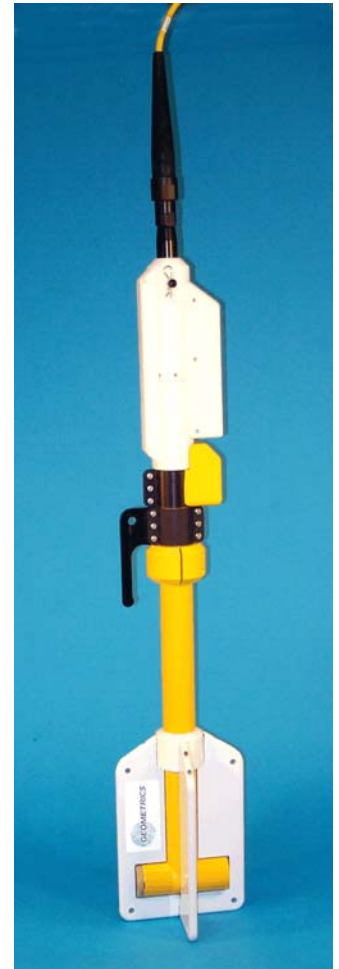


# G-882 MARINE MAGNETOMETER

- **CESIUM VAPOR HIGH PERFORMANCE** – Highest detection range and probability of detecting all sized ferrous targets
- **NEW STREAMLINED DESIGN FOR TOW SAFETY** – Low probability of fouling in lines or rocks
- **NEW QUICK CONVERSION FROM NOSE TOW TO CG TOW** – Simply remove a stainless steel locking pin, move tow point and reinsert. New easy carry handle built in!
- **NEW INTERNAL CM-221 COUNTER MODULE** – Provides Flash Ram for storage of default parameters set by user
- **NEW ECHOSOUNDER / ALTIMETER OPTION**
- **NEW DEPTH RATING** – 4,000 psi !
- **HIGHEST SENSITIVITY IN THE INDUSTRY** – 0.004 nT/Hz RMS with the internal CM-221 Mini-Counter
- **EASY PORTABILITY & HANDLING** – no winch required- single man operation, 44 lbs with 200 ft cable (without weights or depressor wing)
- **COMBINE TWO SYSTEMS FOR INCREASED COVERAGE** – Internal CM-221 Mini-Counter provides multi-sensor data concatenation allowing side by side coverage which maximizes detection of small targets and reduces noise



**G-882 with Weight Collar Depth Option**

Very high resolution Cesium Vapor performance is now available has been incorporated into a low cost, small size system for professional surveys in shallow or deep water. High sensitivity and sample rates of total field measurements are maintained for all applications. The well proven Cesium sensor is combined with a unique new CM-221 Larmor counter and ruggedly packaged for small or large boat operation. Use your computer and standard printer with our MagLog Lite™ software to log, display and print GPS position and magnetic field data. Model G-882 is the lowest priced - highest performance fully operational marine mag system ever offered.

The G-882 is flexible for operation in small boat, shallow water surveys as well as deep tow applications (4,000 psi rating, telemetry over steel coax available to 10Km). Being small and lightweight (44 lbs net, no weights) it is easily deployed and operated by one man. But add several no-foul weight collars and the system can quickly weigh in at more than 100 lbs. Power may be supplied from a 24 to 30 VDC battery supply or the included 110/220 VAC power supply. The tow cable uses high strength

Kevlar and it's length is standard at 200 ft (61 m) with optional cable up to 500m (no telemetry). The shipboard end of the tow cable is attached to a junction box or on-board cable for quick and simple hookup to power and output of data into any IBM PC computer. A rugged fiber-wound fiberglass housing provides selectable orientation of the sensor and therefore maintains operations throughout the world with only small limitations as to direction of survey in equatorial regions.

The G-882 Cesium magnetometer provides the same operating sensitivity and sample rates as the larger deep tow model G-880. MagLogLite™ Logging Software is offered with each magnetometer and allows recording and display of data and position with Automatic Anomaly Detection! Additional options include: MagMap2000 plotting and contouring software and post acquisition processing software MagPick™ (free from our website.)

The G-882 system is particularly well suited for the detection and mapping of all sizes of ferrous objects. This includes anchors, chains, cables, pipelines, ballast stone and other scattered shipwreck debris, munitions of all sizes, aircraft, engines and any other object with magnetic expression. Objects as small as a 5 inch screwdriver are readily detected provided that the sensor is close to the seafloor and within practical detection range. (Refer to table at right).

