

LOW NOISE MINIATURE FLUX-GATE MAGNETOMETER LEMI-019

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Main features:

- Super low noise
- Very low power consumption
- Two analog outputs - filtered and unfiltered
- Low weight
- Waterproof construction



Miniature one-component flux-gate magnetometer LEMI-019 is intended for the measurement of one component of the magnetic field vector in land conditions. The instrument has two outputs: low-sensitivity unfiltered output for rough estimation of magnetic field intensity and high-sensitivity filtered output for measuring of its weak fluctuation in the frequency band 0.02- 5 Hz. Its peculiarities are low noise together with very low power consumption.

TECHNICAL SPECIFICATIONS

Measurement range: at the unfiltered output at the filtered output	$\pm 60000 \text{ nT}$ $\pm 15 \text{ nT}$
Frequency band of received signals: at the unfiltered output at the filtered output	DC - 15 Hz 0.02 - 5 Hz
Transformation coefficient value: at the unfiltered output at the filtered output	0.05 mV/nT 270 mV/nT
Transformation coefficient error (both outputs)	$\pm 5 \%$
Magnetic noise level at 1.0 Hz	$\leq 15 \text{ pT}/\sqrt{\text{Hz}}$
Noise rejection at 50 Hz (only at the filtered output)	$\geq 60 \text{ dB}$
Power supply voltage	$\pm (3.6 \pm 0.2) \text{ V}$
Power consumption	$\leq 40 \text{ mW}$
Temperature range of operation	$0 \frac{1}{4} + 70^\circ \text{C}$
Dimensions: sensor electronics box	$l = 80 \text{ mm}, d = 20 \text{ mm}$ $105 \times 22 \times 45 \text{ mm}^3$
Weight	$\leq 0.2 \text{ kg}$