

# Gemini 620pd

## Multibeam Profiling Sonar



### Applications

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

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 4000m.

### Benefits

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

### Features

- Ethernet or VDSL communication
- Compatible with industry survey packages
- Automatic bottom tracking
- Roll correction

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.

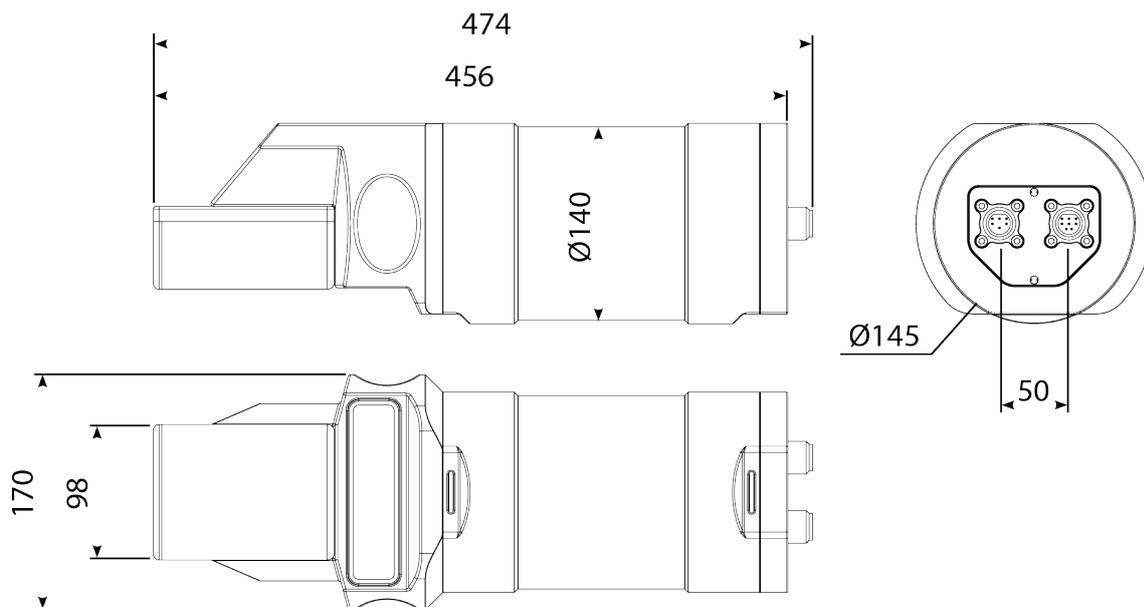
| Key Specification   |                                  |
|---------------------|----------------------------------|
| Operating frequency | 620kHz                           |
| Angular resolution  | 1.0° acoustic, 0.5° effective    |
| Scanning sector     | 130°                             |
| Range               | 0.5 to 120m                      |
| Dimensions          | 474mm x 170mm / 18.67in x 6.70in |
| Weight in water     | 13.00kg /28.67lbs                |

| Acoustic Specifications |                                    |
|-------------------------|------------------------------------|
| 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 Communication |   |
|------------------------------|---|
| Supply voltage               | 22 - 75V DC   |
| Power consumption            | 37W max (range dependent, head unit only)   |
| Data communications          | Ethernet (up to 80m) or VDSL (up to 500m)   |
| Connector type               | Burton 5506 series  |
| VDSL cable length            | Maximum length for VDSL and power is 300m, if power is provided locally the maximum length for VDSL communication is 500m |

| Physical specification         |                              |
|--------------------------------|------------------------------|
| Depth rating                   | 4000m / 13,124ft             |
| Weight in air                  | 19.00kg / 41.89lbs           |
| Weight in water                | 3.00kg / 28.67lbs            |
| Temperature rating (operating) | -10°C to 35°C / 14°F to 95°F |
| Temperature rating (storage)   | -20°C to 50°C / 4°F to 122°F |

Specification subject to change in line with Tritech's policy of continual product development



Not to scale. Measurements in mm.

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0695-SOM-00002 Issue 10