The design of this special marine unit is directed toward the largest number of user needs. It is not intended to meet all marine requirements such as deep tow through long cables or monitoring fish altitude. Rugged design with highest performance at lowest cost are the goals.

#### Typical Detection Range For Common Objects

Ship 1000 tons	0.5 to 1 nT at 800 ft (244 m)
Anchor 20 tons	0.8 to 1.25 nT at 400 ft (120 m)
Automobile	1 to 2 nT at 100 ft (30 m)
Light Aircraft	0.5 to 2 nT at 40 ft (12 m)
Pipeline (12 inch)	1 to 2 nT at 200 ft (60 m)
Pipeline (6 inch)	1 to 2 nT at 100 ft (30 m)
100 KG of iron	1 to 2 nT at 50 ft (15 m)
100 lbs of iron	0.5 to 1 nT at 30 ft (9 m)
10 lbs of iron	0.5 to 1 nT at 20 ft (6 m)
1 lb of iron	0.5 to 1 nT at 10 ft (3 m)
Screwdriver 5 inch	0.5 to 2 nT at 12 ft (4 m)
1000 lb bomb	1 to 5 nT at 100 ft (30 m)
500 lb bomb	0.5 to 5 nT at 50 ft (16 m)
Grenade	0.5 to 2 nT at 10 ft (3 m)
20 mm shell	0.5 to 2 nT at 5 ft (1.8 m)

## MODEL G-882 CESIUM MARINE MAGNETOMETER SYSTEM SPECIFICATIONS

<b>OPERATING PRINCIPLE:</b>	Self-oscillating split-beam Cesium Vapor (non-radioactive)
<b>OPERATING RANGE:</b>	20,000 to 100,000 nT
<b>OPERATING ZONES:</b>	The earth's field vector should be at an angle greater than 6° from the sensor's equator and greater than 6° away from the sensor's long axis. Automatic hemisphere switching.
<b>CM-221 COUNTER SENSITIVITY:</b>	<0.004 nT/√Hz rms. Typically 0.02 nT P-P at a 0.1 second sample rate or 0.002 nT at 1 second sample rate. Up to 10 samples per second
<b>HEADING ERROR:</b>	±1 nT (over entire 360° spin and tumble)
<b>ABSOLUTE ACCURACY:</b>	<3 nT throughout range
<b>OUTPUT:</b>	RS-232 at 9600 Baud
<b>MECHANICAL:</b>	
Sensor Fish:	Body 2.75 in. (7 cm) dia., 4.5 ft (1.37 m) long with fin assembly (11 in. cross width), 40 lbs. (18 kg) Includes Sensor and Electronics and 1 main weight. Additional collar weights are 14lbs (6.4kg) each, total of 5 capable
Tow Cable:	Kevlar Reinforced multiconductor tow cable. Breaking strength 3,600 lbs, 0.48 in OD, 200 ft maximum. Weighs 17 lbs (7.7 kg) with terminations.
<b>OPERATING TEMPERATURE:</b>	-30°F to +122°F (-35°C to +50°C)
<b>STORAGE TEMPERATURE:</b>	-48°F to +158°F (-45°C to +70°C)
<b>ALTITUDE:</b>	Up to 30,000 ft (9,000 m)
<b>WATER TIGHT:</b>	O-Ring sealed for up to 9000 ft (2750 m) depth operation
<b>POWER:</b>	24 to 32 VDC, 0.75 amp at turn-on and 0.5 amp thereafter
<b>ACCESSORIES:</b>	
Standard:	CM-201 View Utility Software operation manual and ship case
<b>Optional:</b>	
MagLog Lite™ Software:	Telemetry to 10Km coax, gradiometer (longitudinal or transverse) Logs, displays and prints Mag and GPS data at 10 Hz sample rate. Automatic anomaly detection and single sheet Windows printer support

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

4/03

**GEOMETRICS, INC.** 2190 Fortune Drive, San Jose, California 95131  
408-954-0522 • Fax 408-954-0902 • Internet: sales@mail.geometrics.com

**GEOMETRICS Europe** Manor Farm Cottage, Galley Lane, Great Brickhill, Bucks,  
England MK179AB • 44-1525-261874 • Fax 44-1525-261867

**GEOMETRICS China** Laurel Industrial Co. Inc. - Beijing Office, Room 2509-2511, Full Link Plaza  
Chaoyangmenwai Dajie, Chaoyang District, Beijing, China 100020 #18  
10-6588-1126 (1127..1130), 10-6588-1132 • Fax 010-6588-1162

