

DATASHEET



ELECTRO FIELD METER WITH ACCESSORY SET

SKU: EP0201013



PRODUCT INFORMATION

The field meter is housed in a conductive plastic housing. At the upper end of the device is a star-shaped influential electrode. At a small distance in front of this, a mass modulation impeller of the same star shape is rotating. The ring electrode system enclosing the influential electrode serves for the mechanical protection of the modulation impeller and the field plate. The display on the front is via a 2x12-digit alphanumeric LCD display. The field meter has a built-in microcomputer, which performs the following tasks:

- Conversion of the measured field strength over the set measuring distance into the charging (Volt)
- "One button" operation
- Permanent battery voltage monitoring with automatic shutdown
- Charge Plate Mode (optional with CPS Set)

Analog output:

The device has a DAC output $\pm 1V$ proportional to the measured field strength. So you can connect a PC to visualize and store the measurements. If $> 20\%$ is exceeded, "Over range" will be shown on the display. Since an analogue voltage output only makes sense if there is no automatic range switching, the voltage output is only active in the manual E-field measuring ranges. For all other functions the DAC is set to "0 V".

Measuring Principle:

The electric field meter is a parametric amplifier. The charges induced by the electric field generate an alternating current proportional to the field strength. This is measured by means of a selective amplifier without the energy being extracted from the electric field on a time average.



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PRODUCT INFORMATION

Measuring Ranges:

Distance	Range	Max. Resolution
1 cm	0 to 10 KV	1 V
2 cm	0 to 20 KV	2 V
5 cm	0 to 50 KV	5 V
10 cm	0 to 100 KV	10 V
20 cm	0 to 200 KV	20 V

Technical Details:

Dimension (L x B x H)	70 mm x 122 mm x 26 mm
Weight	130 g
Adjustment in the plate capacitor	200 mm x 200 mm, Distance 20 mm
Balance precision	< 5%
Output voltage DAC	± 1 V (RI > 1 K Ω)
D/A Converter	Resolution DAC 10 Bit
Battery pack	9v Alkali –Battery or NiMH– Akku
Operation time	Around 10h with Alkali-Battery

Packaging:

- Case with conductive insert
- Electric Field meter EFM 823
- 2 x 9V NiMH batteries
- Plug-in charger Spiral cable with alligator clip
- Operation manual
- Calibration certificate

