

CS-2 MAGNETOMETER SENSORS

SPECIFICATIONS:

MANUFACTURER:	Scintrex
Measurement Range:	15,000nT to 100,000nT
	Orientation Range:
Northern Oper. Hemisphere:	Sensor head optical axis 10 to 85 to the ambient field direction
Southern Oper. Hemisphere:	Sensor head optical axis 170 to 95 to the ambient field direction
Dead Zones:	tops operating within +/-10 of the magnetic poles, and +/-5 of the magnetic equator
Heading Error:	+/-0.25nT inside the optical axis to the field direction angle range 20 to 70 and 110 to 160
Noise Envelope:	0.002nT pk-pk in 0.01-1Hz bandwidth
Gradient Tolerance:	40,000 nT/meter
Outputs:	Continuous signals at the Larmor frequency which is proportional to the magnetic field (proportionality constant 3.498577Hz/n T)

a) squarewave signal at the I/O connector, TTL/CMOS compatible,

b) sinewave signal amplitude modulated on the power supply voltage

Information Bandwidth:	Limited by the magnetometer processor used
Operating Temperature:	-40 to +50 C
Humidity:	Up to 100%, splashproof
Supply Voltage:	27-35 Volts DC
Supply Current:	Approx. 1.5A at start-up, decreasing to 0.5A at 20 C, larger at lower temperatures
Power Consumption:	15W at 20 C, more at lower temperatures or during warmup
Warmup Time:	Approx. 15 min at -40 C

Control of the Operating Hemisphere: *Three modes of operation available;*

a) Manual switch control

b) Electronic control actuated by remotely amplitude modulating the supply voltage at 80Hz, 50mV peak

*c) Electronic control actuated by control voltage level (TIL/CMOS) at the I/O connector
Sensor Head to Electronics Inter- connecting Cable Standard length 3m, optional 1-10m,
with connector at the sensor electronics side
Signature of Electronics Less than 0.1 nT in any
orientation at 3m away from the sensor head*

Sensor Head:

Size: Diameter: 63mm (2.5") Length: 160mm (6.3")

Weight: 1.15 kg (2.6 lb)

Sensor electronics:

Size: Diameter: 63 mm (2.5")

Length: 350 mm (13.8")

Weight: 1.5 kg (3.3 lb)