

### Description

This special longitudinal probe version measures one component of the magnetic field vector. The field is measured via a **derivative magnetometer**. The electrical signal is converted into optic signal which is then converted again into an electric signal by the eoSense opto-electronic converter. This low band sensor allows accurate measurements under harsh conditions.

Each eoProbe is delivered with a routine test report valid for 2 years.  
This probe must be used with the eoSense opto-electronic converter.

### Main usage precautions

The probe and its fibre optic must not be submitted to mechanical constraints or shocks.  
The eoProbe must be handle with care and stored inside its provided suitcase.

### Applications

H-field measurement in/for:

- High magnetic field
- CW or pulsed current

### Main features

- Vector near & far H-field measurement
- Non-perturbative (no magnetic part)
- Withstand up to 10MA/m
- Low Band
- Very compact design
- Fully insulated sensor

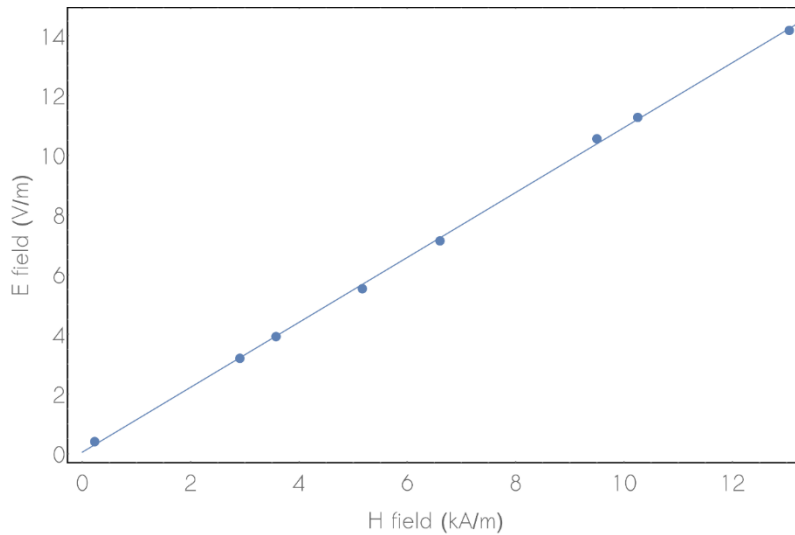
### Main specifications \*

Bandwidth	40 Hz ... > 50 kHz
Sensitivity	1 kA/m (with a bandwidth of analysis of 50 KHz) Max duration of pulse is 10 msec
Dynamic of measurement	$\geq 130 \text{ dB} \cdot \sqrt{\text{Hz}}$
Selectivity	$\geq 50 \text{ dB}$
Spatial resolution	$\leq 20 \text{ mm}$
Operating temperature	0 ... +50 °C (32 ... 122 °F)
Operating pressure	500 ... 2030 hPa (7.3 ... 29.4 PSI)
Max measurable H-field	5 MA/m
Max H-field without damage	10 MA/m
Max E-field without damage	10 MV/m
Ingress protection rating	IP 67 (sensor only)

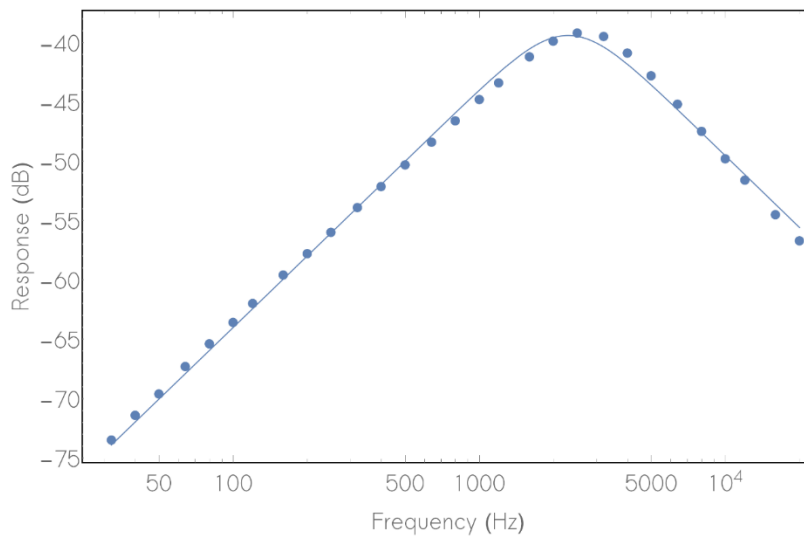
\*Values are valid under certain conditions

## Typical measurement results\*

### Linearity curve

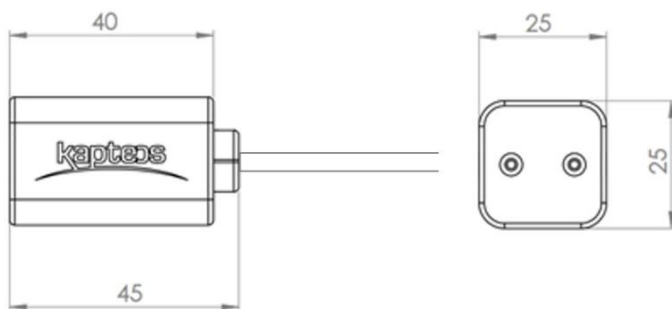


### Frequency curve



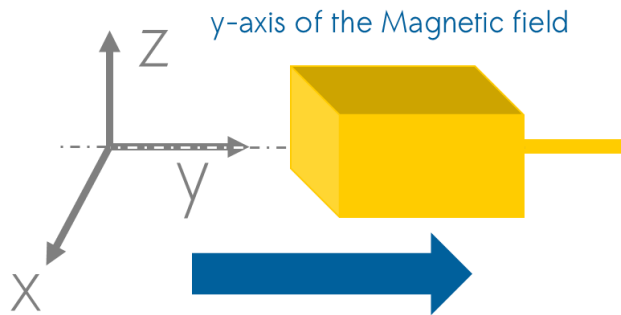
### eoProbe dimensions

Fibre optic protection diameter	3.2 mm
Fibre optic minimum bend radius	40 mm
Length of optic fiber	5 meters



## Type concept

This eoProbe measures the concerned H-field vector when it is in the axis of the eoProbe. A mark indicated on the probe shows the direction and the sense of the H-field to be measured.



## Accessories

### Fibre optic extension

The fibre optic extension is inserted between the eoSense opto-electronic converter and an eoProbe sensor to increase the distance up to a maximum of 100 meters. The length is set with steps of 5 meters, from 5 to 95 meters. Each end of the fibre optic is connected with a ruggedized UTS-LC connector.

The sensibility of the eoProbe may be reduced between 10 to 15% at the most.



Reference: EOP-EXT

## Services

### Calibration

New calibration of eoProbe (with its eoSense opto-electronic converter) is requested to be performed at Kapteos every 2 years.

### Rental

No rental.

### Repair

Repair of probe may be possible only after confirmation by Kapteos. The repair involves the return of the probe.

## Contact us

Kapteos SAS  
Bâtiment CleanSpace  
354 voie Magellan  
73800 Sainte-Hélène du Lac  
France

[contact@kapteos.com](mailto:contact@kapteos.com)

Tel: +33 (0)4 79 62 88 34

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