3-COMPONENT AUTONOMOUS VECTOR MAGNETOMETER LEMI - 301 FOR SEAFLOOR APPLICATION

Main features:

- **High resolution**
- **Low noise**
- **Low temperature offset**
- **Tilt angles measurement**
- **Full automatic compensation**
- **Blue Tooth interface**
- **Timing by internal clock**
- **Internal flash memory**
- **Convenience of installation and service**
- **The specifications can be changed at customer's request.**

LEMI -301 vector magnetometer is produced on the base of flux gate sensor, all three components of which are assembled in one body. Non-magnetic housing and minimal magnetism of components enable the instrument to be implemented as a monoblock construction where the electronic unit is placed close to the sensor. Automatic compensator provides convenient compensation of the initial magnetic field offset and reading of full value of the measured field. Timing by internal clock provides high accuracy synchronization of data. The internal flash memory can provide long-term autonomous data storage. The device has also two-axes tilt measurement. Using the developed software, it allows reducing the magnetometer data collected in randomly oriented coordinate system to the data in the geomagnetic coordinates.

TECHNICAL SPECIFICATIONS

Resolution:	**0.01 nT**
Full measuring range:	**±68000 nT**
Band pass:	**DC-0.3 Hz**
Noise level in the frequency 0.5 Hz, rms:	**< 10 pT**
Sample interval of data storage:	**1 s**
Sensor orthogonality error:	**< 30 min of arc (< 2 min with corr.)**
Temperature drift:	**<0.2 nT/°C**
Maximal operation depth:	**5000 m depending on housing type**
Operating temperature range:	**-5 …+50 °C**
Power consumption:	**0.5 W**
Autonomy, max	**30 days**
Tiltmeter characteristic:	
Resolution:	**0.01 degree**
Dynamic range:	**± 15 degree**

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