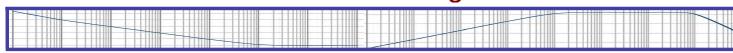


# **LEMI Sensors:**

**Innovating Solutions** 

### Induction coil magnetometer LEMI-145



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## LEMI-145 magnetometer 0.04 – 10,000 Hz frequency range

#### **Product description**

- Extremely low noise and wide frequency range LEMI-145 is the perfect choice for an assortment of geophysical applications, particular when AMT AND lower frequencies are required.
- A state of the art modulator-demodulator, a preamplifier with low power consumption, and differential output ensures that the sensor can be used with any acquisition station provided that the distance is less than 200 meters.
- Waterproof and rugged, the LEMI-145 is ready for use right after switching on.



Figure 1: LEMI-145 induction coil magnetometer.



#### **KMS Technologies**

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### **Product applications**

LEMI-145 induction coil magnetometers are used for measurements of magnetic field variations in the frequency range from 0.04 Hz to 10,000 Hz. Their wide bandwidth and low noise make them the ideal sensor for (audio) magnetotelluric measurements.

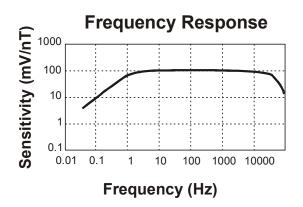
#### Highlights:

- Lowest noise in class
- Wide range of power supply voltage +/-6 V to +/-15 V
- Low power consumption. More than twice the battery life of other commercial coils.
- Wide bandwidth 0.04 to 10,000 Hz
- Lightweight 4.0 kg

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### **Product specifications**

Frequency range:	0.04 to 10,000 Hz
Noise level	
@ 1 Hz	≤. 1.6 pT / √Hz
@ 1,000 Hz	≤ 0.002 pT / √Hz
@ 10,000 Hz	≤ 0.001 pT / √Hz
Output sensitivity:	
Transformation factor @ 0.04-1 Hz	100*frequency mV/nT
Transformation factor @ 1-10,000 Hz	100 mV/nT
Power consumption @ 9 V	112.5 mW
Supply voltage	+/- 6 V to +/-15 V
Connector	Standard 8 pin MS3112E12-8S
Operating temperature range	-10° to 50° C
Construction material	Waterproof fiberglass housing
Length	1340 mm
Diameter	65 mm
Weight	4.0 kg



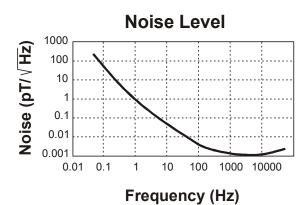


Figure 2: Typical noise spectral density.

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