

# ISA500

## Underwater altimeter & echosounder



Impact Subsea are proud to present the ground breaking ISA500 family of altimeters. 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.

### Specifications

|                          |   |
|--------------------------|---|
| <b>Product</b>           | ISA500 underwater altimeter & echosounder |
| <b>Country of origin</b> | UK  |
| <b>Manufacturer</b>      | Impact Subsea                             |

## Acoustic

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

## Physical

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

## Heading

|                   |      |
|-------------------|------|
| <b>Accuracy</b>   | ± 1° |
| <b>Resolution</b> | 0.1° |



## Comms & power

|                            |                                    |
|----------------------------|------------------------------------|
| <b>Digital</b>             | RS232 & RS485                      |
| <b>Protocol</b>            | 4800 to 115,200 baud               |
| <b>Analogue</b>            | 0 to 5V DC, 0 to 10V DC or 4-20mA* |
| <b>Data Rate</b>           | Up to 100Hz                        |
| <b>Input voltage</b>       | 9 to 36V DC                        |
| <b>Power no altitude</b>   | 26mA @ 24V DC                      |
| <b>Power with altitude</b> | 52mA @ 24V DC                      |
| <b>Data</b>                | Continuous or On Demand            |

## Attitude

|                   |                 |
|-------------------|-----------------|
| <b>Pitch</b>      | $\pm 90^\circ$  |
| <b>Roll</b>       | $\pm 180^\circ$ |
| <b>Accuracy</b>   | 0.2°            |
| <b>Resolution</b> | 0.1°            |

