

## F70HA type Medium and high precision Fiber optic gyroscope



### Introduction

The fiber optic gyroscope, as a new type of all-solid-state gyroscope, has the advantages of fast start-up, wide measuring range and high reliability. F70HA single-axis medium-high precision fiber optic gyroscope can be applied to the application requirements of medium-high precision inertial guidance systems such as land-based positioning and orientation, vehicle-mounted north finder, airborne heading and marine gyroscope compass.

### Application Scope

This manual is only applicable to F70HA type products, including performance indicators, technical conditions, external dimensions and installation and use. Among them, the technical conditions include the environmental range, electrical performance, and physical characteristics of the product.

### Main Parameters

Table 1 Main performance indicators of the product

Zero stability	$\leq 0.05^\circ/\text{hr}(1\sigma, 10\text{s})$	2h continuous test, 10s smoothing results
Stability time	<100s	
Zero drift repeatability	$\leq 0.05^\circ/\text{hr}(1\sigma)$	Calculated results from 6 tests
Random walk coefficient	$\leq 0.005^\circ/\sqrt{\text{hr}}$	
Scale factor non-linearity degree	$\leq 20 \text{ ppm}(1\sigma)$	room temperature
Scale factor repeatability	$\leq 20 \text{ ppm}(1\sigma)$	room temperature
Full temp scale factor repeatability	$\leq 300 \text{ ppm}(1\sigma)$	$-40^\circ\text{C} \sim +60^\circ\text{C}$
Dynamic range	$\pm 400^\circ/\text{s}$	
Magnetic field sensitivity	$\leq 0.02^\circ/\text{hr}/\text{Gs}$	
Operating temperature	$-40^\circ\text{C} \sim +70^\circ\text{C}$	
Storage temperature	$-50^\circ\text{C} \sim +70^\circ\text{C}$	
Vibration conditions	4.2g, 20Hz ~ 2000Hz	Sweeping frequency vibration without resonance

### External Dimension Drawing

