



Magnetic Side Scan Detection System M-E01



M-E01 Magnetic Side Scan System is an integrated marine geophysical instrument for seabed topographic imaging and magnetic anomaly detection. It combines acoustic and magnetic sensing to identify targets and analyze properties, providing high-precision data for cable detection, wreck search, geological survey and underwater engineering.

Features:

Simultaneous acoustic and magnetic data collection; supports image-magnetic curve joint analysis. Sonar and magnetic sensor integrated in one towed body, reducing interference and attitude error. Signal isolation, magnetic shielding and differential acquisition minimize noise. Streamlined, low drag, low drift; built-in attitude sensor.

Magnetometer:

Principle: Self-oscillating cesium optical pumping

Measurement Range: 19,500 – 100,500 nT

Noise Level: < 0.01 nT

Maximum Sampling Rate: 50 Hz

Operating Area: Global

Heading Error: < 1 nT

Output: RS-232, baud rate 1200–19200

Power Supply: 24–32 V DC

Side Scan Sonar

Frequency: 600kHz

Signal Type: CW/LFM

Max Range (per side): 90m

Beam Width: Horizontal 0.3°, Vertical 50°

Resolution: Along-track 0.005h; across-track 1.25cm

Output: OTSS & XTF simultaneously

Power: 9–18V DC

Specification:

• **Dimensions:** Diameter 11cm; Length 170cm (assembled frame)

• **Weight:** 23kg (sensor, electronics and weight block)

Tow Cable Diameter: 13.5mm

Length options: 100m (20kg), 150m (30kg), 200m (40kg)

Breaking Strength: 1630kg

Minimum Bend Diameter: 30cm

Operating Environment:

Operating Temperature: -35°C to +50°C

Storage Temperature: -45°C to +70°C

Max Altitude: 9,000 m

Depth Rating: 300 m

Waterproofing: O-ring sealed, operational at depths up to 4,000 psi

