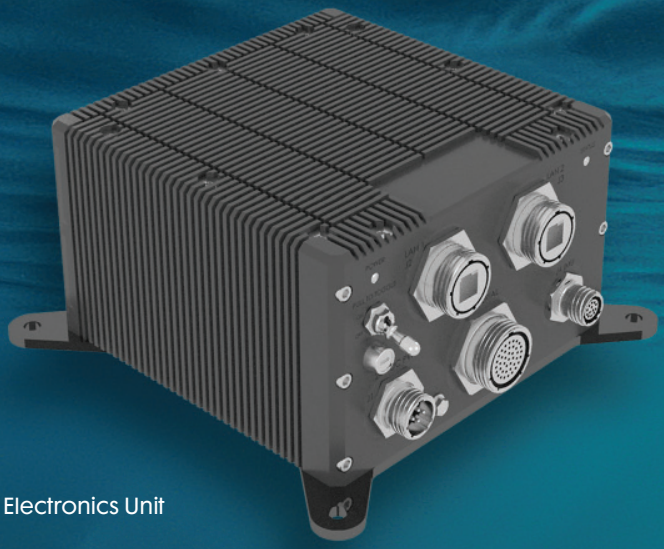
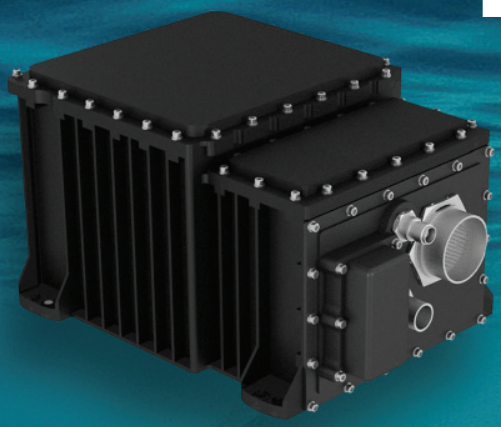


Electronics Unit



Inertial Measurement Unit

# SeaFIND™

## Next generation INS with FOG at lower cost — in a fraction of the deck space

The newest product of the inertial navigation family, SeaFIND provides accurate geographic position information for GPS available and GPS denied environments, and attitude, heading, and velocity data needed for fire control stabilization and weapons initialization. SeaFIND is a fiber-optic gyrocompass (FOG) that occupies significantly less deck space than our previous MK39 ring laser gyrocompass (RLG) family of inertial navigation products while providing the same level of performance.

SeaFIND, like all of our previous gyrocompass and navigation systems, is designed and built with the technological expertise evolved from over 100 years of dedication to the maritime market. SeaFIND stands ready to take your navy and coast guard into the next millennium, today.

### Benefits of Use

- Low acquisition cost and through-life cycle
- High reliability, no maintenance
- No practical limitations on rate of attitude changes—can be used on any hull type
- Hands-off operations—does not require operator intervention
- Web-based Human Machine Interface (HMI) through Ethernet connection
- Automatic fault isolation and system protection
- Not affected by rapid changes in external magnetic fields, ensure continuous precise position performance
- Embedded Navigation Data Distrubution System (NavDDSTM)— Receives, parses and builds specific messages and time-corrected navigation information then distributes data to other systems

### Performance

| | | |
|---|---|---|
| **Heading** | 3 arcmin * sec (Lat) RMS | 7 arcmin*sec (Lat) Peak |
| **Pitch** | 1 arcmin RMS | 3 arcmin Peak |
| **Roll** | | |
| **Horizontal Velocity** | 0.4 knots RMS (per axis) | |
| **Vertical Velocity** | 0.4 knots RMS | |
| **Position** | GPS accuracy or better<br>1 nm in 8 hours TRMS without GPS<br>1 nm in 12 hours CEP50 without GPS | |

**northropgrumman.com**


MS-196 Mar 27, 2020

NORTHROP GRUMMAN

New sensor with increased capabilities and decreased size.

### SeaFIND Dimensions

| | EU | IMU | Units |
|---|---|---|---|
| Weight | 4.9 | 5.5 | kg |
| Width | 250 | 194 | mm |
| Depth | 250 | 259 | mm |
| Height | 127 | 140 | mm |

### Temperature

**Operating:**

0° to 50° C (32° to 122° F)

**Storage:**

-40° to 70° C (-40° to 158° F)

**Humidity:**

95% Relative

### Shock

Designed to survive 20g, 11 msec.

### Vibration

Designed to meet MIL-STD-167-1, ISO 8728 & IEC 60945.

### EMI/RFI

Designed to meet MIL-STD-461F, ISO 8728 & IEC 60945.

### Magnetic Immunity

- L5 Gauss
- 30 Gauss storage

### HMI

User interface is web application hosted by the Electronics Unit (EU). Accessed using web browser on customer-supplied computer connected to the EU.

### Outputs

**Serial:**

Roll, Pitch, Heading, Attitude rates, System Status via RS232/422 serial ports

**Ethernet:**

Two (2) 10/100/1000 Base TX Ethernet ports

### For more information, please contact:

Northrop Grumman
Mission Systems

Phone: (434) 974-2000
Email: nmsd-maritime@ngc.com

**northropgrumman.com**


MS-196 Mar 27, 2020

NORTHROP GRUMMAN