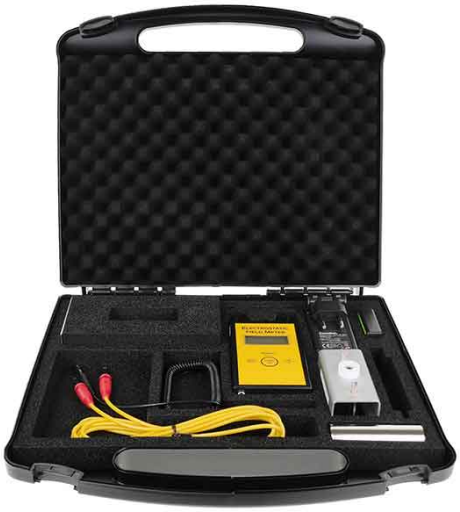
ELECTROSTATIC FIELD METER WITH WALKING TEST KIT



SKU: EL73728

ELECTROSTATIC FIELD METER WITH WALKING TEST KIT

Electrostatic field meter with walking test accessories for detecting the levels of charge generated by the human body, in accordance with the IEC 61340-5-1 standard.
One-button operated. Guarantees precise measurements thanks to high-quality components.
The included ESD safe plastic housing ensures optimum protection against electrostatic discharges.
Thanks to the **HOLD function**, measured values can be frozen in the display, allowing accurate measurements to be taken even in places that are difficult to access.
Essential in environments such as electronics manufacturing, repair laboratories.
It helps to prevent damage to components, ensuring product quality and reliability.

Functioning

The meter measures the direct voltage field strength (E). Over the selected distance, the field strength is converted to the charge on the object in Volts by an integrated micro-computer. For example, with a distance of 10 cm and a displayed value of 1000 V the field strength is:

$$E = 1000\ V / 0.1\ m = 10000\ V/m.$$

After turning on the device, the default measurement distance is **2 cm**. To measure at this distance, simply position the device 2 cm from the object being measured (you can use the spacers, if mounted on the device, as a reference). This distance is ideal in most cases, as it allows you to measure charges up to 20 kV.
In case it is necessary to adjust the measurement distance:
• For very high charges or rough surfaces, the distance must be increased (**5 cm**, **10 cm**).
• For very low charges, the minimum distance (**1 cm**) must be selected.

The unit can also display the E-Field strength directly, in E-FIELD METER mode.

Walking Test Kit

The included MK measuring head and portable electrode extend the meter's functions for the execution of walking tests.
In electronics, the term "**walking test**" refers to a technical check that **measures the electrostatic charge generated by a person's body while walking on an ESD safe floor, wearing ESD safe footwear**. It therefore allows you to verify whether the "person-shoe-floor" grounding system keeps the electrostatic charge of the human body below the limits prescribed by industry standards.
During the test, **the operator walks while holding the electrode**, which is connected to the tester.

Specifications

- Type of measurement: **Parametric amplifier** - The electric field influences a current proportional to the electrostatic field. The current is amplified and measured with a selective amplifier. No energy is taken from the field over time means
- Output: ± 1 V (Ri > 1 kOhm) proportional to the measured field strength
- Calibration accuracy: < 5%
- Digital Analog Converter (DAC) resolution: 10 bit
- Very high zero point stability (compared to other systems): adjustment before each measurement is not necessary
- Standard measuring distance: 2 cm - Other selectable distances: 1 cm, 5 cm, 10 cm
- Measuring range: 0 to ± 200 kV (**DISTANCE** mode), 0 to 1 MV/m (**FIELD STRENGTH** mode)
- **VOLTMETER** mode measuring range (with DISTANCE selection): **0 to ± 200 kV**
  - Distance **1 cm**: 0 to ± 10 kV - Max. resolution: 1 V
  - Distance **2 cm**: 0 to ± 20 kV - Max. resolution: 2 V
  - Distance **5 cm**: 0 to ± 50 kV - Max. resolution: 5 V
  - Distance **10 cm**: 0 to ± 100 kV - Max. resolution: 10 V
- **E-FIELD METER** mode measuring range (the analogue interface ± 1V is active): **0 to 1 MV/m**
  - Manual range: ± 20 kV/m (with MK: ± 200 V) - Max. resolution: 20 V/m
  - Manual range: ± 200 kV/m (with MK: ± 2 kV) - Max. resolution: 200 V/m
  - Manual range: ± 1 MV/m (with MK: ± 4 kV*) - Max. resolution: 21 kV/m
- LCD display resolution: 2 lines, 12 alphanumeric digits
- Operating mode: Battery or Alkaline Battery (9 V) - Operating time: approx. 10 hors with Alkaline battery
- Permanent battery voltage monitoring with **automatic shutdown**
- ESD safe: Yes
- Dimensions: 70 x 122 x 26h mm
- Weight: approx. 130 g.

* Attention: Maximum measuring voltage with MK!

Scope of delivery: Electrostatic field meter with 2 screwable spacers (2 cm), Portable ESD safe case with conductive foam insert, NiMH battery (9 V), Plug-in charger, MK measuring head, Hand electrode, Tester stand, Silicone cable (2 m), Grounding cable (Banana/Banana + Alligator clip), User manual on USB stick, Calibration certificate.