

# G-882

## Cesium marine magnetometer



Geometrics G-882 Marine Magnetometer is the leading marine system in the industry with over 1,000 systems sold! The G-882 is the only system that meets the standards for UXO clearance in the North Sea.

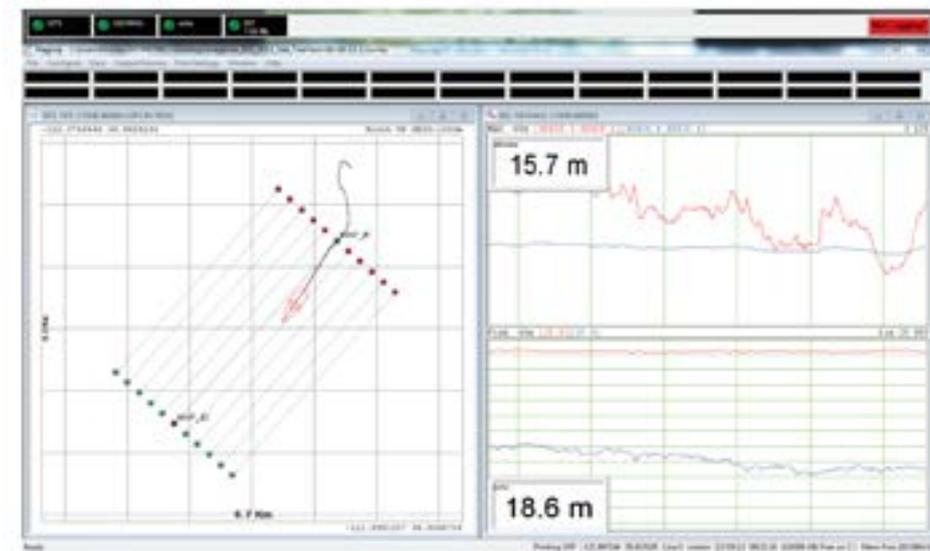
This very high-resolution Cesium vapor marine magnetometer is low in cost, small in size, and offers flexibility for professional surveys in shallow or deep water. Use your personal computer with our MagLog™ software to log, display and print GPS position and magnetic field data.

The system directly interfaces to all major side-scan manufacturers for tandem tow configurations. Being small and lightweight, it is easily deployed and operated by one person. But add several streamlined weight collars and the system can quickly weigh more than 100 lbs for deep-tow applications.

This marine magnetometer system is particularly well-suited for the detection and mapping of all sizes of ferrous objects. This includes anchors, chains, cables, pipelines, ballast stones and other scattered shipwreck debris, munitions of all sizes (UXO), aircraft, engines and any other object with a magnetic expression. The G-882 is also perfect for geological studies. Its high sensitivity and high sample rates are maintained for all applications. 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 on back).

### Specifications

<b>Product</b>	G-882
<b>Country of origin</b>	USA
<b>Manufacturer</b>	Geometrics
<b>Materials</b>	Carbon fiber painted



MagLogLite™ Data Logging software is included with each magnetometer and allows recording and display of data and position with automatic anomaly detection. Additional software options include: MagLog Pro™, advanced logging software; MagMap™, a plotting and contouring package; and MagPick™ post-acquisition processing software.

### Typical detection range for common objects

<b>1. Ship: 1000 tons</b>	0.5 to 1 nT at 800 ft (244 m)
<b>2. Anchor: 20 tons</b>	0.8 to 1.25 nT at 400 ft (120 m)
<b>3. Automobile</b>	1 to 2 nT at 100 ft (30 m)
<b>4. Light Aircraft</b>	0.5 to 2 nT at 40 ft (12 m)
<b>5. Pipeline (12 inch)</b>	1 to 2 nT at 200 ft (60 m)
<b>6. Pipeline (6 inch)</b>	1 to 2 nT at 100 ft (30 m)
<b>7. Iron: 100 kg</b>	1 to 2 nT at 50 ft (15 m)
<b>8. Iron: 100 lb</b>	0.5 to 1 nT at 30 ft (9 m)
<b>9. Iron: 10 lb</b>	0.5 to 1 nT at 20 ft (6 m)
<b>10. Iron: 1 lb</b>	0.5 to 1 nT at 10 ft (3 m)
<b>11. Screwdriver: 5-inch</b>	0.5 to 2 nT at 12 ft (4 m)
<b>12. Bomb: 1000 lb</b>	1 to 5 nT at 100 ft (30 m)
<b>13. Bomb: 500 lb</b>	0.5 to 5 nT at 50 ft (16 m)
<b>14. Grenade</b>	0.5 to 2 nT at 10 ft (3 m)
<b>15. . Shell: 20 mm</b>	0.5 to 2 nT at 5 ft (1.8 m)

## Magnetometer / electronics

<b>Operating principle</b>	Self-oscillating split-beam Cesium vapor (non-radioactive).
<b>Operating range:</b>	20,000 to 100,000 nT
<b>Noise</b>	<0.004 nT/ Hzrms. (SX (export) version: <0.02 nT/ Hzrms).
<b>Max sample rate:</b>	20 Hz.
<b>Heading error:</b>	< 1 nT (over entire 360° spin).
<b>Power</b>	24 to 32 VDC, 0.75 A at power-on and 0.5 A thereafter.
<b>Output</b>	RS-232 at 1,200 to 19,200 Baud.
<b>Operating zones:</b>	The earth's field vector should be at an angle greater than 10° from the sensor's equator and greater than 6° away from the sensor's long axis. Automatic hemisphere switching.

## Environmental

<b>Operating temperature</b>	-35°C to +50°C (-30°F to +122°F)
<b>Storage temperature</b>	-45°C to +70°C (-48°F to +158°F).
<b>Altitude</b>	9,000 m (30,000 ft).
<b>Depth</b>	4,000 psi (2,730 m; 8956 ft).
<b>Water tight:</b>	O-Ring sealed for up to 4,000 psi depth operation.

## Mechanical

<b>Sensor Fish</b>	DIA: 7 cm; L: 137 cm (2.75x54 in) (with fin assembly). Weight: 18 kg (40 lb) Includes sensor and electronics and 1 main weight. Additional collar weights are 6.4 kg (14 lb) each; total of 5 capable.
<b>Tow Cable</b>	DIA: 12 mm; L: 800 m (0.47 in x 2,625 ft). Weight: 7.7 kg (17 lb) with terminations. Break strength: 1,630 kg (3,600 lb) Bend diameter: 30 cm (12 in).

## Accessories

<b>Standard</b>	Operation manual, shipping/storage container, ship kit with tools and hardware, power supply, MagLogLite™, MagMap™ and MagPick™ processing software, depth transducer, altimeter.
<b>Optional</b>	Steel tow cable to 6,000 m (19,600 ft) with telemetry, longitudinal or transverse gradiometer, plastic Pelican® case, MagLogPro™, collar weights