

Gemini 720ik

Real-time multibeam imaging sonar



A real-time, high frequency imaging solution, the Gemini 720ik operates at 720kHz and combined with Tritech's advanced processing electronics, it produces images of outstanding clarity, benefitting from 512 beams which results in a 0.25° effective angular resolution.

The Gemini 720ik has been developed specifically for shallow water operations with low power consumption and Compressed High Intensity Radar Pulse (CHIRP) processing for greater definition at long range. The product also has an integrated Velocity of Sound (VoS) sensor to ensure extremely accurate imaging and measurement.

The Gemini 720ik is supplied with Seanet Pro, Tritech's data acquisition and logging software, which offers users the ability to operate a number of Tritech sensors using this single software program.

The new Genesis software, which will in time replace Seanet Pro, is also supplied with the Gemini 720ik. This Genesis software offers additional features such as target tracking and already allows you to run a number of other Tritech sensors alongside your Gemini 720ik such as MicronNav USBL and Mechanical scanning sonars.

SeaTec software can also be used with the Gemini 720ik. This advanced software package allows for automatic target identification, classification and tracking.

Compact underwater visualisation

The Gemini 720ik is a shallow rated version of the industry recognised Gemini 720is, offering the same imaging performance as the Gemini 720is but in a more compact package.

This smaller and lighter Gemini 720ik is ideal for small ROVs and shallow water operation where size and weight is critically important.

Benefits

- Near field focusing
- 4mm range resolution
- 350m depth rating
- Crisp, clear wide angle field of view
- Suitable for low visibility environments

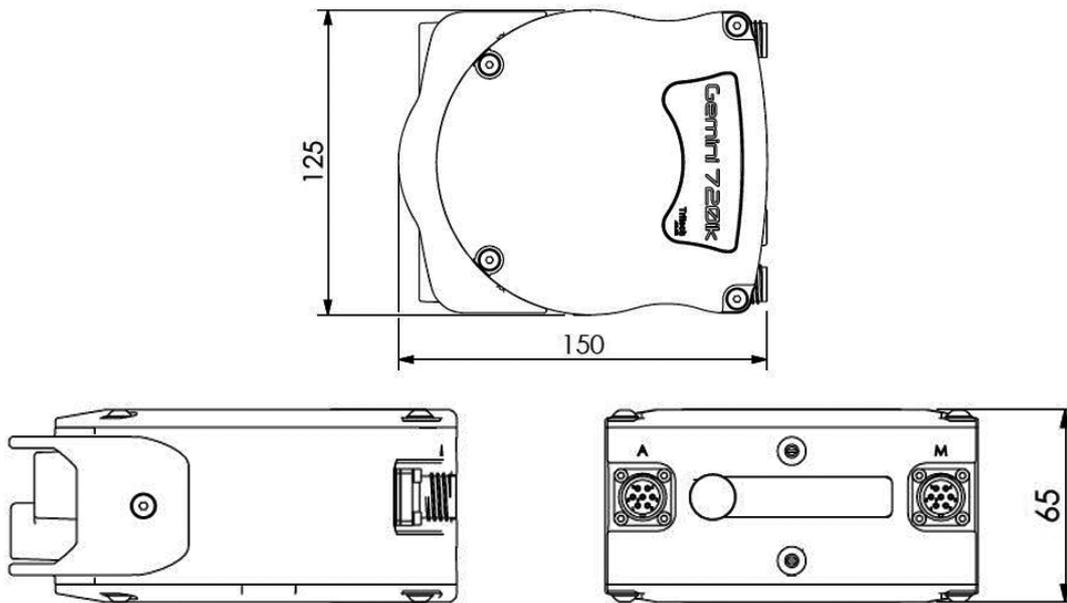
Features

- Real-time updates for video-like imagery
- World-class 97Hz update rate
- 120° field of view
- CHIRP processing
- Integrated velocimeter for accurate ranging
- Software development kit available

Applications

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

Specification



All dimensions are in mm, not to scale

Acoustic specifications	
Operating frequency	720kHz
Angular resolution	1.0° acoustic, 0.25° effective
Range	0.2m - 120m
Number of beams	512
Horizontal beamwidth	120°
Vertical beamwidth	20° (±10° about horizontal axis)
Update rate	5 - 97Hz (range dependent)
Range resolution	4mm & 8mm ¹
CHIRP support	Yes
Speed of Sound	VoS sensor

Interface	
Supply voltage	19V to 74V DC
Power requirement	16W - 27W (range dependent) ²
Main port protocol	Ethernet
Auxiliary port (optional)	RS232, TTL in, pass-through power
Connector type	MAIN port: Impulse MKS(W)-307-FCR AUX port: Impulse MKS(W)-307-FCR

Physical specification	
Depth rating	350m
Weight in air	1.40kg
Weight in water	0.43kg
Temperature rating	-10°C to 35°C (operating), -20°C to 50°C (storage)

¹ Software switchable.

² 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

Marketed by:

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