

# 3-COMPONENTS AUTONOMOUS VECTOR MAGNETOMETER LEMI-301 FOR SEAFLOOR APPLICATION

エクスカリバー株式会社  
 www.exjp.co.jp  
 Email:support@exjp.co.jp  
 TEL:03-6215-8506  
 FAX:03-6215-8700

## Main features:

- High resolution
- Low noise
- Low temperature offset
- Tilt angles measurement
- Full automatic compensation
- RS - 232 output
- Timing by internal clock
- Internal flash memory
- Convenience of installation and service



LEMI -301 vector magnetometer is produced on the base of fluxgate sensor, all three components of which are implemented into 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 field offset and reading of full value (6 digits) of the measured field. Timing by internal clock provides high accuracy synchronisation of data. The internal flash memory can provide long-term autonomous data storage. The system also has two-axes tilt measurement. Using the developed software it allows to reduce the magnetometer data collected in randomly oriented coordinate system to the data in the frame system connected with geomagnetic coordinates.

## Technical Specifications

<b>Resolution</b>	0.1 nT
<b>Full measuring range</b>	± 65000 nT
<b>Bandpass</b>	DC-0.3 Hz
<b>Noise level in the frequency band 0.1 - 1 Hz, rms</b>	<20 pT
<b>Sample interval of data storage</b>	1,5,10,60 s
<b>Sensor orthogonality error</b>	<30 min of arc
<b>Temperature drift</b>	<0.2 nT/° C
<b>Maximal operation depth</b>	200 m
<b>Operating temperature range</b>	0 ... 40 ° C
<b>Power consumption</b>	less 1.5 VA
<b>Weight:</b> waterproof housing electronic unit with sensor	10 kg 1 kg
<b>Tiltmeter characteristic:</b> <b>Resolution</b> <b>Dynamic range</b>	0.3 grad ± 30 grad