

MicronGemini 720s

Incredibly compact and light-weight, offering a cost-effective solution for obstacle avoidance and navigation of small ROVs/AUVs.

It is an obvious choice for the applications where size and weight are critical, but a small mechanical scanning sonar does not offer the required real-time imaging.

MicronGemini 720s is powered with Trittech's robust hardware and state-of-the-art signal processing algorithms.

With Trittech's advanced processing electronics, the MicronGemini 720s operates at 720kHz, to produce images of outstanding clarity.

In addition to its impressive compact dimensions, it has integrated sensors which provide a depth and temperature reading and an optional AHRS for bearing, roll and pitch.



Applications

- Obstacle Avoidance
- ROV/AUV Navigation
- Target Detection
- Diver Mounted Display

Features

- Very compact and light-weight
- 90° horizontal field-of-view
- Ethernet and serial comms
- Serial auxiliary port
- Low power
- 20 Hz update rate
- 300 m or 750 m depth rated
- CW & CHIRP processing
- Integrated sensor for depth and temperature reading
- Optional built-in AHRS

Key Specification

Operating frequency	720kHz
Angular resolution	2.34° acoustic, 0.7° effective
Range	0.2 m to 50 m / 0.6 ft to 164 ft
Supply Voltage	12 to 48 Vdc
Power Requirement	8.5 W
Main port protocol	Ethernet (100Base-T) and/or Serial (RS232 or RS485)
Dimensions	116 mm x 63 mm x 40 mm / 4.57 in x 2.49 in x 1.58 in
Depth rating	300 m / 1148 ft or 750 m / 2460 ft
Weight in air	0.43 kg / 0.97 lbs
Weight in water	0.24 kg / 0.53 lbs

Acoustic specifications	Low frequency mode
Operating frequency	720 kHz
Angular resolution	2.34° acoustic, 0.7° effective
Range	0.2 m to 50 m / 7.9 in to 164 ft
Number of beams	128
Horizontal beam width	90°
Vertical beam width	20° (±10° about horizontal axis)
Range resolution	8 mm / 0.31 in
Update rate	3 to 20 Hz (range dependent)
Mode of operation	CHIRP and CW or Auto

Integrated sensors

Pressure sensor*1	Depth accuracy: ±2 m
AHRS*2	Bearing accuracy: 2° RMS
	Roll & Pitch accuracy: 1.5° RMS (static)

Interface

Supply voltage	12 to 48 Vdc
Power requirement	8.5 W
Main port protocol	Ethernet (100Base-T) and/or Serial (RS232 or RS485)
Auxiliary port protocol	Serial (RS232 or RS485)
Connector type	Main: Aegir Marine MKS (W) BCR 07, Impulse MKS(W)-3L10, Tritech Micron & Impulse MKS(W)-307 (Special Order) Aux: Tritech Micron

Physical specification

Dimensions	103.6 mm x 63 mm x 40 mm / 4.08 in x 2.49 in x 1.58 in (See Manual for Connector details)
Weight in air	0.43 kg / 0.97 lbs
Depth rating	300 m / 1148 ft or 750 m / 2460 ft
Weight in water	0.24 kg / 0.53 lbs
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

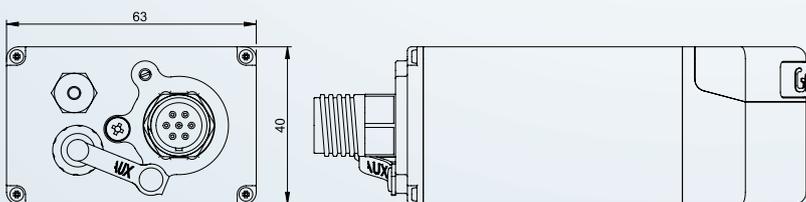
Software

Genesis: (Included)	OS: Microsoft Windows 7, 10, 11 - 2 GHz (minimum) 3 GHz Quad Core (recommended)
SDK	Windows, Linux (Available on request)

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

1 Default. Applicable to 300 m depth rated variant only

2 Optional extra



Not to scale. Measurements in mm

