

ISA500 11K

ALTIMETER & SINGLE BEAM ECHOSOUNDER

**IMPACT
SUBSEA**
INNOVATIVE SENSORS



FEATURES & BENEFITS

- **120+ METER RANGE**
Proven long range measurement.
- **1MM ACCURACY**
Proven millimetre accuracy.
- **INTEGRATED AHRS***
Provides Magnetic Heading to $\pm 1^\circ$
Pitch & Roll to 0.2° accuracy.
- **ECHOGRAM***
Visualise sonar backscatter data.
Up to 2,000 samples per ping.
- **EMULATE ANY DEVICE**
Direct replacement of existing
equipment.
- **ROBUST AND COMPACT**
Ideal for all underwater applications.

Impact Subsea are 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 and 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 integrated AHRS, the ISA500 has the ability to compensate for pitch and roll - providing a true altitude reading at all times. For applications where Altitude, Heading, Pitch and Roll are required; all can be provided from a single device.

World's smallest full ocean depth Altimeter. Ideal for deep-water applications where space and weight are critical considerations. Can be supplied without integrated AHRS.



In 2021, the ISA500 gained recognition from the UK's most prestigious business awards, winning a Queen's Award for Enterprise in the innovation category.

APPLICATIONS INCLUDE:

Scour Monitoring | Touchdown Monitoring | Hydro-graphic Survey | Motion Reference |
Wave Height Measurement | Equipment Deployment | Under Ice Measurement |
Underwater Positioning | ROV & AUV Altitude, Heading & Attitude |

*Optional



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ACOUSTIC

Frequency	500kHz Standard 400 to 600kHz selectable
Range	0.1 to 120m+ <i>Dependent on seabed type</i>
Accuracy	1mm
Resolution	1mm
Beam Angle	6° conical at 500kHz
Signalling	Monotonic
Pulse Length	User Defined

COMMS & POWER

Digital	RS232 & RS485
Protocol	4800 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 100Hz
Input Voltage	9 to 36V DC
Power	26mA @ 24V DC
	<i>No Altitude</i>
Power	52mA @ 24V DC
	<i>With Altitude¹</i>

PHYSICAL

Depth Rating ²	11,000m
Temperature	-10 to 40°C Operating -20 to 60°C Storage
Connector	Subconn BH8M-SS <i>Other options available</i>
Weight	0.62/0.41kg
	<i>Air/Fresh water</i>

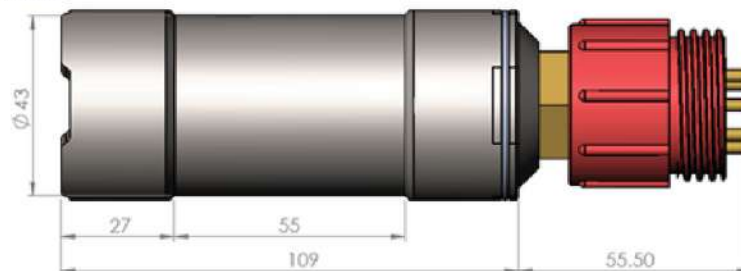
ATTITUDE*

Pitch	± 90°
Roll	± 180°
Accuracy	0.2°
Resolution	0.1°

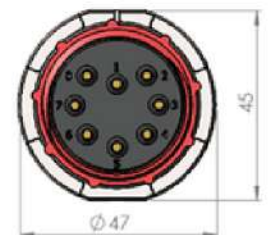
HEADING*

Accuracy	± 1°
Resolution	0.1°

Heading provided to Magnetic North



Dimensions given in mm.



*Optional

¹ 100% Tx power, 10Hz update rate.

² Other options available, see ISA500 Datasheet.