



LEMI-153

INDUCTION MAGNETOMETER LEMI-153

Main features:

- High resolution and accuracy
- Low noise
- Low power consumption
- Magnetic sensor with leveling facilities
- Waterproof plastic case

Main applications

- Vector magnetic measurements in field conditions



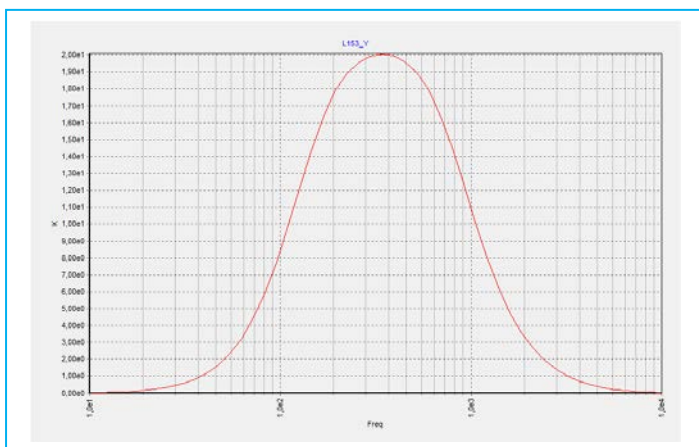
The induction coil magnetometer **LEMI-153** is intended to be used for the study of 3 components of magnetic field fluctuations in land conditions in frequency range 100 Hz – 1000 Hz with central frequency ~ 433 Hz. It can be used autonomously with any analog registration unit.

Very low power consumption allows for long period measurements at remote sites. A rugged and waterproof housing combined with a waterproof output connector prolong

the sensor's active lifetime and ensure overall reliability.

The circuit design and magnetometer construction use several industry specific procedures as well as new technological processes that provide the best possible combination of metrological and operational parameters. Each individual **LEMI-153** magnetometer is experimentally tested and certified.

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| Full frequency band of received signals by 3 dB level | 150 - 800 Hz |
| Transformation factor at differential output | 40 mV/nT |
| Transformation factor error | < 1 dB |
| Magnetic noise level at 433 Hz | $\leq 0.4 \text{ pT}/\sqrt{\text{Hz}}$ |
| Allowed length of connecting cable | $\leq 200 \text{ m}$ |
| Power supply voltage (upper limit recommended) | $\pm (10 \dots 12) \text{ V}$ |
| Maximum output voltage | $\pm 9 \text{ V}$ |
| Current consumption (nominal) | $\pm 21 \text{ mA}$ |
| Temperature range of operation | minus 20 ... + 50 °C |
| Outer dimensions | l = 148 mm d = 78 mm |
| Design | Rugged and waterproof |
| Weight | ~ 400 g |



The typical shape of the LEMI-153 magnetometer transfer function in the frequency range from 10 Hz till 10 kHz

Typical magnetic noise level shape of the LEMI-153 magnetometer.

