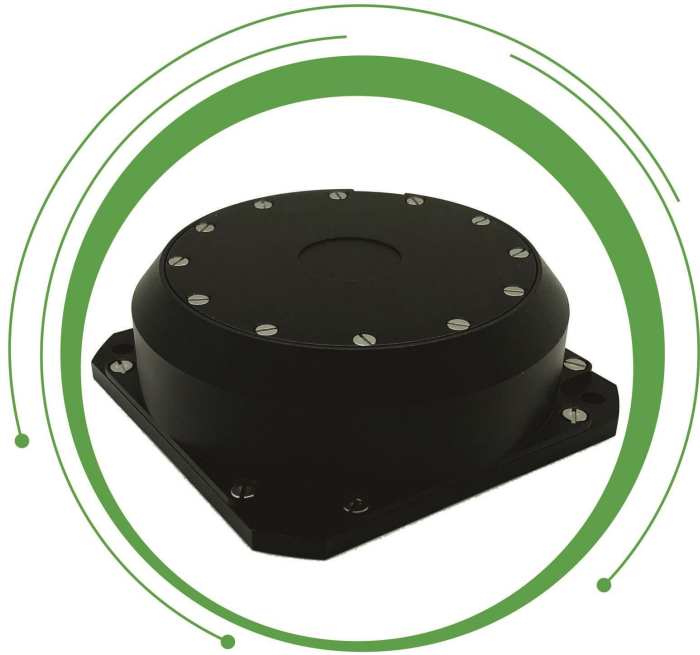


F98H type Medium and high precision Fiber optic gyroscope



Introduction

Fiber optic gyroscope (FOG) as a new type of all-solid-state gyroscope, has the advantages of fast start-up, wide measuring range and high reliability. F98H single-axis FOG can be used in the application requirements of inertial navigation systems such as land-based positioning and orientation, vehicle-mounted north finder, airborne heading and marine compass.

Application Scope

This manual is only applicable to F98H type products, including performance specifications, technical conditions, external dimensions and installation and operation. 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

	A type	B type	C type
Zero stability $^{\circ}/\text{hr}(1\sigma, 10\text{s})$	≤ 0.015	≤ 0.015	≤ 0.010
Zero stability $^{\circ}/\text{hr}(1\sigma, 100\text{s})$	≤ 0.0065	≤ 0.0055	≤ 0.0045
Stability time (s)	< 10	< 10	< 10
Room temp zero drift repeatability $^{\circ}/\text{hr}(1\sigma)$	≤ 0.015	≤ 0.015	≤ 0.010
Full temp zero drift repeatability ($^{\circ}/\text{hr}$)	≤ 0.05	≤ 0.05	≤ 0.030
Random walk coefficient $^{\circ}/\sqrt{\text{hr}}$	≤ 0.002	≤ 0.001	≤ 0.001
Scale factor non-linearity(ppm)(1σ)	≤ 10	≤ 10	≤ 10
Scale factor repeatability(ppm)(1σ)	≤ 20	≤ 10	≤ 10
Full temp scale factor repeatability(ppm)(1σ)	≤ 200	≤ 100	≤ 50
Dynamic range	$\pm 500^{\circ}/\text{s}$		
Magnetic field sensitivity	$\leq 0.020^{\circ}/\text{hr}/\text{Gs}$		
Operating temperature	$-40^{\circ}\text{C} \sim +65^{\circ}\text{C}$		
Storage temperature	$-50^{\circ}\text{C} \sim +70^{\circ}\text{C}$		
Vibration condition	4.2g, 20Hz ~ 2000Hz		

External Dimension Drawing

