

# ISA500

## ALTIMETER & SINGLE BEAM ECHOSOUNDER

### FEATURES & BENEFITS

#### › 120+ METER RANGE

Proven long range measurement.

#### › 1MM ACCURACY

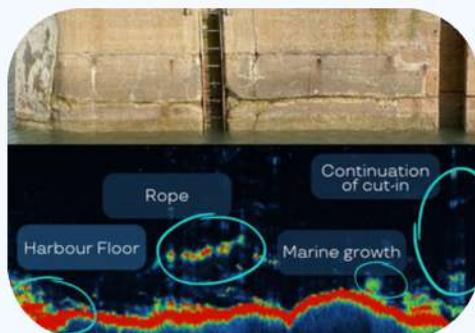
Proven millimetre accuracy.

#### › INTEGRATED AHRS\*

Provides Magnetic Heading to  $\pm 1^\circ$   
Pitch & Roll to  $0.2^\circ$  accuracy.

#### › ECHOGRAM\*

Visualise sonar backscatter data.  
Up to 2,000 samples per ping.



#### › EMULATE ANY DEVICE

Direct replacement of existing equipment.

#### › VARYING DEPTH RATINGS

Available in 1000m, 6000m and 11,000m depth ratings.



Impact Subsea are proud to present the ground breaking ISA500 family of altimeters and single beam echosounders. Highly robust, with optional 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.

Provided in Titanium or Acetal Housing, available in forward looking or right angled configurations. Can be supplied without integrated AHRS. Alternative configurations available on request.



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.

\*Optional



### 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 |

ALTIMETER & SINGLE BEAM ECHOSOUNDER



**ACOUSTIC**

Frequency	500kHz Standard 400 to 600kHz selectable in 1kHz steps
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
No Altitude	
Power	52mA @ 24V DC
With Altitude <sup>1</sup>	

**PHYSICAL**

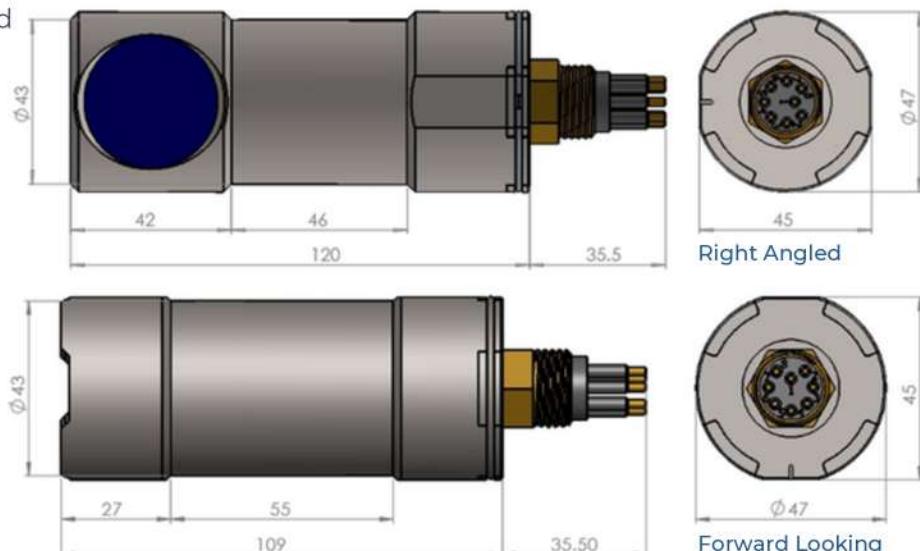
Depth Rating <sup>2</sup>	6,000m (Titanium) 1,000m (Acetal)
Temperature	-10 to 40°C Operating -20 to 60°C Storage
Connector	Subconn MCBH8M-SS <i>Other options available</i>
Weight (Forward Looking) <i>Air/Fresh water</i>	0.5/0.325kg (Titanium) 0.3/0.110kg (Acetal)
Weight (Right Angled) <i>Air/Fresh water</i>	0.520/0.350kg (Titanium) 0.270/0.125kg (Acetal)

**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

<sup>1</sup> 100% Tx power, 10Hz update rate.

<sup>2</sup> Also available in 11,000m, see ISA500-11K Datasheet.

