

ImpactSubsea

Innovative Underwater Products

ISA500 11k – Altimeter & AHRS Sensor



Impact Subsea is proud to present the ground breaking full ocean depth **ISA500 Underwater Altimeter**.

Based on the ISA500 architecture, the full ocean depth ISA500 is optionally available with integrated **Attitude & Heading Reference System (AHRS)**.

The **ISA500** utilises a broadband composite transducer together with an advanced digital acoustic engine to provide the highest level of stability and range available from a 500kHz Altimeter.

With an integrated AHRS, the **ISA500** can compensate for pitch and roll to **provide true altitude reading at all times**. For applications where Altitude, Heading, Pitch & Roll are required; all can be provided from a single device.

Features

120+ Meter Range

1 mm Accuracy

Integrated AHRS

Robust & Compact

Multi-Echo Output

Emulate Any Device

Benefits

Proven Long Range Measurement

Proven Millimeter Accuracy

Provides Heading to $\pm 1^\circ$, Pitch & Roll to 0.2° Accuracy

Ideal for all underwater applications

View all Returned Acoustic Echos – Ideal for Measuring Between Objects

Direct Replacement of Existing Equipment

Applications

ROV & AUV Altitude, Heading & Attitude

Wave Height Measurement

Under Ice Measurement

Equipment Deployment

Motion Reference

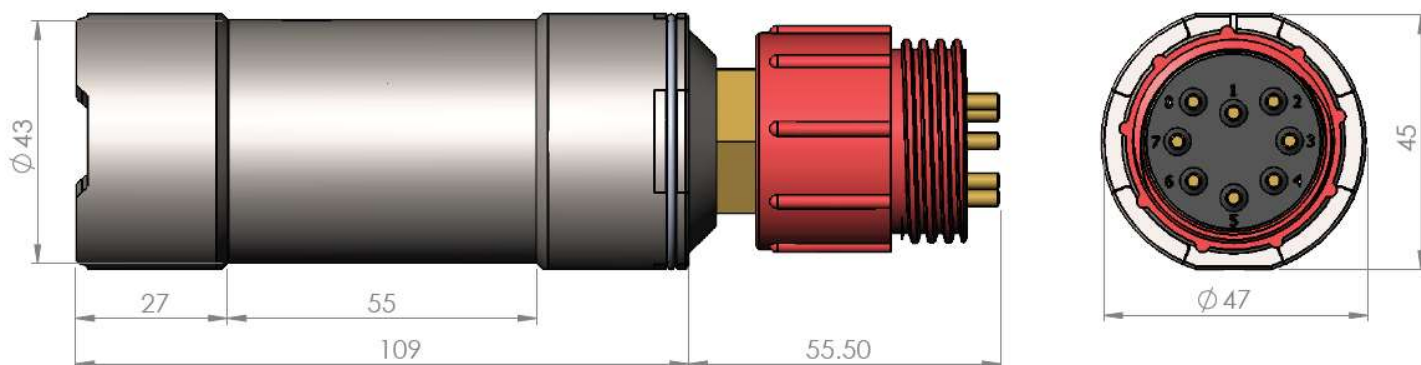
Underwater Positioning

www.impactsubsea.com

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Other connector options are available.

All dimensions are in mm.

Acoustic	
Frequency	500kHz Standard 400 to 600kHz Selectable
Range	0.1 to 120m+ (Maximum range dependant on seabed type)
Resolution	1mm
Beam Angle	6° conical at 500kHz
Signalling	Monotonic
Pulse Length	User Defined
Communications & Power	
Digital	RS232 & RS485
Protocol	300 to 115,200 baud
Analogue	0 to 5V DC, 0 to 10V DC or 4-20mA
Data	Continuous or on demand
Data Rate	Up to 10Hz
Input Voltage	9 to 36V DC
Power (No Altitude)	25mA @ 24V DC
Power (With Altitude)*	51mA @ 24V DC

Heading	
Accuracy	± 1°
Resolution	0.1°
Attitude	
Pitch	± 90°
Roll	± 180°
Accuracy	0.2°
Resolution	0.1°
Physical	
Weight (Air / Fresh Water)	0.62/0.41kg
Depth Rating	11,000m
Temperature	-10 to 40° operating -20 to 60° storage
Connector	Subconn BH8M-SS Other options available

* 100% Tx power, 10Hz update rate.

Specifications subject to change in line with product enhancements. Rev 1.0

sales@impactsubsea.co.uk
+44(0)1224 460 850
www.impactsubsea.com