.

To perform the Surface Resistivity test (EN 1149-1), the material under test is placed on the insulating base plate, which in turn is placed on the Earthed steel plate, the two part electrode is then placed on the upper surface of the material and the Tera-Ohmmeter is connected between the Central and the Annular Electrodes.

To perform the Vertical Resistivity test (EN 1149-2), the material under test is placed on the Base Plate electrode, a 110mm diameter metal disc with insulating material on the lower side. The two part electrode is then placed on the upper surface of the material and the Tera-Ohmmeter is connected between the Central and Base Plate electrodes. The Annular electrode is connected to earth to form a guard ring.

Key Features

- ✓ **Tera-Ohmmeter**
- ✓ **Two-part Test electrode used for Surface Resistivity and Vertical Resistivity test**
- ✓ **Base Plate electrode for Vertical Resistivity test**
- ✓ **Steel base plate for Surface Resistivity Test**
- ✓ **Conforms to EN 1149-1 and EN 1149-2**

Dimensions: 440mm (W) x 455mm (D) x 131mm (H)

Weight: approx. 15kg

Measurement Range: $10^4\Omega - 2 \times 10^{14}\Omega$ (at 100VDC test voltage)

Test Voltage: From 1 VDC to 1500 VDC in 1VDC steps

Main Voltage: 100-240 VAC +/- 10%, 50-60 Hz, Single Phase

Power: 700 VA Max

Order Code: PCT:006