SE-SFM-030 Static Electric Fieldmeter

Handheld non-contact surface charge measurement up to 200 kV — two auto-selected ranges, polarity display, hold function



KEY DATA

Measurement range
0 – 200,000 V (200 kV)

Accuracy
± 5 % (at calibration)

Measurement distance
100 mm

Power
9 V PP3 battery

Overview

The FÖGE SE-SFM-030 is a precision handheld static electric fieldmeter for engineers, process technicians and quality managers who need to investigate, quantify and diagnose static electricity problems on industrial production lines. Static charge is invisible until it is strong enough to cause an operator shock — by which point it may already have caused dust contamination, coating failures, material misalignment or damage to electronic components. The SE-SFM-030 measures the electrostatic surface voltage on any non-conductive material at a fixed 100 mm distance, displaying the magnitude in volts and the polarity.

Key features

- Non-contact electrostatic surface voltage measurement at fixed 100 mm distance
- Measurement range up to 200 kV — covers the full range of industrial static charges
- Two auto-selected ranges: 0 – 20 kV (10 V resolution) and 20 – 200 kV (100 V resolution)
- Polarity display — positive (+) or negative (–)
- Hold function — freezes the reading for difficult measurement positions
- Accuracy ±5 % at calibration
- Battery-powered — fully portable, no mains supply needed
- Supplied complete: carrying case, battery and earth cord
- Compact handheld design

Technical specifications

Product code	SE-SFM-030
Measurement principle	Non-contact electrostatic field measurement at fixed 100 mm distance (Q = CV)
Measurement distance	100 mm — fixed, standardised distance
Measurement range	0 – 200,000 V (200 kV) — two auto-selected ranges
Range 1	0 – 20 kV · resolution 10 V
Range 2	20 – 200 kV · resolution 100 V
Range selection	Automatic — no manual switching
Accuracy	± 5 % (at calibration)

Calibration	On a 150 × 150 mm charge plate (other plate sizes on request, e.g. 450 × 450 mm)
Drift	< 0.1 % in 10 s
Polarity display	Positive (+) and negative (−)
Hold function	Yes — freezes reading on display
Display	3½-digit LCD
Power	9 V PP3 battery — included; low-battery indicator; automatic switch-off after 60 s
Supplied with	Carrying case · 9 V battery · earth lead · certificate of calibration
Earth lead	3 mm curly earth cord with crocodile clip / 4 mm bayonet connector
Design	Handheld — portable
Dimensions	124 × 24 × 64 mm
Weight	175 g
Construction	Anodised aluminium case, recessed stainless steel sensing plate
Humidity	70 % rH, non-condensing max.
Certification	CE — EN-500081-1 (EMC), BS7506-2 (construction)

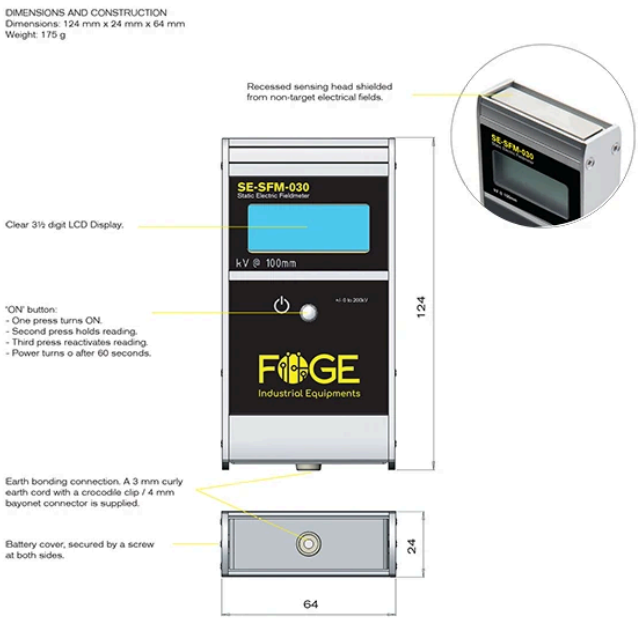
How to use the SE-SFM-030

⚠ Always connect the earth cord to a known ground point before taking measurements. An unearthed meter gives inaccurate readings.

1. Connect the earth cord to a known earth point (e.g. a grounded machine frame or earth terminal).
2. Switch the meter on and allow 30 seconds for the electronics to stabilise.
3. Hold the sensor end of the meter at exactly 100 mm from the surface to be measured.
4. Point the sensor directly at the surface — do not hold it at an angle.
5. Read the voltage and polarity from the display. Note both the sign (+ or −) and the magnitude.
6. If the reading position is awkward, press HOLD to freeze the display, then read the value from a comfortable position.
7. To map static distribution, take readings at multiple points across the surface, recording location and value for each.
8. To verify ionization effectiveness, measure before switching on the ionizing equipment, then again after — and compare.

Tip: take at least three readings at each point and average the results. Surface charge can fluctuate slightly with humidity, temperature and material movement.

Dimensional drawing



Dimensions and construction of the SE-SFM-030 fieldmeter: 124 × 24 × 64 mm, 175 g, 3½-digit LCD, recessed sensing head, earth bonding connection

What's included in the kit

SE-SFM-030 fieldmeter	Handheld static electric fieldmeter
Carrying case	Protective case
Battery	Installed and ready
Earth cord	Grounds the meter for an accurate reference potential

Product information and ordering: sales@fogegmbh.com · +49 9372 9809477 · foge-antistatic.com