NORBIT
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WIDEBAND FORWARD LOOKING IMAGING MULTIBEAM SONAR

WBMS Forward-Looking Sonar (FLS) series from NORBIT delivers ultra-compact, high-performance imaging for both mobile and stationary platforms.

Built on a flexible sonar architecture and powered by advanced wideband multibeam technology, it offers long-range, real-time imaging with industry-leading range resolution—revealing fine detail across diverse environments.

Developed from the ground up using state-of-the-art analog and digital signal processing, the FLS series reflects NORBIT's deep R&D expertise. This innovative design enables both existing and emerging applications to benefit from the performance advantages of a compact, curved-array multibeam sonar.

The series comes in two models: Compact and Wide:

FLS Compact features a fully integrated transducer and curved receiver array, delivering a very portable high-performance option that integrates especially well on subsea vehicles.

FLS Wide adds an independent transducer mounted to the housing, expanding coverage while maintaining a compact design for a wide variety of platforms.



FLS model: Compact



FLS model: Wide

Features

- ✓ Acoustic Zoom: Higher Resolution Than Standard Zoom For Operators
- ✓ Fast Image Update Rate
- ✓ User Adjustable Coverage
- ✓ Superior Range Resolution
- ✓ Single Cable Interface For Ethernet, Power, Timing, Triggers
- ✓ Compact Flight Case
- ✓ Low Power Consumption
- ✓ Supports Dual Head Operation Via A Single User Interface.
- ✓ Standard Kit Includes Topside Unit (SIU), Interface Cable, Pigtail Cable, Mounting Hardware & Accessories.

Applications

- ✓ Search And Recovery
- ✓ Navigation Aiding
- ✓ Dive Team Support And Workflow Optimization
- ✓ Underwater Inspection
- ✓ Subsea Obstacle Avoidance
- ✓ O&G Leak Detection
- ✓ Fisheries & Bio-Sciences
- ✓ Intruder Detection (Divers And Subsea Vehicles) With Guardpoint Software Upgrade

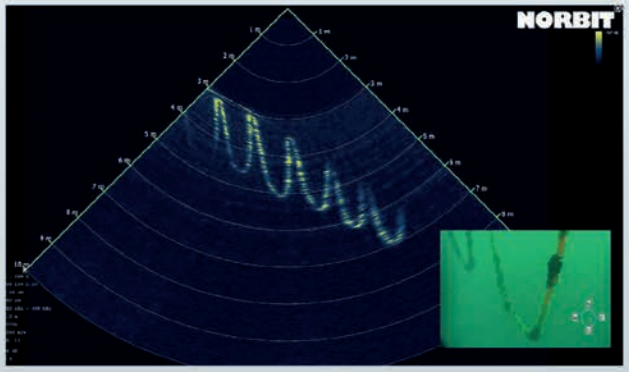
Options

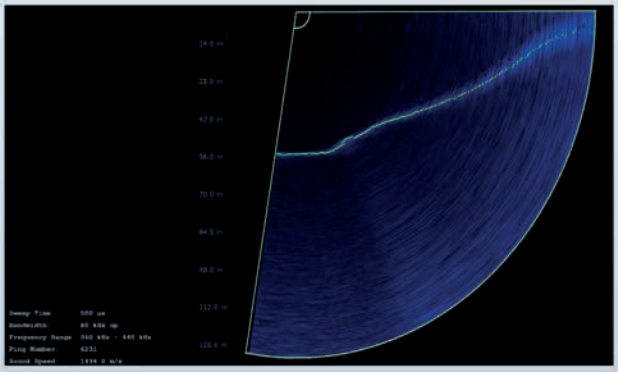
- ✓ Wide Version: Increased Coverage (Up To 180°)
- ✓ Depth Rating: 900m To 6000m
- ✓ Guardpoint Intruder Detection Software/Computer Upgrade
- ✓ Custom Cable Lengths
- ✓ Live Test Certificate To 6000m
- ✓ ClearSignal Anti-fouling
- ✓ Terrain And Obstacle Avoidance Mode In Vertical Orientation
- ✓ Extended Warranty
- ✓ Onsite/Webinar Operator Training

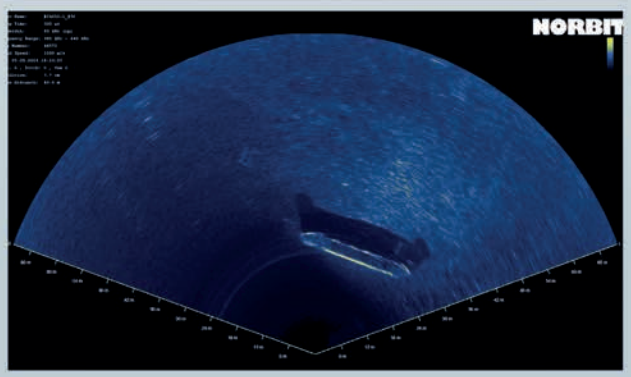
EXPERTS in sensor equipment providing telemetry and communication solutions for harsh environments.
NORBIT develops and delivers innovative products - allowing you to explore more.

