



## **CS-3 CESIUM MAGNETOMETER**

High Resolution Magnetics

# CS-3 SPECIFICATIONS

Operating Principal:	Self-oscillation split-beam Cesium Vapor (non-radioactive Cs-133)
Operating Range:	15,000 to 105,000 nT
Gradient Tolerance:	40,000 nT/metre
Operating Zones:	10° to 85° and 95° to 170°
Hemisphere Switching:	a) Automatic b) Electronic control actuated by the control voltage levels (TTL/CMOS) c) Manual
Sensitivity:	0.0006 nT $\sqrt{\text{Hz}}$ rms.
Noise Envelope:	Typically 0.002 nT P-P, 0.1 to 1 Hz bandwidth
Heading Error:	+/- 0.25 nT (inside the optical axis to the field direction angle range 15° to 75° and 105° to 165°)
Absolute Accuracy:	<2.5 nT throughout range
Output:	a) continuous signal at the Larmor frequency which is proportional to the magnetic field (proportionality constant 3.49857 Hz/nT) sine wave signal amplitude modulated on the power supply voltage b) square wave signal at the I/O connector, TTL/CMOS compatible
Information Bandwidth:	Only limited by the magnetometer processor used
Sensor Head:	Diameter: 63 mm (2.5") Length: 160 mm (6.3") Weight: 1.15 kg (2.6 lb)
Sensor Electronics:	Diameter: 63 mm (2.5") Length: 350 mm (13.8") Weight: 1.5 kg (3.3 lb)
Cable, Sensor to Sensor Electronics:	3m (9' 8"), lengths up to 5m (16' 4") available
Operating Temperature:	-40°C to +50°C
Humidity:	Up to 100%, splash proof
Supply Power:	24 to 35 Volts DC
Supply Current:	Approx. 1.5A at start up, decreasing to 0.5A at 20°C
Power Up Time:	Less than 15 minutes at -30°C

## OPTIONS

Options:	Your CS-2 sensor can be upgraded to a CS-3, just call for details.
Processors:	Options may be quoted upon request.
Systems:	We can provide you with suggestions for all your ancillary requirements regardless of the installation.
Software:	Software processing, interpretation and presentation offered upon request.
Training:	Training programs may be provided either at our office or at your location to meet your requirements.

An ISO 9001:2000 registered company

\* All specifications are subject to change without notice.

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