



FLUX-GATE MAGNETOMETER LEMI-035

Main features:

- High resolution and precision
- Low noise
- Low temperature offset
- Convenience of installation and service
- Low power consumption
- Analog and digital outputs
- Magnetic and temperature channels
- 3 years operational guarantee



LEMI-035 autonomous flux-gate magnetometer for 3-component measurement of Earth's magnetic field and its variations at laboratory as well as in geomagnetic observatory is produced on the base of flux-gate sensor, all three components of which are implemented in the same body. It consists of two units - sensor unit with adjustable support and electronic unit both connected by long cable. The electronics is implemented as "black box" unit with digital and analog output which may be connected to any analog registration unit. Low power consumption of the magnetometer requires small buffer battery what is convenient for long-term autonomous measurements in field conditions, where power breaks often occur.

MAIN TECHNICAL PARAMETERS

Measurement range	± 70000 nT
Magnetic field variation range (w/o additional compensation)	± 1000 nT
Analog output sensitivity	5 mV/nT
Analog output range	± 4.8 V
Frequency band, 4 th order Butterworth low-pass filter	0...20 Hz
Magnetometer own noise density at frequency 1 Hz	< 10 pT
Magnetic sensor components orthogonality error	< 30 min of arc
Temperature drift	< 0.5 nT/°C
Operating temperature range	minus 20 to + 60°C
Power supply (external battery voltage)	9...18 V
Power consumption	< 0.7 W
Thermometer measurement range	minus 100...+100°C
Thermometer resolution	0.01°C
Thermometer basic measurement error	0.5%
Transformation factor	50 mV/°C
Format of data at the digital output (RS-232)	ASCII
Baud rate	115200 baud
Stop bit – 1, Parity bit - None	
Data/power cable length	1.8 m
Analog outputs cable length	1.8 m
Flux-gate sensor cable length	10 m
Dimensions	
electronic unit	210x140x60mm
observatory sensor	Ø210 x 160 mm
Weight	
electronic unit	0.5 kg
observatory sensor	3.3 kg