WaterLinked
A NORBIT Company

Compact 3D real-time imaging

Redefine your perception of the underwater environment thanks to the Water Linked advanced acoustic imaging sonar.

The Sonar 3D-15 is at the forefront of underwater exploration, delivering a clear, three-dimensional acoustic image that penetrates even the murkiest of waters. This technology creates the ability for intuitive navigation, greatly enhancing the user's capability to maneuver around obstacles and pinpoint targets.

Shallow water, often characterized by low visibility and high turbidity, typically renders optical cameras ineffective. While traditional 2D sonars offer some improvement, they fall short in providing a comprehensive understanding of the surrounding environment.

The 3D shaded view simplifies navigation, and the digitized point cloud data is ideal for detailed inspections and creating intricate models of both targets and the underwater terrain. This enables autonomous systems to execute complex decision-making processes.

The Sonar 3D-15 sets itself apart with its compact and efficient design, boasting a 300 meter operational depth and less than 0.4 kilogram in-waterweight. Its small size makes it suitable for an extensive variety of ROVs, from the smallest to those of larger size, and empowering them with the ability to discern targets in challenging conditions.

Aligning with the Water Linked commitment for ease of use, the sonar's Graphical User Interface (GUI) is designed for accessibility through a web-based browser. This user-centric design eliminates the complexity of software installation simplifying the integration process.

A detailed Application Programming Interface (API) allows users to merge the sonar image with third-party software.

Key features

- 3D imaging sonar
- 15 m acoustic range
- 90 degree horizontal field of view
- 300 m depth rating
- Ethernet communication
- Web GUI and API



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Acoustic | performance

Mode	Low Frequency	High Frequency
Transducer frequency	1.2 MHz	2.4 MHz
Horizontal field of view	90° (±45°)	40° (±20°)
Vertical field of view	40° (±20°)	40° (±20°)
Maximum range	15 meters	4 meters
Minimum range	20 cm	20 cm
Range resolution	1.5 mm	1.5 mm
Beam separation	0.35° (horizontal) / 0.60° (vertical)	0.16° (horizontal) / 0.60° (vertical)
Angular resolution	0.85° (horizontal) / 1.60° (vertical)	0.45° (horizontal) / 0.85° (vertical)
Update rate	5 Hz	20 Hz

Electrical | interface

Input voltage	10-30 Vdc
Power (operational)	20 W (maximum 60W surge)
Power (standby)	3 W
Physical interface	3 m cable with interface module, 6 wires, (Power / Ethernet)
Indicator	Status LED (Power)
Communication	Ethernet (10/100/1000 Base-T)
Maximum bandwidth	10 Mbit/s
Protocols	Water Linked API
GUI view	3D (first-person), 2D (plan)

Mechanical

Dimensions (W x H x D)	12 x 8 x 4 cm
Weight in air	0.66 kg
Weight in water	0.39 kg
Depth rating	300 meters
Material	Stainless Steel 316, Polyurethane
Operating temperature	-5 to 55 °C

Approvals

CE

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Document revision: WL-21045-2--Sonar-3D-15-Datasheet--v6

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