

## **Introduction**

The MagneMeter enables you to make a quick and informed measurement of power frequency magnetic field levels in your environment. Readings are shown on a series of LED indicator lights.

It measures the ELF magnetic fields caused by substations, power-lines, transformers, house wiring, most electric railways and electrical appliances used in the home and workplace.

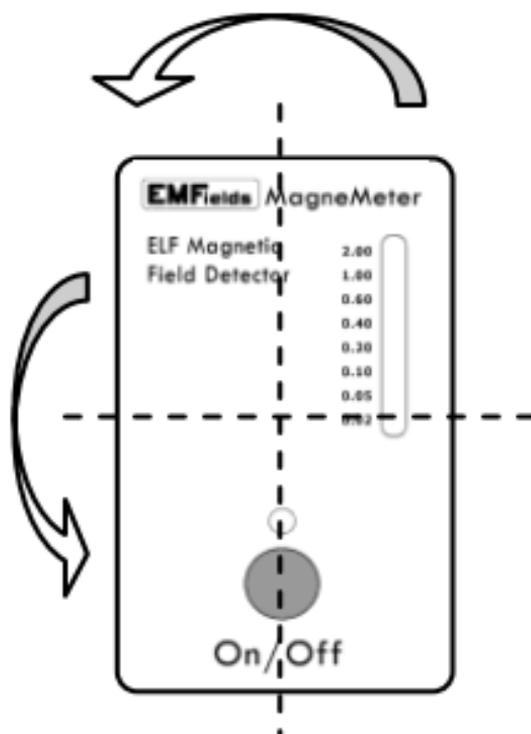
The instrument should be covered with a plastic bag if it is being used in the rain, to prevent water getting in. The bag will not affect the magnetic field readings.

## **Operation**

Press the button to turn it on. The LED display should flash briefly. A green LED above the On/Off button should appear. If this changes to red it indicates that the battery (9 volts / PP3) needs replacing. An alkaline cell gives c. 30 hours use.

Press the button again to turn it off. It will automatically turn off after a few minutes to save battery life.

The MagneMeter measures with a single coil. This means that it will give different readings when held at different angles. To get an accurate reading, it should be held in one place and slowly rotated through both axes indicated until the maximum reading is found.



## Specification

50 Hz – 100 Hz  $\pm 5\%$   $\pm 0.005 \mu\text{T}$

15 Hz – 2000 Hz  $\pm 3\text{dB}$

Power required: 9 volts @ 16 mA

When two LEDs next to each other are both lit, this indicates an extra scale point half-way between the printed ones (i.e. 0.035, 0.075, 0.15, 0.3, 0.5, 0.8 and  $1.5 \mu\text{T}$ )

## **Interpreting the levels**

Typical background fields are around **0.05  $\mu\text{T}$**  in residential UK houses (0.02 to 0.10  $\mu\text{T}$  range).

A statistical doubling has been found between childhood leukaemia and long-term exposure to levels of 0.40  $\mu\text{T}$ . Other health problems associated with long-term low levels of exposure include depression, miscarriage, neurodegenerative disease, etc.

**Readings should ideally be below about 0.10  $\mu\text{T}$  in sleeping areas and 0.15  $\mu\text{T}$  in other living areas.**

Much more information is available on the EMFields website:

[www.emfields-solutions.com/](http://www.emfields-solutions.com/)

## European Approvals

EN61000-6-3:2001+A11:2004  
EN61000-6-1:2001 and also meets  
ROHS 2 2011 (2002/95/EC) and  
WEEE (2012/19/EU)(2002/96/EC)



## Warranty

A new MagneMeter has a two year manufacturer's warranty. This does not cover general wear & tear or physical (including water) damage.

## EMFields

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