



# Handheld Electrostatic Fieldmeter

## FMX-004

Simco-Ion's Model FMX-004 Fieldmeter is a compact handheld electrostatic fieldmeter used for locating and measuring static charges. Its pocket size makes it handy to use and four-button operation makes it easy to operate.

The FMX-004 measures static voltages within  $\pm 30$  kV (30,000V) at a distance of 1 inch. Results are simultaneously displayed numerically and in bar graph format. POWER on/off, ZERO adjustment, MODE and HOLD are all push-button operation. The HOLD button allows the display to retain the static charge reading. This is especially useful where the display is difficult to see during measurement.

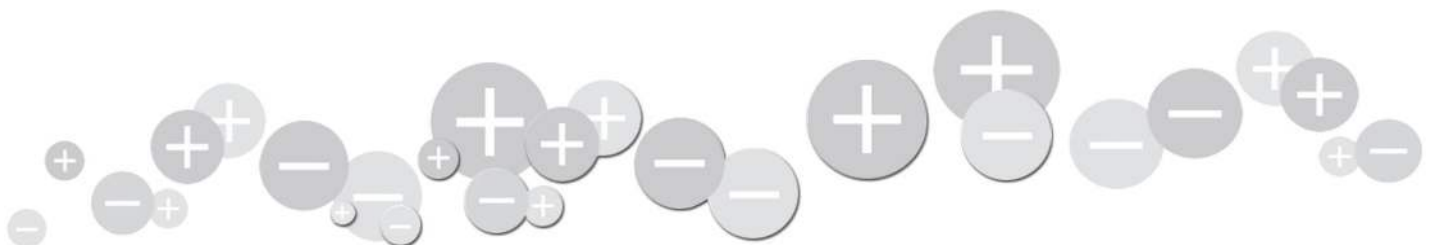
Two LED guide lights to help position the fieldmeter at the right distance from a charged test object. The conductive case and ground snap facilitate grounding for accurate measurement. The circuitry of the FMX-004 has been designed to make measurements in areas using air ionization.

### Features

- Digital display with color-coded bar graphs
- Lightweight, compact design
- Distance ranging lights
- Audible alarm feature
- Battery-powered with an auto shut-off feature
- Analog Output

### Benefits

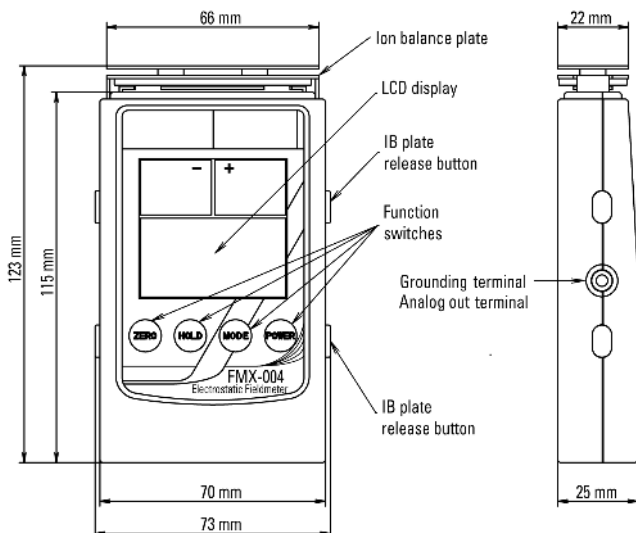
- Easy to read especially in low light environments
- Convenient to use in hard to reach areas
- Ensures accurate distancing and measurements
- User convenience feature to insure proper operation
- Extends battery life; energy efficient
- Signals to a chart recorder or other device for hard copy documentation of static charge levels



| Specifications   |  |
|------------------|--|
| Range            | 0 to ±1.49 kV (low range); ±1.0 kV to ±30 kV (high range)  |
| Balance          | 0 to ±300V   |
| Distance         | 1" ±0.2" (25 mm ±0.5 mm); LED guide for correct distance (between charged object and Fieldmeter)   |
| Response Time    | <1s  |
| Accuracy         | ±10%   |
| LCD Display      | Bar graph: red POSITIVE POLARITY; blue NEGATIVE POLARITY   |
| LCD Renewal Rate | 5 times/s  |
| Bar Graph Range  | (Auto) ±0.1 kV (Low); ±2 kV (High); ±20V ion balance   |
| Digital Display  | Auto-ranging: 3 digits x.xx = 0 to ±1.49 kV xx.x = ±1.0 kV to ±30.0 kV (Hi); xxx = 0 to 300 (Ion Balance); [HOLD]: Retains display after a measurement; [A.OFF]: Auto power-off function deactivated; [Err]: Error sign if sensor is damaged; Battery condition display (4 stages) |
| Alarm            | 1 beep POWER ON; depress power button >3s 3 beeps POWER ON W/AUTO OFF disabled; short beeps @ 1s interval 5s before power off AUTO POWER-OFF; continuous beep sound OVER RANGE   |
| Auto Power-off   | Power turns off automatically after 5 min; [A.OFF] is displayed whenever this feature is disabled  |
| Operating Env.   | Temperature 50-100°F (10- 40°C); humidity 0-60% RH (non-condensing)  |
| Power            | 9V, 6F22Y manganese battery  |
| Battery Life     | Approximately 30 hours   |
| Enclosure        | Conductive resin (ABS)   |
| Dimensions       | 4.8"L x 2.9"W x 1.0"D (123 x 73 x 25 mm)   |
| Weight           | 6 oz (170g)  |
| Warranty         | Two year limited warranty  |

## Ordering Information

|            |  |
|------------|--|
| 91-FMX-004 | FMX-004 Hand-Held Fieldmeter with Charge Plate |
|------------|--|



## Special Features

The FMX-004 measures both positive and negative polarity charges up to ±30 kV (30,000V) at a distance of 1". Results are simultaneously shown numerically and in bar graph format on the unique multi-colored display that also displays battery charge status. Power on/off, zero adjustment, Ion Balance (MODE) and hold are all push button operation. The hold button allows the display to retain the static charge reading. This is especially useful where the display is difficult to see during measurement.

Two LED guide lights to help position the fieldmeter at the right distance from a charged test object. The conductive case and ground snap facilitate grounding for accurate measurement. The circuitry of the FMX-004 has been designed to make measurements in areas using air ionization.

## Analog Output

The FMX-004 has an optional cable and bracket kit available. The bracket enables the fieldmeter to be mounted for continuous reading collection.

The analog output cable allows you to feed an output signal to a PLC, data acquisition card, data logger, chart reader or other devices.



## Maintenance

As with most measuring devices, calibration is necessary for optimal performance. We recommend recalibrating the FMX-004 once a year. Simco-Ion offers recalibration services that include a certificate with or without data.

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DS-FMS004\_V3 - 10/20  
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