

BV5000

3D Mechanical Scanning Sonar



BlueView's BV5000-1350 and BV5000-2250 3D mechanical scanning sonar create highresolution imagery of underwater areas, structures, and objects. With the touch of a button, these new 3D mechanical scanning sonar create 3D point clouds of an underwater scene with minimal training required. The compact, lightweight units are easily deployed on a tripod or an ROV. The scanning sonar head and integrated mechanical pan and tilt mechanism generate both sector scans and spherical scan data. For the first time, get 3D laser-like scanning capabilities underwater, even in low and zero visibility conditions and seamless integration with traditional laser scan imagery.

Specifications

Product	BV5000
Country of origin	USA
Manufacturer	Teledyne Marine

Features

- Easy, one-touch scan function
- 3D mosaic imaging without position info
- Easily combined with laser scan imagery
- Compact size fits into tight spaces
- Operates in low and zero visibility conditions
- Two model options (1.35 and 2.25MHz)
- Standard Ethernet/RS485 interface
- Easy Windows-based software
- Leica Cyclone data compatible
- Sector and spherical scans

Applications

- 3D site survey
- 3D structure inspection
- Rig decommissioning
- Bridge inspections
- Underwater metrology

Sonar & Software

	BV5000-1350	BV5000-2250
Sector/Spherical Scan Area (°)	45 - 360	45 - 360
Sonar Field of View (°)	45 x 1	45 x 1
Update Rate (Hz)	Up to 40	Up to 40
Frequency (MHz)	1.35	2.25
Maximum Range	30 m (98 ft.)	10 m (32 ft.)
Optimum Range	1 - 20 m (3.2 - 65 ft.)	0.5 - 7 m (1.6 - 23 ft.)
Number of Beams	256	256
Beam Width (°)	1 x 1	1 x 1
Beam Spacing (°)	0.18	0.18
Time resolution	0.015 m (0.59 in.)	0.010 m (0.39 in.)
Data Output Format	son, .off, and .xyz files	son, .off, and .xyz files

Mechanical

	BV5000-1350	BV5000-2250
Size (L x W x H in inches)	10.5 x 9.2 x 15.4	8.9 x 8.6 x 15.4
Weight in Air/Water (lbs.)	21.7/8.2	19.1/6.0
Depth Rating	300 m (1,000 ft.) / 4,000 m (13,123 ft.)	300 m (1,000 ft.) / 4,000 m (13,123 ft.)
Coms (Sonar/Pan & Tilt)	Ethernet/RS485	Ethernet/RS485
Power Consumption (W)	45 max.	45 max.
Power Requirement (V DC)	20 - 29	20 - 29

Standard equipment and available options

	Included	Optional
Hardware	MB1350-45 or MB2250-45 Sonar Pan & Tilt w/ mounting hardware Sonar, Pan & Tilt junction box Shipping case Accessory kit*	15 ft. Sonar, Pan & Tilt Cable (1 included w/ BV5000 Accessory Kit) 200 ft. Sonar, Pan & Tilt Cable Assembly (needed for tripod and fixed mount systems) 4 ft. Sonar, Pan & Tilt Cable Whip Kit w/ Wiring Diagram (needed for ROV mount systems) EXC500 Ethernet Extender Kit (includes 500 ft. Cable Assembly)
Software	RS485 to USB drivers ProScan 1.3 (or current) MeshLab (included w/ ProScan)	Leica Cyclone Register Leica Cyclone Model Leica Cyclone Model Customer Care Package (CCP) Leica Cyclone Register Customer Care Package (CCP)
Manuals	BV5000 User Handbook Quick Start Guide	Cyclone/BlueView (ships with Cyclone software)
Training		On-Site "Getting Started" hardware/Software (per day) Leica Cyclone "On-Site" Training (2-day)
Warranty	1 Year	Extended Warranty (per year)