

ISM3D – Heading, Pitch & Roll Sensor



Impact Subsea is proud to present the ground-breaking ISM3D family of Underwater Attitude and Heading Reference System (AHRS) Sensors.

Highly robust, compact and lightweight, the ISM3D is ideal for ROV, AUV and other underwater Heading, Pitch and Roll applications.

With a selectable Inertial mode, the ISM3D Heading is highly resilient of temporary magnetic interference.

The ISM3D utilises MEMS based Accelerometers, Angular Rate Gyroscopes and Magnetometers.

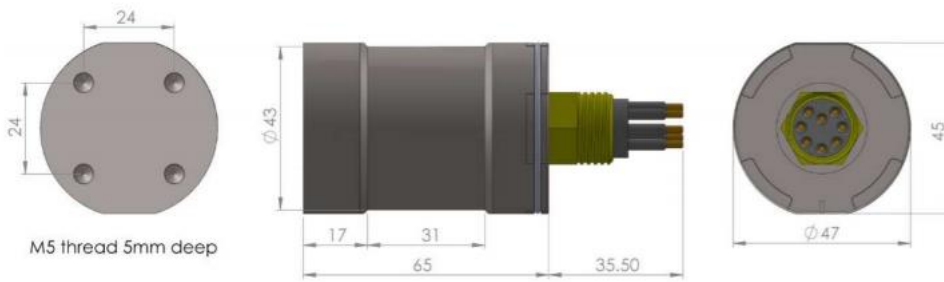
The outputs from each sensor are processed by an advanced fusion algorithm to provide highly stable and accurate Heading, Pitch and Roll.

The ISM3D is provided in a highly robust Titanium or Black Acetal housing. Alternative OEM configurations are available upon request.

Features	Benefits
Heading	Provides heading to $\pm 0.5^\circ$ of Local Magnetic North
Pitch & Roll	Provided to $\pm 0.07^\circ$ Accuracy
Titanium Housing	Robust & Depth Rated to 6,000 Meters
Optional Delrin Housing	Low Weight
SeaView Software	Configure Sensor, View & Log Data
Emulate Any Device	Direct replacement of existing equipment

Applications

ROV & AUV Heading & Attitude
Equipment Deployment Monitoring
Motion Reference Unit (MRU)
Auto Heading
Replacement for Flux Gate Compass
Replacement for Magnetically Slaved Gyro



Standard connector & housing shown - other connector options are available.

All dimensions are in mm.

Specifications

Heading

Accuracy $\pm 0.5^\circ$ of Local Magnetic North

Resolution 0.1°

Communications & Power

Digital RS232 & RS485

Protocol 300 to 115,200 baud

Data Continuous or on demand

Data rate Up to 250Hz

Input voltage 7 to 32V DC

Power 29mA @ 24V DC

Attitude

Pitch $\pm 90^\circ$

Roll $\pm 180^\circ$

Accuracy $\pm 0.07^\circ$

Resolution 0.01°

Physical

Weight (Air / Fresh Water) 0.33/0.225kg (Titanium)
0.20/0.10kg (Acetal)

Depth Rating 6,000m (Titanium)
1,000m (Acetal)

Temperature -10 to 50° operating
-20 to 70° storage

Connector Subconn MCBH8M-SS
other options available

Specifications subject to change in line with product enhancements