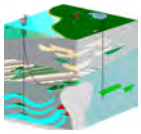
KMS Technologies
Innovating Solutions

LEMI-152:

SUPER-BROAD BAND Induction coil

LEMI-152 magnetometer 0.00025 – 10 000 Hz frequency range



Product description

- Extremely low noise and wide frequency range LEMI-152 is the perfect choice for an assortment of geophysical applications (MT, CSEM etc).
- The broadband design allows you to record the high and low frequency band saving setup time and equipment cost.
- A state of the art 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 30 meters.
- Waterproof and rugged, the LEMI-152 is ready for use right after switching on.
- Coil sequencing is handled by the acquisition system.
- Calibration windings for auto calibration is provided.

Figure 1: LEMI-152 induction coil magnetometer.

Product applications

LEMI-152 induction coil magnetometers are used for measurements of magnetic field variations in the frequency range from 0.001 Hz to 10 000 Hz. Their super- wide bandwidth and low noise make them the ideal sensor for 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. For KMS/LEMI instruments power is supplied from acquisition unit.
- Super-wide bandwidth 0.00025 to 10 000 Hz
- Lightweight < 4 kg

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Product specifications

Frequency range:	0.00025 to 10 000 Hz
Noise level **@ 0.01 Hz** **@ 0.1 Hz** **@ 1 Hz** **@ 100 Hz** **@ 10000 Hz**	 ≤ 75 pT / √Hz ≤ 7 pT / √Hz ≤. 0.3 pT / √Hz ≤ 0.005 pT / √Hz ≤ 0.003 pT / √Hz
Output sensitivity: **Transformation factor @ 0.001-1 Hz** **Transformation factor @ 1-10 000 Hz**	 100*f mV/nT 100 mV/nT
3 dB points of frequency band	1 Hz, 10000 Hz
Power consumption @ 9 V	<225 mW
Supply voltage	+/- 6 V to +/-15 V
Connector	Standard 8 pin MS3112E12-8S
Operating temperature range	-10° to 55° C
Construction material	Waterproof fiberglass housing
Length, weight	1340 mm, < 4 kg

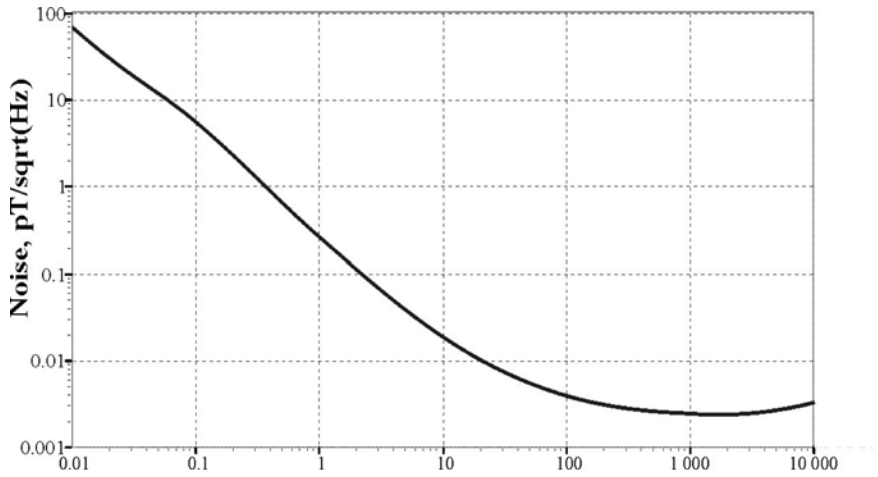

Figure 2: Typical noise spectral density.

www.LEMIsensors.com

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