One Idealphotonics Technology Company

FOG600H HIGH grade precious Closed-loop Fiber Optic Gyroscope



FOG600H is one Best performance FOG device designed by FOGPhotonics,inc;Operating at the wavelength of 1550nm,this waveband the light transmiss with the lowest insertion loss. The gyro ASE light source has a high output power together with the good wavelegth stability. All of these factors determine FOGPhotonics developed this commercial fiber optic gyroscope. This state-of-the-art closed loop fiber optic gyroscope (FOG) designed and developed entirely in-house can meet most of the applicaions and the accuracy the customer's require. The FOGPhotonics delivers superior precision and reliable performance at lower cost and smaller size than other comparable gyros, especially other FOGs.

The performance of gyros and systems can be optimized for specific requirements and applications on an individual basis. FOGs can be supplied as a stand alone single axis, or as a dual/ triad with common electronics. All FOGs are available with a flexible interface configuration.

Product feathures

Closed loop fiber optic gyroscope

High accuracy, low noise sensor

All "Solid State" containing no moving parts

Digital and/or Analog output Available as 1 -2-3-4 axes configuration

High resolution Low latency Lightweight package

Temperature modeled Reduced magnetic sensitivity

Provisions for extra processing capabilities

Ruggedized packaging

Great performance with harsh dynamic conditions

Applications

The FOG solutions are versatile and suitable for a wide variety of demanding applications such as:

- Navigation
- Missile and Torpedoe guidance
- Flight controls
- UUV/UAV/ Target Drones guidance and control
- Gyro compassing / target acquisition systems
- Camera/mapping

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- AHRS
- Motion compensation
- EO/FUR/Radar stabilization
- Line-of-sight tracking / Precision pointing

Specifications

Parameter	Units	FOG600H
Angular Random Walk (noise)*	°⁄ ⁄ hr	0.0005
Biasstability	°/hr	≤0.008(10s,1σ) ≤0.004(100s,1σ)
Bias Repeatability (day to day)	°/hr(1σ)	0.01
Scale factor repeatability	ppm(1 <i>o</i>)	⊴20
Scale Factor Non-Linearity (max rate, 25°C)	ppm,(1 0)	≤10(Fulltemperature)
Dynamic Range (Angular Rate)	⁰ /sec	±500
Band width	HZ	>100
Dimension	mm	120x120x38
Weight	g	<900
Operation temperature	$^{\circ}$ C	-40-+71
Storage temperature	$^{\circ}\! \mathbb{C}$	-55-+85
Shock	g	20 g, 11 msec, sawtooth
Vibrations	g	4.2g(20-2000HZ)
Interface		RS422 Or OEM
Powersupply	V	±5V
MTBF	Hours	20000
Baud Rate	Kbps	Typ 460.8kbps (User selectable 9.6 Kbps to 921.6 Kbps)
Data Rate	Hz	Typ 500Hz (User Selectable 1 to 1000 Hz)

Note:

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^{*} Random Walk determined by Allan variance method