

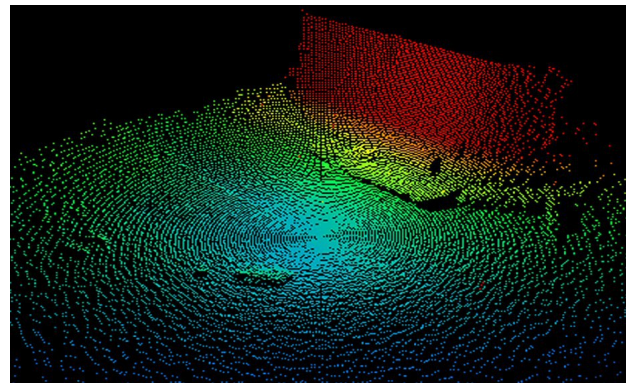
Scour Monitoring Sonar

Model 2001-SMS



The 3D Profiling Sonar Model 2001-SMS is designed to operate long term on fixed structures to gather high resolution bathymetry data. Manufactured in PEEK / Hard Anodised Aluminium or Stainless Steel or Titanium and only 90mm in diameter the unit can be installed on a Bridge Pier, Dam Wall or Offshore Windfarm. Multiple units can be linked together and controlled via Ethernet to enable large areas to be fully mapped. The windows software allows images to be merged to produce a single point cloud picture. Operation can be stand alone with built in data logging capacity in the sonar unit using a micro SD card with remote access via Ethernet / Internet / 4G mobile network.

- Bridge Pier Scour Monitoring
- Offshore Wind Turbine Scour monitoring
- Water Intake and Dam Inspection
- Designed for long-term deployment
- High resolution 3D data captured directly
- Range Frequency Dependent
- Ethernet / 4G
- On screen cursor measurement tools
- Windows operating system with multiple views
- Complete Off Grid Power Options
- Multiple Unit Installations
- Optional Sensors



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Specification

Acoustic

Operating Frequency	1MHz (see options)
Transducer Beamwidth	1.8° (+/- 3dB points conical)
Range Resolution	<1mm
Sample Rate	1us to 100us
Range Settings	0.5m to 20m in 0.1m steps
Transmit Pulse Length	10usec to 250usec
Swath Resolution	0.45° to 4.5° in 0.45° steps
Rotational Resolution	0.9° to 9° in 0.9° steps

Interface

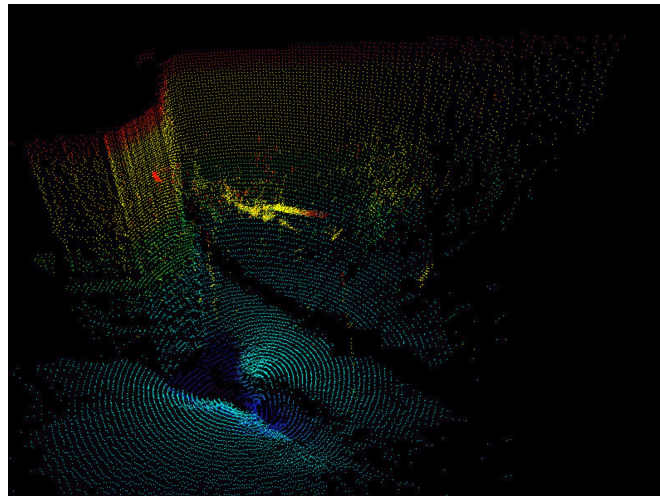
Power Consumption	10W Scanning 1mW Standby
Supply Voltage	12V DC
Communications	Ethernet
Connectors	8 way / 12 way Micro Subconn

Physical

Size	90mm diameter by 400mm long
Material	PEEK / Anodised Aluminium / Stainless Steel / Titanium
Depth Rating	100m
Weight in Air	3.5kg Aluminium
Weight in Water	1.5kg
Temperature Range	0 to +35° (operating) -10 to +60° (storage)

Options

Operating Frequencies 2MHz, 1MHz, 700KHz, 500KHz
or 250KHz
Pitch & Roll sensor
Pressure Sensor
Temperature Sensor
Conductivity Sensor
Cable Operated or WiFi / 4G
Offgrid Power Systems



Dam Inspection



Sonar Head, 4G / Battery Control Box,
Solar Panel



90mm Sonar Unit



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