

MAGNETIC METHODS



CS-VL CESIUM MAGNETOMETER

High Resolution Magnetics

CS-VL SPECIFICATIONS

Sensor: Self-oscillation split-beam Cesium Vapor (non-radioactive Cs-133)

Operating Range: 15,000 to 105,000 nT Gradient Tolerance: 40,000 nT/meter

Operating Zones: 15° to 75° and 105° to 165°

Hemisphere Switching: a) Automatic

b) Manual (internal switch)

Sensitivity: 0.0006 nT $\sqrt{\text{Hz}}$ rms.

Noise Envelope: Typically 0.002 nT P-P, 0.1 Hz bandwidth

Heading Error: \pm 0.2 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 Larmor signal at the SMC connector, TTL/CMOS compatible

Information Bandwidth: Only limited by the magnetometer processor used

Sensor Head: Diameter: 50mm (2.0")

Length: 132 mm (5.2") Weight: 400g (0.9 lb)

Sensor Electronics: Dimension: H 3.8cm (1.5") x W 5cm (2") x L 25cm (9.75")

Weight:280g (0.62 lb)

Cable: Diameter: 10 mm to 12 mm

Length: 0.5m to 3m

Total CS-VL Weight

With 3m (118") Cable (Standard): 890g (1.96 lb)
With 1m (40") Cable (Optional): 780g (1.7 lb)
Operating Temperature: -40°C to +50°C

Humidity: Up to 90%, splash proof Supply Power: 24 to 35 Volts DC

Supply Current: Approx. 1A at start up, decreasing to 0.5A at 20°C

Power Up Time: Less than 5 minutes at 20°C Less than 15 minutes at -30°C

OPTIONS

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 program may be provided either at our office or at your location to

meet your requirements

An ISO 9001:2008 registered company

All specifications are subject to change without notice

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