

## NANO HANDHELD

### NANO HANDHELD SONAR DEPLOYMENT



The Echoscope PIPE *NANO Gen Series*<sup>®</sup> *Handheld Frame* makes it easy and comfortable for a diver to manually use one of our ultra-compact *NANO Gen Series*<sup>®</sup> sonars. With real-time 3D sonar data relayed to the topside Dive Supervision team, the *NANO Handheld Frame* gives divers clear vision in low and/or zero visibility water conditions. Support for diving operations is enhanced by providing real-time high-resolution 3D images of live underwater operations including inspections, salvage, interventions, tracking and navigation whilst recording a documented dive record.

The system is fully compatible with the Coda Octopus Diver Augmented Vision Display (DAVD and DAVD Flex) systems that allows real-time 3D data to be relayed directly to the diver via the DAVD Heads Up Display (HUD).

## Real Time 3D Diver Handheld Sonar Features



### Echoscope PIPE *NANO Gen Series*<sup>®</sup>

- A Shade Bigger than a Smartphone
- 3D Imagery Available direct to diver and at surface simultaneously
- Adjustable Beamwidth



### DAVD Compatibility

- Can be used with DAVD and *DAVD Flex* systems to provide a diver Heads-Up-Display (HUD).
- Allow direct diver visualization of the sonar data.



### Neutrally Buoyant

- Designed with buoyancy to give the complete unit a neutrally buoyant weight in water.
- Long-term use made effortless.
- In-air weight of under 9 kg.



### Adjustable Angles

- Sonar can be mounted forward looking or tilted downward between 0-25° in 5° increments.
- Tilt allows easier seafloor visualization.
- Quick-release pins allow easy tilt angle adjustment – can be performed during a dive.



### Practical Handling

- Handles on the sides and top/bottom allow convenient operation.
- Base allows unit to be set down while protecting the sonar.
- Quick release pins allow removal of the sonar from the buoyancy assembly for easy deployment/packing.

## NANO Handheld Technical Specifications

Performance (by Model)	Dual Frequency	Triple Frequency
Acoustic Projectors	Mid-Frequency (500kHz) High-Frequency (840kHz)	XD Low-Frequency (375kHz) Mid-Frequency (500 kHz) High-Frequency (840kHz)
Adaptive Frequency Band	500kHz: 420kHz – 550kHz 630kHz: 550kHz – 700kHz	375kHz: 320kHz – 400kHz 500kHz: 420kHz – 550kHz 840kHz: 700kHz – 920kHz
Number of Beams (Density)	Up to 256 x 256	Up to 256 x 256
Number of Values Per Beam	5,500 (Dependent on Features Purchased)	5,500 (Dependent on Features Purchased)
Maximum Range*	60m (197ft) at 500 kHz 50m (164ft) at 840 kHz	120m (394 ft) at 375 kHz 60m (197ft) at 500 kHz 50m (164ft) at 840 kHz
Minimum Range*	0.5m (1.64ft)	0.5m (1.64ft)
Range Resolution	2cm (0.7")	2cm (0.7")
Update Rate (Ping Rate)	Up to 50Hz	Up to 50Hz
Imaging Field of View (User Selectable)	420kHz – 550kHz: 54°x54° – 46°x46° 700kHz – 920kHz: 33°x33° – 23°x23°	320kHz – 400kHz: 90°x45° – 45°x22° 420kHz – 550kHz: 54°x54° – 46°x46° 700kHz – 920kHz: 33°x33° – 23°x23°
Beam Density (Spacing)	420kHz – 550kHz: 0.21°x0.21° – 0.18°x0.18° 700kHz – 920kHz: 0.13°x0.13° – 0.09°x0.09°	320kHz – 400kHz: 0.35°x0.18° – 0.18°x0.09° 420kHz – 550kHz: 0.21°x0.21° – 0.18°x0.18° 700kHz – 920kHz: 0.13°x0.13° – 0.09°x0.09°
Buoyancy Block	OOT-010 Foam	

\*The actual working range will depend on the target's size, reflectivity, and the level of detail required for the application

### Physical

Dimensions (h x w x d)	375mm x 290mm x 245mm (14.8" x 11.4" x 9.6")	
Weight in Air	8.2kg (18.1lbs)	8.8 kg (19.4 lbs)
Power Consumption	2 – 5 A at 24 V DC	
Depth Rating	Rated up to 50m (164ft)	

Publication Date: 03.30  
Version 1.1