

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.

Key Features

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

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)

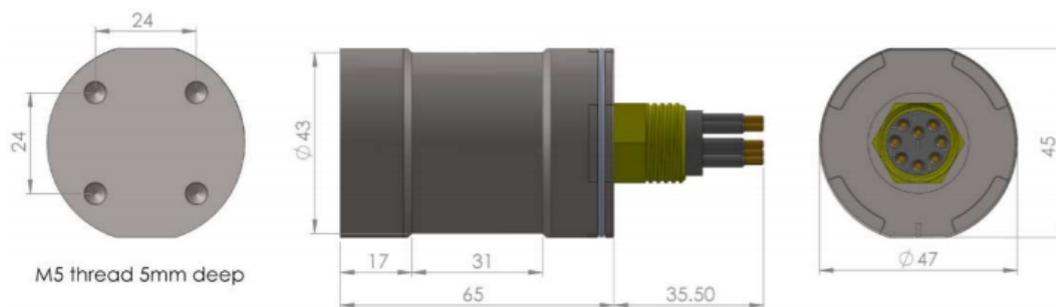
Depth Rating 6,000m (Titanium)
1,000m (Acetal)

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

Connector Subconn MCBH8M-SS
other options available

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.