

# Explorer

## Mini Marine Magnetometer



### 4.5 kgs, Soaking Wet

Explorer is the world's smallest and lightest high sensitivity magnetometer. It's ideal for inshore, shallow water work, or offshore towed behind Side Scans, AUVs and ROVs.

#### One Man Operation

4.5 kgs (9.9 lbs) for the mag  
6.9 kgs (15 lbs) for a 50m (164 ft) tow cable

#### High Sensitivity Without Export Restrictions

With 0.02 nT sensor sensitivity and 0.001 nT counter sensitivity  
**Explorer** maintains high sensitivity, without requiring an export permit.

#### Unmatched Absolute Accuracy

**Explorer** gives you consistent, repeatable data you can trust. At 0.1 nT it is orders of magnitude more accurate than all competing magnetometers.

#### 2W Ultra Low Power Consumption

**Explorer** can be powered by a single car battery for up to 200 hours.

#### Applications

- Inshore geophysical survey
- Archaeology
- Wreck detection
- Magnetic mapping of harbours
- Ferrous target detection in lakes, rivers and estuaries
- UXO
- Underwater Archaeology

## Survey in Any Direction, Anywhere in the World

There are no limitations with our omnidirectional Overhauser sensors – they don't have a dead zone.\*

That's why **Explorer** has a sleek design. You never have to rotate the sensor to try to minimize the dead zone, as you would with competing mags.

*\*A magnetometer dead zone refers to a specific orientation relative to magnetic North at which the sensor is unable to take readings.*

## No Heading Bias

No matter how our sensors are oriented, successive Survey Lines match up perfectly. You'll produce better quality magnetic maps and won't lose what you're looking for in mismatched Survey Lines. Heading bias is an offset in the mag data caused by changing direction with each survey line.

## No Sensor Warm Up Time

**Explorer** works instantly on power up, regardless of the water temperature.

## Maintenance-free Overhauser Sensors

Our sensors are omnidirectional, maintenance-free, and do not require realignment, or recalibration. Plus they don't contain any consumable parts, or toxic chemicals.

## System Consists of:

### Explorer Magnetometer Includes

- Overhauser sensor
- Electronics module with Larmour counter
- Leak detector
- Depth rating 1000m (1420 psi)

### Additional Components

- Power isolator
- 24V universal AC power supply or battery clip cable
- USB or RS-232 cable
- BOB data acquisition and visualization software
- Tow cable, length to be determined by customer
- Shipping case

## Specifications

### Performance

Operating Zones	Worldwide. <b>Explorer</b> collects accurate results regardless of how it's pointed in relation to Earth's magnetic field.
Absolute Accuracy	0.1 nT
Sensor Sensitivity	0.02 nT
Counter Sensitivity	0.001 nT
Resolution	0.001 nT
Dead Zone	NONE
Temperature Drift	NONE
Power Consumption	2 W
Range	18,000 nT to 120,000 nT
Gradient Tolerance	Over 10,000 nT/m
Sampling Range	4 Hz – 0.1 Hz
Communications	RS-232, 9600 bps
Power Supply	24 VDC (120-240 VAC compatible) (Acceptable range 9-30 VDC)

### Magnetometer

Length	86 cm (33.75 in)
Diameter	7.6 cm (3 in)
Weight in Air	4.5 kg (10 lbs)
Weight in Water	0.7 kg (1.5 lbs)

### Tow Cable

Conductors	Four + Shield
Maximum Length	200 m (7,800 ft)
Breaking Strength	2,500 kg (5,500 lbs)
Outer Diameter	1 cm (0.4 in)
Weight in Air	122 g/m (8 lb/100 ft)
Weight in Water	24 g/m (2 lb/100 ft)

*"Years of survey experience have taught me that both your Explorer and SeaSPY magnetometers are the best on the market today. In the harsh conditions associated with remote sensing surveys your magnetometers have never let me down, not once."*