

AC Electric Field Meter Model ACEF

This meter measures AC electric field in the vertical direction (same direction as the long axis of the meter). The sensor is in the top 1/3 of the meter. Please keep hands away from the top ½ of the meter. This prevents your hands from reducing the signal.

To operate, turn the meter on (slide switch is on right side). Point toward the electric field source and read the display, which is in units of volts per meter (equivalent RMS). This meter uses advanced AC detection circuitry, which is more accurate and faster reading, especially at high frequency and in weak field strength, than existing meters.

Absolute accuracy at 40 Hz – 20 KHz is +/-2% of reading +/- 1 count (1 count is 1 volt per meter). Reading can be done within one second no matter how much the field changes. For frequencies up to 50 KHz, accuracy is still +/-2%, but the last digit will read lower by 2 counts at 25KHz and by 4 counts at 50 KHz. At 100 KHz, the meter will read low by 5% and low by 9 counts. For example, if the field is 5 V/m at 10 KHz, the meter will correctly read "005". At 25 KHz (also 5 V/m), the meter will read "003" (2 counts low), but for stronger fields such as 1000 V/m at 25 KHz, the meter will read 980 to 1020 V/m, minus 002, which equals 978 to 1018 V/m actually reading on the meter.

When you see "LOW BATTERY", replace the battery by sliding down the back panel (bottom half of meter). Typical battery life is 20 hours.