

# Gemini 720is

Underwater Pluggable - 5°, 10° and 20°

**CUSTOM  
ENGINEERING**



## Underwater visualisation from a low power, compact unit

The Gemini 720is is the latest generation from Tritech's renowned multibeam sonar range and is now available with an enhanced range of vertical beam widths to include 5° and 10° in addition to the existing 20° width.

A real-time, high frequency imaging solution, the Gemini 720is operates at 720kHz and combined with Tritech's advanced processing electronics, it produces images of outstanding clarity benefitting from 512 beams, resulting in a 0.5° effective angular resolution.

The latest Gemini 720is has been developed specifically for long-term deployments, fitted with an underwater pluggable connector with titanium housing. The underwater pluggable connector allows the sonar to be removed and reinstalled subsea with no need to bring the cable end to the surface.

The Gemini 720is is supplied with Seanet Pro, Tritech's data acquisition and logging software, which offers users the ability to network and operate the sonar along with a range of other Tritech sensors, from a single software interface.



## Designed for extended deployment

Gemini standalone software also provides users with additional control over the Gemini 720is and the software can be upgraded to Gemini SeaTec to provide a variety of target detection, classification and tracking capabilities.

The capability to record data in a range of digital video formats and output screen shots for review comes as standard.

### Benefits

- Near field focusing
- 120° field of view
- 8mm range resolution
- Crisp, clear wide angle field of view
- Suitable for low visibility environments
- Easier interpretation of sonar imagery

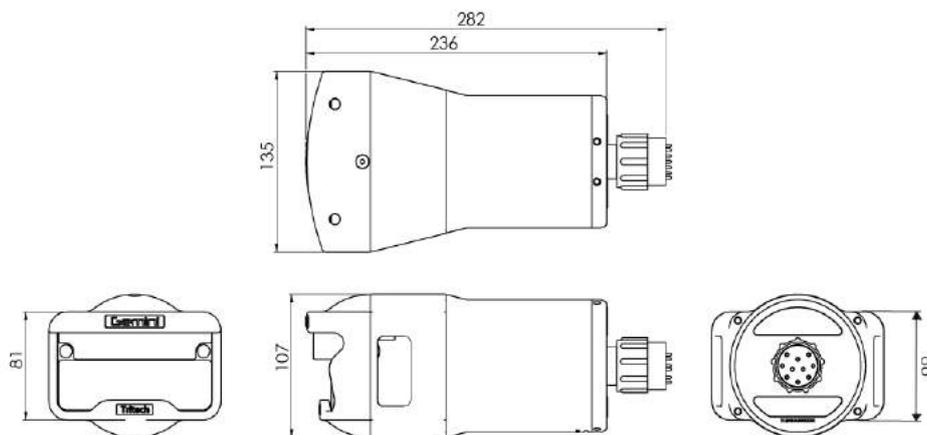
### Features

- Real-time updates for video-like imagery
- Underwater pluggable connector
- Integrated velocimeter for accurate ranging
- Software development kit available

### Applications

- ROV/AUV navigation
- Obstacle avoidance
- Target recognition
- Subsea monitoring and inspection

# Specification



| Acoustic specification         |                                       |                                      |                                    |
|--------------------------------|---------------------------------------|--------------------------------------|------------------------------------|
| Vertical beam width            | $5^\circ \pm 2.5^\circ$ to Horizontal | $10^\circ \pm 5^\circ$ to Horizontal | $20^\circ$ ( $20^\circ$ tilt down) |
| Operating frequency            | 720kHz                                |                                      |                                    |
| Angular Resolution (acoustic)  | $1^\circ$                             |                                      |                                    |
| Angular Resolution (effective) | $0.25^\circ$                          |                                      |                                    |
| Field of View                  | $120^\circ$                           |                                      |                                    |
| Range                          | 0.2m to 120m                          |                                      |                                    |
| Update rate                    | 5-30Hz (range dependent)              |                                      |                                    |
| Range Resolution               | 8mm                                   |                                      |                                    |

| Interface               |   |
|-------------------------|---|
| Power requirement       | 25w   |
| Supply Voltage          | 19 to 74v DC  |
| Communications Protocol | Ethernet or VDSL  |
| Connector Type          | Subconn BH10M   |
| VDSL Cable Length       | 500m with power supplied local to sonar   |
| Depth Rating            | 4,000m, Titanium Allow Housing  |
| Weight in Air           | 5.0kg   |
| Weight in Water         | 3.0kg   |
| Temperature Ranges      | $-10^\circ$ to $35^\circ\text{C}$ (operating), or $-20^\circ$ to $50^\circ\text{C}$ (storage) |

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

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