



NORBIT WINGHEAD® i87S



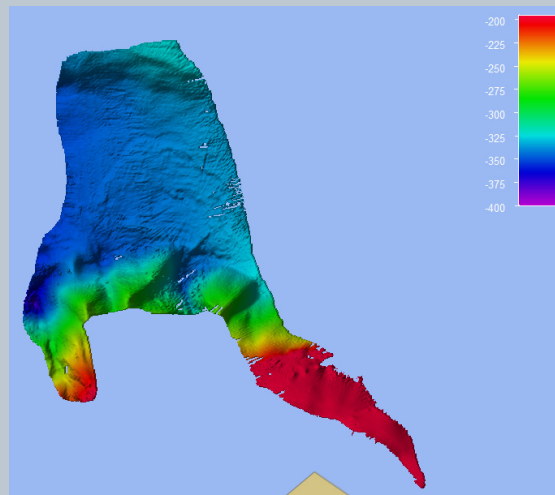
Superior Performance Ultra High-Resolution integrated 3D Long Range Motion Stabilised Bathymetric System.

Designed to offer unsurpassed performance in shallow and medium water depths. This cylindrical ultra-high resolution curved array bathymetric system allows for rapid mobilisation anywhere anytime.

NORBIT WINGHEAD “S” series sonars are based on a state of the art analogue and digital platform featuring powerful signal processing capabilities, offering active roll, pitch and yaw stabilised 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 Long Range WINGHEAD i87S sonar is a ultra-high resolution curved array broadband multibeam echosounder designed to operate in the most demanding environments. Characterised by compact form factor, low power draw and tight integration, WINGHEAD i87S is an optimal choice for surface vessels ranging from small USVs to large vessels and permanent hull mounts.

Supported by DCT (NORBIT Integrated Data Acquisition Software) for efficient survey data acquisition.





WINGHEAD i87S

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Features

- ✓ Active Pitch and Roll Stabilisation
- ✓ Multibeam Sonar can be Integrated with Inertial Navigation System & Integrated NTRIP Client
- ✓ Backscatter Outputs (Intensity, Sidescan, Snippet Sidescan, Snippets, Water Column)
- ✓ Multidetect
- ✓ Pipeline Mode
- ✓ Simple Ethernet Interface
- ✓ Integrated Sound Velocity Probe
- ✓ 1024 Dynamically Focused Beams
- ✓ FM & CW Processing
- ✓ Exceeds IHO *Special Order*, CHS *Exclusive Order* & USACE *New Work*

Options

- ✓ Yaw Stabilisation w. Single Head
- ✓ Dual Swath w. Single Head
- ✓ 2048 Dynamically Focused Beams
- ✓ 19 Inch Rack Mount, Top Side
- ✓ Backscattering Strength Output
- ✓ Dual Head Configuration
- ✓ Pole or Hull Mount Option
- ✓ Supports NORBIT iLiDAR
- ✓ Sound Velocity Profiler
- ✓ Can be Delivered with Software Packages e.g. NORBIT DCT, HYPACK, Qinsy, EIVA, CARIS, BeamworX and Others

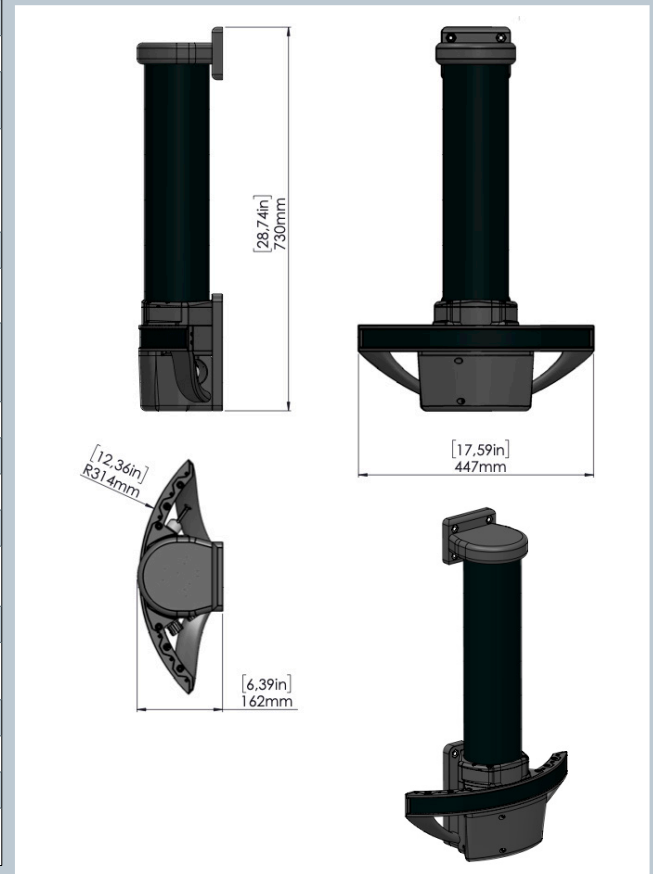
Applications

- ✓ SV & USV Survey Platforms
- ✓ Mid Water Bathymetry
- ✓ Pipeline & Cable Pre Route Surveys
- ✓ Post installation pipeline & cable inspections
- ✓ Mineral and Geological Surveys
- ✓ Wreck and seabed Search and Investigation
- ✓ Oceanographic Research
- ✓ EEZ Surveys
- ✓ Coastal Surveys

TECHNICAL SPECIFICATION

SWATH COVERAGE	5-210° FLEXIBLE SECTOR
RANGE RESOLUTION	<20mm ACOUSTIC w. 40kHz BANDWIDTH
NUMBER OF BEAMS	EA & ED: 256, 512, 1024 (2048 OPTION)
STABILISATION	ROLL, PITCH (YAW OPTION)
OPERATING FREQUENCY	NOMINAL FREQUENCY 100kHz (FREQUENCY AGILITY 70-240kHz)
DEPTH RANGE	0.2m to 1200m* a) EXTINCTION RANGE >1,250m b) SWATH COVERAGE ~1,000m @ 200m WD c) SWATH COVERAGE ~600m @ 100m WD
PING RATE	UP TO 60Hz, ADAPTIVE
RESOLUTION (ACROSS X ALONG)	STANDARD: 2° X 2° @100kHz 1° X 1° @200kHz
POSITION	HOR: ±(8mm +1ppm x DISTANCE FROM RTK STATION) VER: ±(15mm +1ppm x DISTANCE FROM RTK STATION) (ASSUMES 1m GNSS SEPARATION)
HEADING ACCURACY	0.02° (RTK) WITH 2m ANTENNA SEPARATION
PITCH/ROLL ACCURACY	0.01° INDEPENDENT OF ANTENNA SEPARATION
HEAVE ACCURACY	2cm OR 2% (TRUEHEAVETM), 5cm OR 5% (REAL TIME)
INTERFACE	ETHERNET & SERIAL
POWER CONSUMPTION	TYPICAL <95W (10-28VDC, 110-240VAC) TOTAL SYSTEM POWER CONSUMPTION
DIMENSIONS	H: 447mm/17.59", L: 570.0mm/22.44", W: 147mm/5.78"
WEIGHT	22.7kg (AIR) 11.7kg (WATER) - INCL. BRACKET 21.0kg (AIR) 11.0kg (WATER) - EXCL. BRACKET
CABLE LENGTH	STD 8m, OPTIONAL: 25m, LONGER CABLE AVAIL. UPON REQUEST
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): 50m

OUTLINE DRAWING



*Observed with 40deg swath, salinity 30ppm, 10°C