mpactSubsea

Innovative Underwater Products

ISA500 - Altimeter & AHRS Sensor





Impact Subsea is proud to present the ground breaking *ISA500* family of **Underwater Altimeters**. Highly robust **Altimeters** with optional 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* has the ability to compensate for pitch and roll – providing a true altitude reading at all times. For applications where Altitude, Heading, Pitch & Roll are required; all can be provided from a single device.

The *ISA500* is provided in a highly robust Titanium or Delrin® housing. The housing is available in forward looking or right angle configurations. The unit can be supplied without the AHRS. Alternative OEM configurations are available upon request.

| Features | Benefits |
|-------------------------|---|
| 120+ Meter Range | Proven Long Range Measurement |
| 1 mm Accuracy | Proven Millimetre Accuracy |
| Integrated AHRS | Provides Heading to ± 1°, Pitch & Roll to 0.2° Accuracy |
| Optional Delrin Housing | Low Weight and Cost |
| Multi-Echo Output | View all Returned Acoustic Echos – Ideal for Measuring Between Objects |
| Emulate Any Device | Direct Replacement of Existing Equipment |

Applications

ROV & AUV Altitude, Heading & Attitude

Scour Monitoring

Hydro-graphic Survey

Touchdown Monitoring

Wave Height Measurement

Under Ice Measurement

Equipment Deployment

Motion Reference

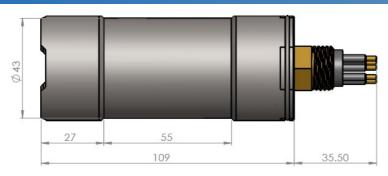
Underwater Positioning

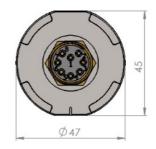
www.impactsubsea.com

mpactSubsea

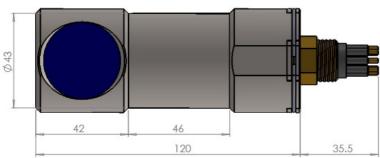
Innovative Underwater Products

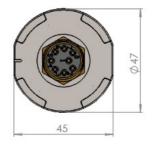
ISA500 - Altimeter & AHRS Sensor





Forward Looking Housing





Right Angle Housing

Other housing and 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 | Auto/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 |

^{* 100%} Tx power, 10Hz update rate.

| Heading | |
|---|--|
| Accuracy | ± 1° |
| Resolution | 0.1° |
| Attitude | |
| Pitch | ± 90° |
| Roll | ± 180° |
| Accuracy | 0.2° |
| Resolution | 0.1° |
| Physical | |
| | |
| F/L: Weight (Air / Fresh Water) | 0.5/0.325kg (Titanium) 0.3/0.110kg (Delrin®) |
| | |
| Fresh Water) R/A: Weight (Air / | 0.3/0.110kg (Delrin®) 0.520/0.350kg (Titanium) |
| Fresh Water) R/A: Weight (Air / Fresh Water) | 0.3/0.110kg (Delrin®) 0.520/0.350kg (Titanium) 0.325/0.125kg (Delrin®) 4,000m (Titanium)** |

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

Specifications subject to change in line with product enhancements. Rev 2.2

^{** 6,000}m rated option available