



# NORBIT WINGHEAD® B51S

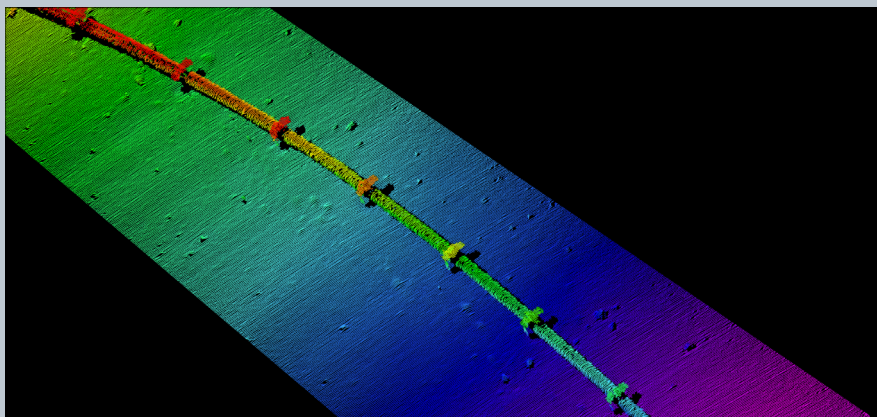


## Superior Performance Ultra High-Resolution 3D&4D Medium Range Motion Stabilised Bathymetric System.

Designed to perform in extreme operational environments with high vessel motion, this cylindrical ultra-high resolution curved array bathymetric system, allows for rapid anywhere anytime mobilisation

NORBIT WINGHEAD sonars are based on a state of the art analogue and digital platform featuring powerful signal processing capabilities, offering active roll and pitch stabilized bathymetry plus several imagery and backscatter outputs as standard ensuring the highest quality survey data performance. With broad R&D expertise, NORBIT has developed - from the ground-up - exciting new technology that allows existing and new applications to benefit from the advantages offered by a compact wideband curved-array multibeam sonar.

The NORBIT WINGHEAD B51S is a compact ultra-high resolution curved array broadband multibeam sonar designed for use in the most demanding operational environments. Characterised further by a small form factor; low power draw and tight integration, WINGHEAD B51S installation can occur on surface survey platforms ranging from small USVs to large vessel permanent hull mounts.





# WINGHEAD B51S

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## Features

- ✓ Active Roll and Pitch Stabilisation
- ✓ 80kHz Bandwidth
- ✓ Backscatter Outputs (Intensity, Sidescan, Snippets, Water Column)
- ✓ Multidetect
- ✓ Pipeline Mode
- ✓ Simple Ethernet Interface
- ✓ Integrated Sound Velocity Probe
- ✓ 1024 Dynamically Focused Beams
- ✓ Mounting Bracket Included
- ✓ FM & CW Processing
- ✓ Exceeds IHO Exclusive Order & USACE New Work

## Options

- ✓ Yaw Stabilisation w. Single Head
- ✓ Dual Swath w. Single Head
- ✓ 2048 Dynamically Focused Beams
- ✓ Backscattering Strength Output
- ✓ Titanium Version
- ✓ Sound Velocity Profiler
- ✓ STX 4D Scanning capability
- ✓ Permanent Hull Mount Option
- ✓ Pole Mount
- ✓ Supports NORBIT iLiDAR
- ✓ Dual Head Configuration
- ✓ Can be Delivered with Software Packages e.g. HYPACK, Qinsy, EIVA, BeamworX, CARIS and Others

## Applications

- ✓ SV, USV & UUV platforms
- ✓ Offshore Inspection, Repair and Maintenance (IRM) operations
- ✓ Harbour; Quay wall, Bridge and Structure Engineering Inspection Surveys
- ✓ Wreck and Seabed Search and Investigation
- ✓ Pond, River, Lake and Estuary Surveys
- ✓ Coastal Surveys
- ✓ Renewable Energy
- ✓ Mineral and Geological Surveys

## TECHNICAL SPECIFICATION

SWATH COVERAGE	5-210° FLEXIBLE SECTOR (SHALLOW WATER IHO SPECIAL ORDER >155°)
RANGE RESOLUTION	<10mm ACOUSTIC w. 80kHz BANDWIDTH
NUMBER OF BEAMS	EA & ED: 256, 512, 1024 (2048 OPTION)
STABILISATION	ROLL, PITCH (YAW OPTION)
OPERATING FREQUENCY	NOMINAL FREQUENCY 400kHz (FREQUENCY AGILITY 170-700kHz)
DEPTH RANGE	0.2m to 300m
PING RATE	UP TO 60Hz, ADAPTIVE
RESOLUTION (ACROSS X ALONG)	STANDARD: 0.5° X 0.9° @400kHz, 0.3° X 0.5° @700kHz
INTERFACE	ETHERNET
POWER CONSUMPTION	TYPICAL <90W (10-28VDC, 110-240VAC) TOTAL SYSTEM POWER CONSUMPTION
DIMENSIONS	DIMENSIONS: H: 315mm/12.41", L: 447mm/17.59", W: 159mm/6.25"
WEIGHT	6.7kg (AIR) 3.0kg (WATER)
CABLE LENGTH	STD 8m, OPTIONAL: 25m FOR OTHER CABLE LENGTHS PLEASE CONTACT NORBIT
OPERATING TEMP.	-4°C to +40°C (TOPSIDE -20°C to +55°C)
STORAGE TEMP.	-20°C to +60°C
ENVIRONMENTAL	TOPSIDE: IP67: DUST TIGHT, PROTECTED AGAINST THE EFFECT OF IMMERSION UP TO 1m WET-END (SONAR): 100m

## OUTLINE DRAWING

