

# GS-FOG70A

Closed-loop fiber optic gyroscopes

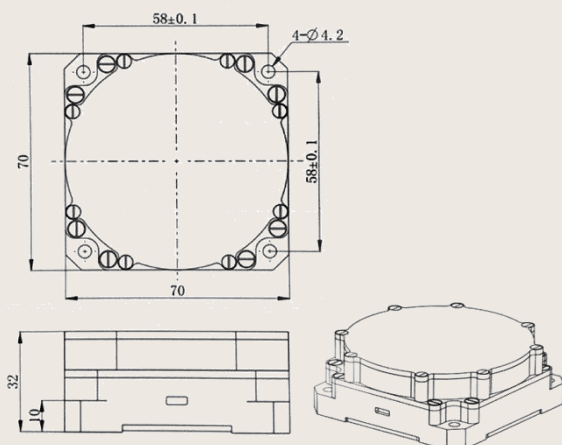


Gran Stal Solutions Ltd.



## Key Features

- + **Small package size, high stability and more resistance to interference**
- + **Designed and tested to safety standards**
- + **ARW(Angle Random Walk) to  $0.002^\circ / h^{0.5}$**
- + **Asynchronous RS-422 protocol**
- + **Excellent shock, vibration, and thermal performance**



## Compact and Innovative Package

GS-FOG70A is a complete gyro system which comprises a fiber optic sensing assembly and analog processing electronics. The series features ultra-compact lightweight design combined with super shock and vibration immunity. It has been designed from the ground up for mission critical control applications where reliability is very important. The hardware is protected from reverse polarity, overvoltage, surges, static and short circuits on all external interfaces.

## Suitable for Demanding Applications

GS-FOG70A is a small, lightweight, high performance closed loop fiber optic gyro, suited for stabilization and positioning systems for such platforms as high-speed gimbals, antennas, laser pointing, high-definition cameras, and other optical and sensor systems requiring high-performance motion-sensing and control.

# GS-FOG70A

## FEATURES

- Closed-loop design for improved drift stability, higher linearity, and greater flexibility
- New generation FPGA electronics
- Light weight 285 grams
- Excellent vibration and shock performance
- High Cost-Efficiency than Competing Systems

## Applications

- Navigational Grade Applications
- Guidance and control systems
- Aeronautics and Aviation
- Unmanned Aerial Vehical(UAV) Guidance

## GYRO PERFORMANCE

<b>Dynamic Range</b>	$\pm 200^\circ / \text{sec}$
<b>Bias In-Run Stability</b>	$\leq 0.01^\circ / \text{hr}$
<b>Bias Repeatability</b>	$\leq 0.01^\circ / \text{hr}$
<b>Scale Factor Non-linearity</b>	$\leq 30 \text{ ppm}$
<b>Scale Factor Repeatability</b>	$\leq 30 \text{ ppm}$
<b>Scale Factor Asymmetry</b>	$\leq 30 \text{ ppm}$
<b>ARW (Angle Random Walk)</b>	$\leq 0.002^\circ / \text{h}^{0.5}$
<b>Bandwidth</b>	$\geq 150 \text{ Hz}$

## ELECTRICAL / MECHANICAL

<b>Initialization Time</b>	$\leq 1 \text{ sec}$
<b>Baud Rate</b>	460800 bps
<b>Dimensions</b>	$\Phi 70 \text{ mm} \times 32 \text{ mm}$
<b>Weight</b>	285 g / 10.01 oz
<b>Power Consumption</b>	$\leq 3 \text{ W}$
<b>Input voltage</b>	$\pm 5 \text{ V DC}$
<b>Temperature</b>	
Operating temperature	$-40^\circ \text{C}$ to $+60^\circ \text{C}$
Storage temperature	$-55^\circ \text{C}$ to $+75^\circ \text{C}$
<b>Data Interface</b>	Asynchronous Digital Output

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## China

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