NORBIT FLS Multibeam Echo Sounder

DATASHEET - PS-250007-1







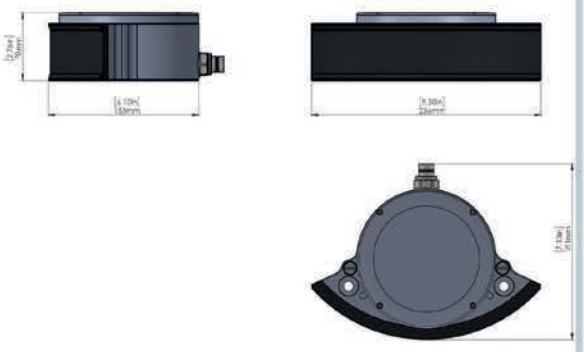
Images demonstrate the versatility of the WBMS Forward Looking Sonar (FLS) as a general-purpose solution where superior performance and reliability are essential. From obstacle avoidance to search and navigation aiding, multiple capabilities are delivered from a single platform, making it a truly multi-purpose imaging tool.

The compact form factor of the WBMS FLS enables easy mechanical integration across a wide range of platforms, while NORBIT's advanced embedded processing ensures low power consumption without compromising image quality. The sonar performs exceptionally in horizontal, vertical, and even unconventional configurations. In every case, NORBIT offers expert guidance to ensure optimal deployment for diverse imaging applications.

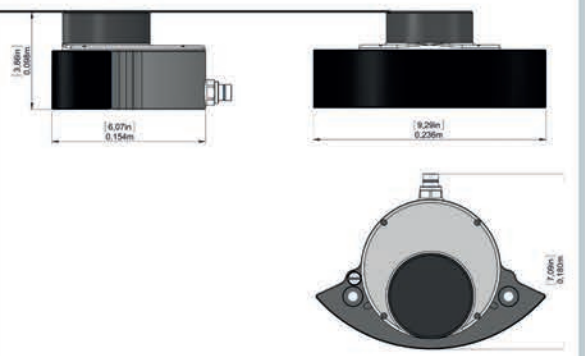
TECHNICAL SPECIFICATION

HORIZONTAL COVERAGE	COMPACT VERSION 7° to 180° (TYPICAL 120°) WIDE VERSION: 7° TO 180° (TYPICAL 150°)
VERTICAL COVERAGE	>25°
ANGLE RESOLUTION	<0.9° @ 400kHz
OPERATING FREQUENCY	400kHz +/- 40kHz (80kHz FM BANDWIDTH) FREQUENCY/SWEEP AGILITY TO MINIMIZE INTERFERENCE
RANGE RESOLUTION	< 10mm
RANGE	NOMINAL 100m @ 400kHz, 250m MAX
BEAM DISTRIBUTION	256 OR 512 BEAMS STANDARD
UPDATE RATE	60Hz
DEPTH RATING	COMPACT VERSION: 900m or 6000m WIDE VERSION: 900m, 4500m, 6000m
WEIGHT	COMPACT VERSION: 2.5 kg (AIR) 0.2 kg (WATER) WIDE VERSION: 2.9 kg (air) 1.3 (Water)
CABLE LENGTH	STD. 8m W/ 2m PIGTAIL. OPTIONAL LENGTHS UP TO 50m
VOLTAGE	10-28VDC OR 100-240VAC USING SONAR TOPSIDE UNIT 24-29VDC DIRECT TO VEHICLE
POWER CONSUMPTION	30W
INTERFACES	SINGLE CABLE INTERFACE INCLUDES 100Mbits/s ETHERNET , TRIGGERS, PPS TIMING, POWER
OPERATING TEMP.	-4°C to +40°C
STORAGE TEMP.	-20°C to +60°C
ENVIRONMENTAL	STANDARD TOPSIDE INTERFACE UNIT : IP67 RATED KIT DOES NOT CONTAIN BATTERIES. MINIMAL NON-VOLATILE MEMORY, CE MARKED, ISO-9001 COMPLIANT

WBMS FLS COMPACT VERSION



WBMS FLS WIDE



Note: Dimensions may vary, dimensions shown is for the standard 900m version.