Micron Sonar
Ultra Compact Imaging Sonar

Applications
- Small ROV navigation & obstacle avoidance
- Target location
- AUV guidance

The Tritech Micron Sonar has set high standards in compact sonar technology. It is one of the smallest digital CHIRP sonar in the world. CHIRP technology dramatically improves the range resolution compared with conventional sonars and is a feature normally associated with much larger, more expensive systems.

Benefits
- Extremely compact
- Simple to operate
- Cost effective and reliable
- Hard boot protected transducer

Features
- 750m & 3000m depth rating
- True acoustic zoom
- Digital CHIRP system
- RS232 and RS485
- Target size measurement

The Micron Sonar was developed to be compact, light, inexpensive and easy to install. It is therefore ideal for small to micro ROVs and AUVs. The Micron Sonar incorporates the very latest surface mounted digital electronics and many software features normally found only on full sized commercial systems.

Based on experience gained from Tritech's world class range of SeaKing and SeaPrince sonars, the Micron incorporates the most advanced acoustic features and software available today. The sonar can be controlled by a customer supplied PC or laptop and it can be configured for either RS232 or RS485 protocols. The Micron has an auxiliary port allow it to interface with other Tritech sensors.
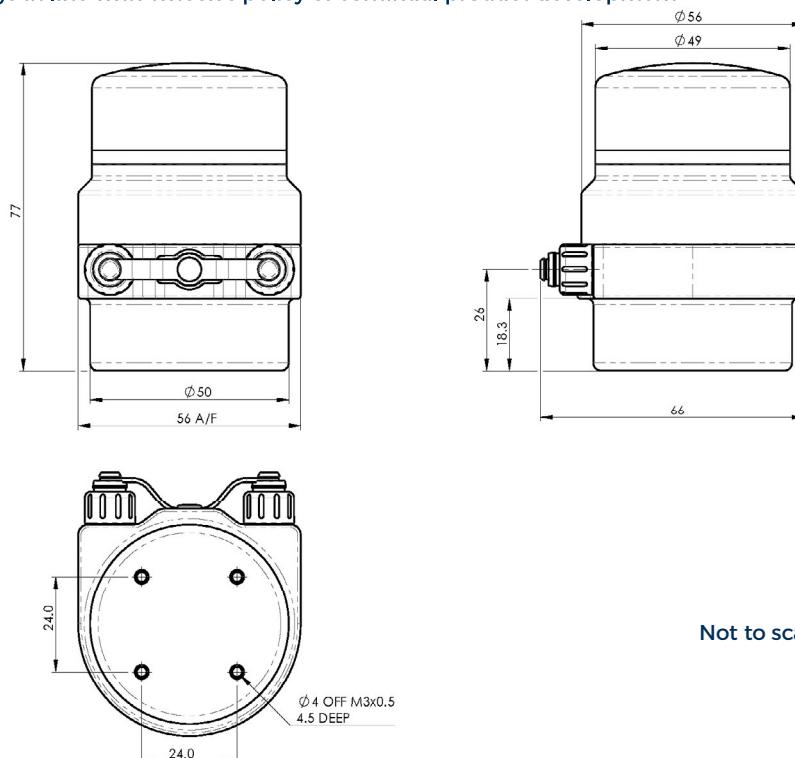
Key Specification	
Operating frequency	CHIRP centred on 700kHz
Range resolution	approximately 7.5mm (minimum)
Power requirement	12 - 48V DC at 4VA (average)
Main port protocol	RS485 (2-wire, single drop) & RS232
Dimensions	79mm x 56mm x 50mm / 3.12in x 2.21in x 1.97in
Depth rating	750m standard, 3000m optional / 2461ft standard, 9843ft optional
Weight in air	0.32kg / 0.71lbs
Weight in water	0.18kg / 0.40lbs

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Acoustic Specifications

Operating frequency	CHIRP centred on 700kHz
Beamwidth	35˚ vertical, 3˚ horizontal
Range	0.3m - 75m / 1.0ft - 247ft
Range resolution	approximately 7.5mm (minimum)
Mechanical resolution	0.45˚, 0.9˚, 1.8˚, 3.6˚
Scanning sector	Variable up to 360
Continuous 360˚ scan?	Yes
Sector offset mode?	Yes

Interface

Power requirement	12 - 48V DC at 4VA (average)
Maximum cable length	1000m using RS485 (twisted pair)
Communication protocols	RS485 (2-wire, single drop) & RS232
Surface control	Computer using standard serial port, SeaHub or USB-RS232/RS485 converter
Control software	Genesis, Seanet Pro or low-level command protocol
Software features	True acoustic zoom, instant reversal, image measurement, inverted head operations

Physical specification

Depth rating	750m standard, 3000m optional / 2461ft standard, 9843ft optional
Weight in air	0.32kg / 0.71lbs
Weight in water	0.18kg / 0.40lbs
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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