

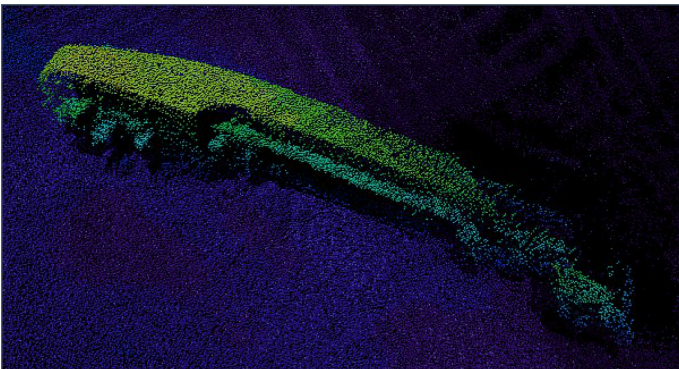
Gemini 620pd

Multibeam Profiling Sonar



Operating at 620kHz the Gemini 620pd is able to provide 10mm range resolution results with an angular resolution of 1° over a maximum swathe of 130°. The Gemini 620pd is able to deal with more varied environments, while continuing to provide high accuracy performance.

The Gemini 620pd software has been designed to provide the user with the ability to easily and effectively optimise the performance of the system. Automatic bottom tracking, variable gate setting, gate tilting as well as roll compensation are some of the automated features that ensure a survey can be completed, with minimal user interaction during operation. Users can choose from a selection of beam patterns, allowing the 620pd to be used in a wide variety of survey applications. A Gemini Hub enables the user to connect up to 2 Gemini 620pd heads. The Gemini Hub is connected to a PC or laptop and ensures data from other survey systems (i.e. GPS, Gyro, MRU and SVS) are accurately synchronised.



Gemini sonar image as post-processed in Hypack®.

High resolution profiling from the Gemini range of multibeams

The Gemini 620pd benefits from the latest technological advances in signal processing. These advances allow the 620pd to produce high performance bathymetry data, which is in turn output to industry recognized survey packages for processing. Designed for Remotely Operated Vehicle (ROV) mounting, the Gemini 620pd is manufactured in titanium and rated to an operational depth of 4000m.

Benefits

- High resolution performance
- 130° swath
- 4000m Titanium housing
- Ease of installation

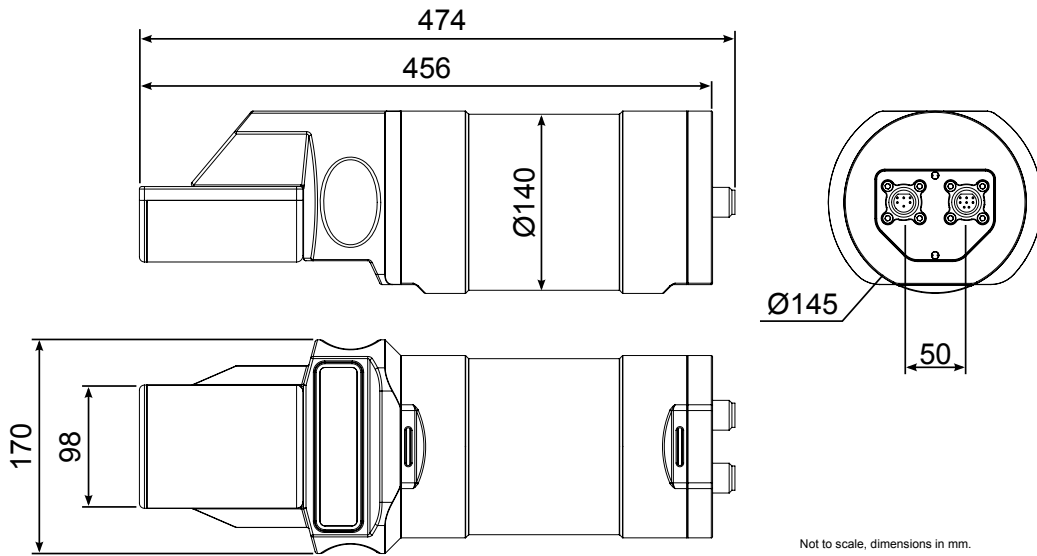
Features

- Ethernet and VDSL communications
- Compatible with industry survey packages
- Automatic bottom tracking
- Roll correction

Applications

- Oceanographic surveys
- Bathymetric surveys
- Pipe / Trench surveying
- Dredging and rock-dump surveys

Specification



Acoustic Properties	
Operating Frequency	620kHz
Angular Resolution	1.0° acoustic, 0.5° effective
Scanning Sector	130°
Number of Beams	256
Vertical Beamwidth	1°
Range	0.5 to 120m
Scan Rate	5-50Hz (inter-ping time dependent)
Range Resolution	10mm (range dependent)
Pulse Length	25 - 200µs (range dependent)

Electrical and Communications	
Power Consumption	37W max (range dependent, head unit only)
Supply Voltage	22 - 75V DC
Data Communications	Ethernet (up to 80m) or VDSL (up to 1000m)
Connector Options	Burton 5506 Series
VDSL Cable Length	Maximum length for VDSL and power is 300m, if power is provided locally (e.g., by the ROV), then cable length for VDSL communications is 1000m.

Physical Specifications	
Weight	19kg air, 13kg water
Depth Rating	4000m
Material	Titanium (6 AL-4V)
Finish	Bead blasted
Operating Temperature	-10 to 35°C
Storage Temperature	-20 to 50°C

Specifications subject to change according to a policy of continual development.

Document: 0695-SOM-00002, Issue: 08

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