

Gemini NBI

Produces an acoustic image, cutting through the water with a narrow acoustic beam and at the high refresh rate.

The reduced beam width allows the user to more precisely image the position of targets in high turbid conditions such as trenching and mining applications than is possible with a wide beam imaging sonar commonly used for obstacle avoidance operations.

Operating at 620 kHz the Gemini NBI is able to produce images with 10 mm range resolution while the 0.5° horizontal angular resolution results in an extremely sharp sonar image. Where monitoring your position relative to a known target is the objective, and not general obstacle avoidance, then the Gemini NBI can help guide you safely to the desired target.

The multibeam transducer design used for the Gemini NBI results in a 130° sector scan width and advanced technology allows update rates as high as 30 scans per second. With wide angle imaging and a high refresh rate the user is able to quickly and effectively manoeuvre to a target in poor visibility conditions.

Depth rated to 4000 m and manufactured from titanium the Gemini NBI has been designed to work in the harshest of environments such as those typically found in subsea mining and excavation.

The Gemini NBI software can be run on the customers own laptop PC.

Software development kits (SDKs) are also available for Windows and Linux operating systems.



Benefits

- Trenching operation monitoring
- Mining visualisation
- Pipe and cable lay tracking
- ROV/AUV navigation
- High speed updates

Features

- 130° sector scan width
- 1° vertical beam width
- 0.5° effective angular resolution
- Ethernet or VDSL communication
- Solid-state design reliability
- Easy to use software package

Best Suited	Depth Rated	Frequency	3 Year Warranty	SDK
Trenching	4000 m	620 kHz	✓	✓

Acoustic Specifications

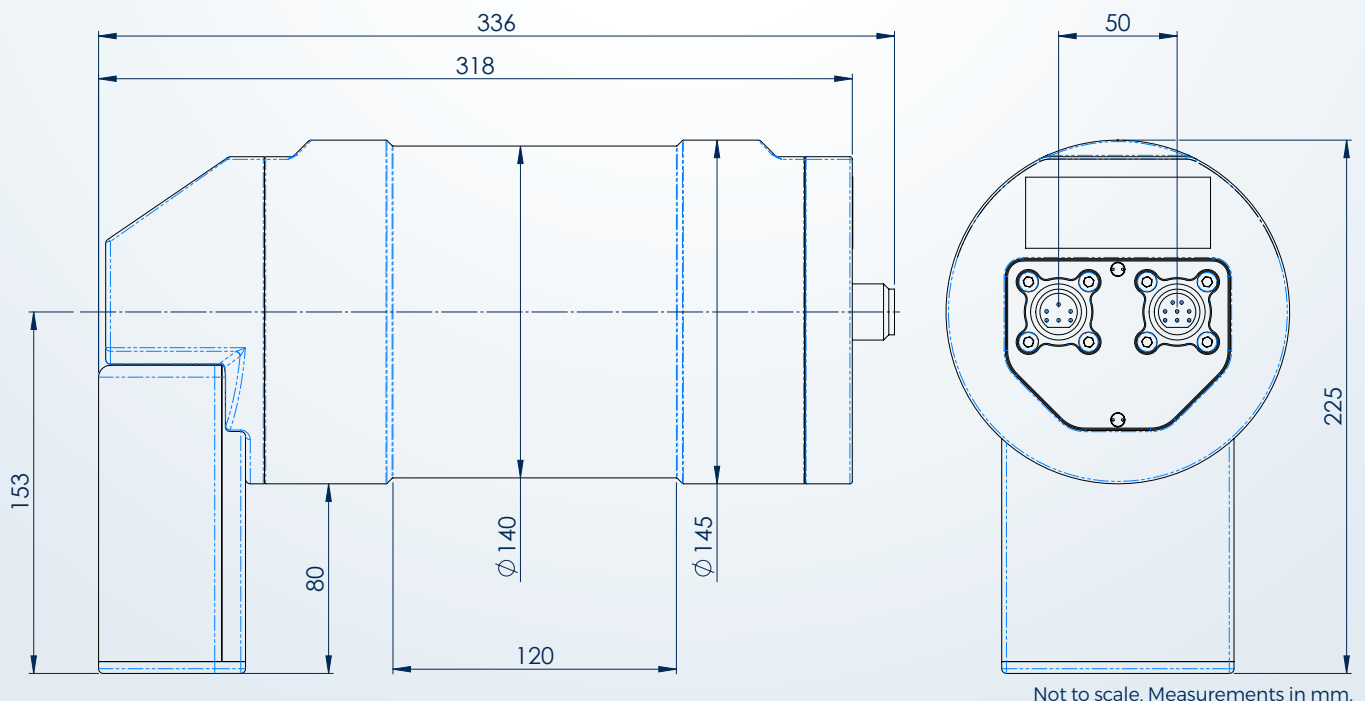
Operating frequency	620 kHz
Angular resolution	1.0° acoustic, 0.5° effective
Range	0.5 - 120 m / 1.65 - 394 ft
Number of beams	256
Vertical beam width	1°
Range resolution	10 mm / 0.40 in (range dependant)
Update rate	5 - 30 Hz (range dependent)
Scanning sector	130°

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	Forward facing	Downward facing
Depth rating	4000 m / 13123 ft	
Weight in air	14.60 kg / 32.19 lbs	19.00 kg / 41.89 lbs
Weight in water	9.50 kg / 21 lbs	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



Not to scale. Measurements in mm.