

Gemini 620pd

High-resolution echo sounder from Tritech Gemini multibeam imaging sonar technology for a subsea profiling application.

The Gemini 620pd benefits from the latest technological advances in signal processing. These allow the 620pd to produce high performance bathymetry data, which can be 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 4000 m.

Operating at 620kHz the Gemini 620pd is able to provide 10 mm range resolution results with an angular resolution of 1° over a maximum swathe of 130°.

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.

A Gemini Hub enables the user to connect up to 2 Gemini 620pd heads and is connected to a PC or laptop and ensures data from other survey systems are accurately synchronised.



Benefits

- High resolution performance
- Oceanographic surveys
- Pipe and trench surveying
- Dredging and rock-dump surveys
- Bathymetric surveys

Features

- 130° sector scan width
- 1° vertical beam width
- 0.5° effective angular resolution
- Roll correction
- Ethernet or VDSL communication
- 4000 m Titanium housing
- Compatible with industry survey packages

Key Specification

Operating frequency	620 kHz
Angular resolution	1.0° acoustic, 0.5° effective
Range	0.5 m - 120 m / 1.65 ft - 394 ft
Depth rating	4000 m / 13123 ft
Supply voltage	22 to 75 Vdc
Power requirements	37 W max (range dependent, head unit only)
Main port protocol	Ethernet (up to 80 m / 263 ft) or VDSL (up to 500 m / 164 ft)
Weight in water	13.00 kg / 28.66 lbs

Acoustic Specifications

Operating frequency	620 kHz
Angular resolution	1.0° acoustic, 0.5° effective
Range	0.5 m - 120 m / 1.65 - 394 ft
Number of beams	256
Vertical beam width	1°
Range resolution	10 mm / 0.40 in (range dependant)
Update rate	5 – 50 Hz (inter-ping time dependent)
Scanning sector	130°
Pulse length	25 - 200 µs (range dependent)

Interface

Supply voltage	22 to 75 Vdc
Power requirement	37 W max (range dependent, head unit only) ¹
Main port protocol	Ethernet (up to 80 m/ 263 ft) or VDSL (up to 500 m / 164 ft)
Connector type	Burton 5506 series
VDSL cable length	Maximum length for VDSL and power is 300 m, if power is provided locally the maximum length for VDSL communication is 500 m / 1641 ft

Physical Specification

Depth rating	4000 m / 13123 ft
Weight in air	19.00 kg / 41.89 lbs
Weight in water	13.00 kg / 28.67 lbs
Material	Titanium (6 AL-4 V)
Temperature rating (operating)	-10 to +35 °C / - 14 to +95 °F
Temperature rating (storage)	-20 to +50 °C / - 4 to +122 °F

¹ The power consumption range quoted is accurate for a standalone unit and ignores cable losses
Specification subject to change in line with Tritech's policy of continual product development

