



Magnet field probe ENB



UMS 4 and ENB - the solution for measuring electromagnetic fields according to EN 62233

Magnet field probe ENB

- Standard-compliant measurement according to EN 62233
- For use with the measurement system UMS4
- Suitable for all signal forms due to measuring with reference procedure
- Isotropic probe with 3 x 100 cm² coil surface
- Frequency range 10 Hz to 400 kHz
- Direct display of the measured value in percent of the limit value
- Data logger function and serial interface

EMC test according to EN 62233

The European standard EN 62233 defines the admissible electromagnetic radiation of electrical equipment for use in the home and similar purposes. For this purpose, exacting guidelines with regard to the probe and to signal conditioning are defined for the test. With the probe ENB in connection with the measuring system UMS4, these measurements can be carried out easily and in a time-saving manner because signal conditioning and the necessary weighting of the frequency components that are found are carried out automatically and the measured result is displayed directly in percent of the limit value.

Measuring system UMS4

The measuring system UMS4 is a multi-purpose measuring device with integrated data logger for the use in testing laboratories and for environmental protection and industrial safety applications. It enables a parallel acquisition and recording of up to 16 measured quantities. A comprehensive range of probes for electromagnetic fields, climatic, chemical and any further technical measured quantities is available.

Varied special functions such as adjustable limit values, an acoustic display and different analog outputs and serial interfaces help to make it easy to operate. The PC program DATA-UMS specifically developed for the measuring system UMS4 enables a comprehensive and uncomplicated evaluation and documentation of recorded measured data.

Magnetic field probe

The field probe for an isotropic measuring of alternating magnetic fields is equipped with three coils arranged vertically to each other with a surface of 100 cm² each. Independently of the quality of the magnetic field to be examined, all frequency components in the signal in the range



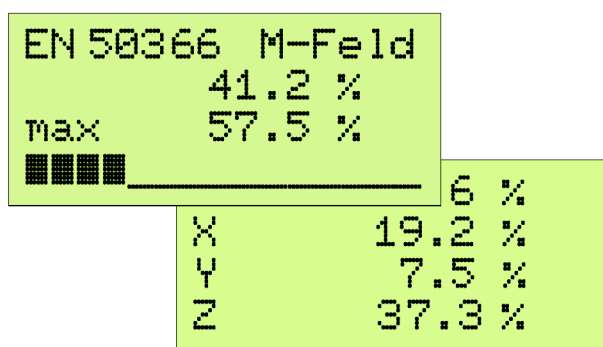
Sensor ENB

of 10 Hz to 400 kHz are recorded and evaluated by means of a filter according to the standard. This transfer function renders knowledge of the signal form or the formerly applied FFT analysis superfluous.

The separation of probe and display enables a particularly simple and ergonomic handling, while additionally available probe slots on the UMS4 enable a simultaneous recording of up to twelve further measurable quantities. In that way, the room temperature or the air humidity can be additionally documented, for example, in the framework of an EMC measurement.

Multifunctional display

The 4-line LC display is particularly convenient: the ratio of total flux density to the admissible limit value is directly displayed as value in percent, while the simultaneous display of the X, Y and Z components facilitate the identification of the magnetic lines of force in space. Further guidance is provided by the display of an analog bar as well as of the maximum value, minimum value and mean value, while the integrated FFT analysis visualises the frequency spectrum in a range of up to 20 kHz.



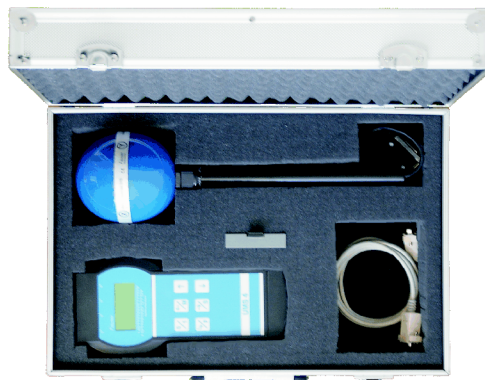
Furthermore, a PC monitor can be used as a second, large-format display via the serial interface of the UMS4.

Additional functions

The threshold value for an acoustic alarm can be adjusted individually so that the different coupling coefficients of different device types can be taken into consideration.

The integrated data logger of UMS4 enables you to record the magnetic field exposition over time, for example during the heating-up phase of a device, and to document it via a PC.

The analog output enables an external analysis of the signal form by means of an oscilloscope or a spectrum analyser.



EN 62233 measuring case

Technical data probe ENB

Probe	3 coils 100 cm ²
Measuring ranges	0..200 % 0..2000 %
Resolution	0,1 % 1 %
Frequency range	10 Hz..400 kHz
Freq. transfer function	according to EN 62233
Precision	< 5% [50Hz] ±3 dB
Display	percent of limit value according to EN 62233
Display functions	X, Y, Z components, min-, mean-, max. value, analog bar
Current input	approx. 40 mA
Dimensions	120x120x380 mm
Weight	330 g
Operating temperature	0..+50 °C
Subject to technical alterations.	

Ordering information

Measuring system UMS4	Item No. 0010
Probe ENB	Item No. 1080
EN 62233 measuring case	Item No. 2400