



## Features

- Separate Electronics and Sensor Modules
- Advanced Optics and DSP Electronics for Higher Accuracy, Lower Noise and Greater Efficiency
- DSP Based Closed Loop Design for Improved Drift Stability, Higher Linearity and Greater Flexibility
- Versions with Internal Calibration Including Thermal Effects Can Be Made Available
- 500 Hz Bandwidth
- Customizable Performance for a Wide Range of Applications

## Specifications

- Drift Stability, Short Term 0.005°/hr
- Drift Stability, Long Term 0.01°/hr
- Noise 0.0015°/√hr
- Scale Factor Stability: 50 ppm
- Scale Factor Linearity: 25 ppm
- Maximum Rate 1,000°/sec
- Size: Sensor 3.3"Dx1.0"; Electronics 3.2" x 3.2" x 0.8"
- Digital I/O
- +5V Power

## Precision Fiber Optic Gyroscopes

EMCORE's long standing leadership in development of highly-accurate defense and military grade fiber optic components and systems is what makes the EMP-1.2K a clear choice when selecting solid-state precision gyroscope components. With fully integrated optics and electronics, the EMP-1.2K is a superior device in regards to weight and form-factor. It features advanced optics and digital signal processing (DSP) for much higher accuracy, lower noise and greater efficiency. The integrated DSP also improves optical drift stability, higher linearity and greater environmental flexibility. Additionally, the unit can be calibrated internally for better thermal effect. Separation of the electronics from the FOG's sensing coil assembly provides widest variety of installation flexibility.

## Suitable for Demanding Applications

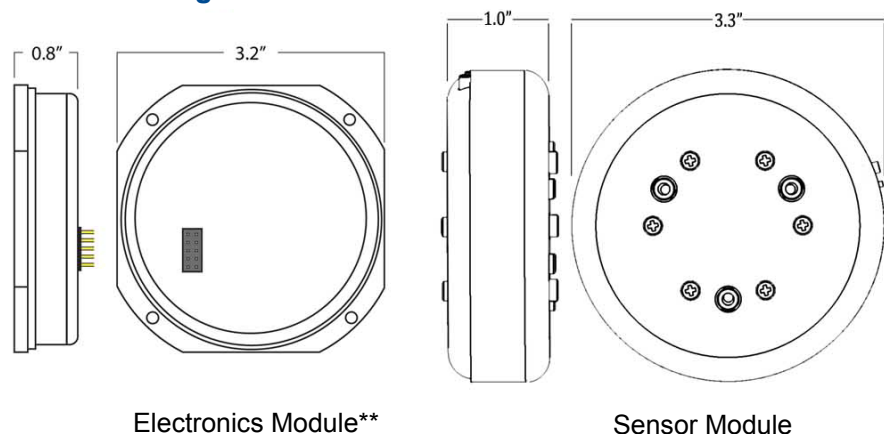
The EMP-1.2K's low drift and noise makes this gyro ideal for demanding applications such as:

- Precision Navigation (1 mile/hr without GPS)
- Fast, Precise Gyrocompassing to milli radian
- Low noise line-of-sight stabilization and control

## Customizable Gyroscope Platform

EMP FOG technology is cost effective and customizable for a wide range of applications encompassing drift rate and noise from 0.001°/hr and 0.0005°/√hr respectively.

## Mechanical Diagram



\*\*The electronics module form factor may be customized for particular applications.

US Patent No. 7,746,476.