

SONIC 2022

Multibeam Echo Sounder

Features:

- Ultra Compact
- Focused 1° Beam Width
- Selectable Frequencies 200-400kHz
- Selectable Swath Sector 10° to 160°
- System Range to 500m
- Embedded Processor/Controller
- Equiangular or Equidistant Beams
- Roll Stabilization
- Rotate Swath Sector

Applications:

- Hydrographic Survey
- Offshore Site Survey
- Pre & Post Dredge Survey
- Defense & Security
- Marine Research

System Description:

The Sonic 2022 is a compact wideband shallow water multibeam echo sounder, suitable for a wide variety of general mapping applications.

As with the higher resolution Sonic 2024 system, the Sonic 2022 provides over 20 selectable operating frequencies to choose from within the 200 to 400 kHz band, with unparalleled flexibility to trade off resolution and range and controlling interference from other active acoustic systems.

In addition to selectable operating frequencies, the Sonic 2024 provides variable swath coverage selections from 10° to 160° as well as ability to rotate the swath sector. Both the frequency and swath coverage may be selected 'on-the-fly', in real-time during survey operations.

The Sonar consists of the outboard projector and receiver modules, and the inboard Sonar Interface Module (SIM). Third party auxiliary sensors are connected to the SIM. The sonar data is tagged with GPS time.



The sonar operation is controlled from a graphical user interface on a PC or laptop which is typically equipped with navigation, data collection and storage applications software.

The operator sets the sonar parameters in the sonar control window, while depth, imagery and other sensor data are captured and displayed by the applications software.

Commands are transmitted through an Ethernet interface to the Sonar Interface Module. The Sonar Interface Module supplies power to the sonar heads, synchronizes multiple heads, time tags sensor data, and relays data to the applications workstation and commands to the sonar head.

The receiver head decodes the sonar commands, triggers the transmit pulse, receives, amplifies, beamforms, bottom detects, packages and transmits the data through the Sonar Interface Module via Ethernet to the control PC.

The compact size, low weight, low power consumption of 35W and elimination of separate topside processors make Sonic 2022 *very well suited* for small survey vessel or ROV/AUV operations.

Sonic 2022 Multi Beam Echo Sounder

Systems Specification:

Frequency	200kHz-400kHz
Beamwidth, across track	1.0°
Beamwidth, along track	1.0°
Number of beams	256
Swath sector	Up to 160°
Max Range setting	500m
Pulse Length	15µs-500µs
Pulse Type	Shaped CW
Ping Rate	Up to 60 Hz
Depth rating	100m
Operating Temperature	0°C to 50°C
Storage Temperature	-30°C to 55°C

Electrical Interface

Mains	90-260 VAC, 45-65Hz
Power consumption	35W
Uplink/Downlink:	10/100/1000Base-T Ethernet
Data interface	10/100/1000Base-T Ethernet
Sync In, Sync out	TTL
GPS	1PPS, RS-232
Auxiliary Sensors	RS-232
Deck cable length	15m

Mechanical:

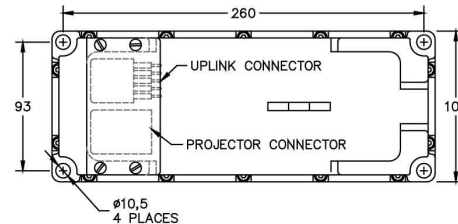
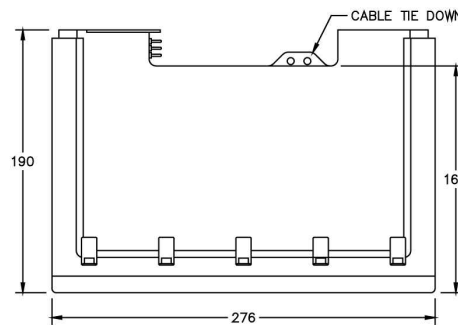
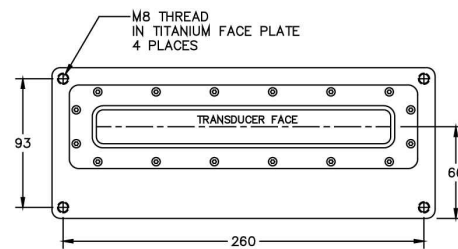
Receiver Dim (LWD)	276 x 109 x 190 mm
Receiver Mass	7 kg
Projector Dim (LWD)	273 x 108 x 86 mm
Projector Mass	3.3 kg
Sonar Interface Module Dim (LWH)	280 x 170 x 60 mm
Sonar Interface Module Mass	2.4 kg

Sonar Options:

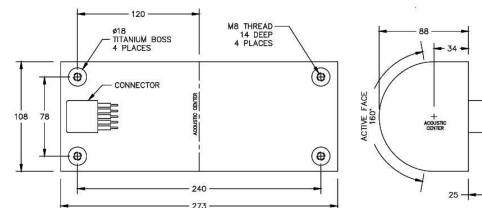
- Snippets Imagery Output
- Switchable Forward Looking Sonar Output
- Mounting Frame & Hardware
- Over-the-side Pole Mount
- Sound Velocity Probe & Profiler
- Extended Sonar Deck Cable, 25m or 50m
- 3000m Depth Immersion Depth



Sonar Interface Module



Sonic 2022 Receiver



Sonic 2022 Projector

High Resolution
Multibeam
Systems
for:

Hydrography

Offshore

Dredging

Defense

Research

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