



### Cleaning

The two spacer bolts and the measuring sensor at the front of the electrostatic sensors have to be protected against any type of contamination at any rate. If, however, the device gets contaminated, e.g. with finger prints, the spacers and the measuring sensor have to be cleaned with a paper towel impregnated with pure alcohol. Never use any other cleaners. When the device is more heavily contaminated, please contact the manufacturer.

### Storage

Store the electrostatic sensor STS1 in the supplied carry case in order to protect it from contamination and electrostatic charging. Storage in electrostatically chargeable materials (e.g. plastic foil) may result in measuring errors and, if the worst comes to the worst, in destruction of the sensor.

### Calibration

It is recommended to carry out a calibration when the device is contaminated and at intervals of one year each.

# Electrostatic Sensor STS1

Measuring of electrostatic charges

### Technical data

Dimensions	144 x60x27 mm
Weight	105 g
Display	3 1/2 LCD
Measuring ranges	2000 V / 20 kV
Resolution	1 V / 10 V
Accuracy	10 %
Current input	20 mA
Battery or accumulator	9V Block

## Operation

### Switching on

The electrostatic sensor STS1 is switched on by shortly pressing the button "EIN/AUS", pressing the button again switches off the device.

### Grounding

During zeroing and during measurements, the electrostatic sensor STS1 has to dispose of a reference potential and therefore has to be connected to ground potential by means of the earthing cable on the socket on the side of the device.

The electrostatic sensor STS1 always has to be held in such a way that it is in contact with the conductive foam rubber at the bottom of the device. This is the only way to ensure that the person carrying out the measurement is sufficiently earthed and to avoid measuring errors. This is particularly important when the person carrying out the measurement is in contact with electrostatically chargeable materials (e.g. floor coverings).

### Zeroing the sensor

For zeroing, the sensor has to be pointed away from all electrostatically chargeable materials, and the button "Nullen" has to be pressed for approx. 2 seconds for the measuring range 20 kV, approx. 5 seconds for 2000 V. Keep the button pressed for a longer period of time in order to increase accuracy.

### Measuring of electrostatic charges

For measuring, the sensor that has been set to zero is

placed with the two white spacers at the front of the device on the material to be tested. The electrostatic sensor STS1 displays the voltage with polarity at the surface of the material. Make sure that the sensor is always held vertical to the material to be tested.

By switching-over with the button "20 kV/2000 V", you can select the ideal measuring range. If only the figure one is indicated on the left-hand side of the display, the measuring range has been exceeded. Before starting another measurement, it is recommended to zero the sensor again.

As air humidity has a major influence on the development of electrostatic charges, it is recommended to measure and document it.

When the object to be measured towers above the sensor surface by less than approx. 2 cm, field inhomogeneities result in a reduction of the indicated value. When measurements are carried out on small objects, it is recommended to determine the influence of the size of the object by laboratory means beforehand.

## Maintenance

### Inserting the battery

If an arrow "↔" is displayed at the top left of the display during operation, the battery voltage or the accumulator voltage is below the safety limit and if you continue to use the low battery, this may result in measuring errors.

As a result, the battery or the accumulator of the type 9V E-Block has to be replaced immediately. For inserting the battery, open the battery compartment cover at the bottom of the device by exercising a slight pressure on it.