

NANO HANDHELD

NANO Handheld Sonar Deployment

Real Time 3D Diver Handheld Sonar Features

The Echoscope PIPE *NANO Gen Series*® Handheld Frame makes it easy and comfortable for a diver to manually use one of our ultra-compact *NANO Gen Series*® 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. Engineered for simplicity and intuitive operation, *NANO Handheld* is designed to make every stage of use effortless. Its neutrally buoyant design ensures the unit feels virtually weightless in the water, while an in-air weight of under 9 kg keeps handling easy before and after deployment—perfect for extended operations with minimal strain. Flexible mounting options allow the sonar to be positioned forward-looking or tilted between 0–25° in precise 5° increments, enabling clearer seafloor visualization; quick-release pins make these adjustments fast and seamless, even during a dive.

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).



Some of the innovative *NANO Handheld* features available are:



Echoscope PIPE *NANO Gen Series*®
3D imagery available direct to diver and at surface simultaneously, and just a shade bigger than a smartphone



Neutrally Buoyant
Designed with buoyancy to give the complete unit a neutrally buoyant weight in water



DAVD Compatibility
Can be used with DAVD and DAVD Flex systems to provide sonar data directly to the divers Head-Up-Display (HUD), allowing direct visualization of data



Adjustable Angles
Sonar can be mounted forward looking or tilted downward between 0–25° in 5° increments, and tilt allows easier seafloor visualization



Practical Handling
Handles on the sides and top/bottom allow convenient operation, base allows unit to be set down while protecting the sonar

	Dual Frequency			Triple Frequency	
Acoustic Projectors	Mid-Frequency (500 kHz)	High-Frequency (840 kHz)	XD Low-Frequency (375 kHz)	Mid-Frequency (500 kHz)	High-Frequency (840 kHz)
Adaptive Frequency Band	420 kHz - 550 kHz	700 kHz - 920 kHz	320 kHz - 400 kHz	420 kHz - 550 kHz	700 kHz - 920 kHz
Number of Beams (Density)	Up to 256 x 256				
Number of Values per Beam	5,500 (Dependent on Features Purchased)				
Maximum Range*	60 m (197 ft)	50 m (164 ft)	120 m (394 ft)	60 m (197 ft)	50 m (164 ft)
Minimum Range*	0.5 m (1.64 ft)				
Range Resolution	2 cm (0.7")				
Update Rate (Ping Rate)	Up to 50 Hz				
Imaging Field of View (User Selectable)	54°x54° – 46°x46°	33°x33° – 23°x23°	90°x45° – 45°x22°	54°x54° – 46°x46°	33°x33° – 23°x23°
Beam Density (Spacing)	0.21° x 0.21° – 0.18° x 0.18°	0.13° x 0.13° – 0.09° x 0.09°	0.35° x 0.18° – 0.18° x 0.09°	0.21° x 0.21° – 0.18° x 0.18°	0.13° x 0.13° – 0.09° x 0.09°
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					
Dimensions (H x W x D)	375mm x 290mm x 245mm (14.8" x 11.4" x 9.6")				
Weight in Air	8.2 kg (18.1 lbs)		8.8 kg (19.4 lbs)		
Power Consumption	2 - 5 A at 24 V DC				
Depth Rating	Rated up to 50 m (164 ft)				