F120H type high precision Fiber optic gyroscope

Introduction

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. F120H single-axis medium and high-precision fiber optic gyroscope can be applied to the application requirements of high-precision inertial guidance systems such as land-based positioning and orientation, vehicle-mounted north finder, airborne heading, marine gyroscope compass, etc.

Application Scope

This manual is only applicable to F120H 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

	A type	B type	C type
Zero stability °/hr(1σ,10s)	≤0.01	≤0.007	≤0.006
Zero stability °/hr(1σ,100s)	≤0.004	≤0.003	≤0.002
Stability time (s)	<10	<10	<10
Room temp zero drift repeatability °/hr(1σ)	≤0.01	≤0.007	≤0.006
Full temp zero drift repeatability (°/hr)	≤0.05	≤0.05	≤0.030
Random walk coefficient °/$\sqrt{hr}$	≤0.002	≤0.001	≤0.001
Scale factor non-linearity(ppm) (1σ)	≤10	≤10	≤10
Scale factor repeatability(ppm) (1σ)	≤10	≤10	≤10
Full temp scale factor repeatability(ppm) (1σ)	≤100	≤100	≤50
Dynamic range	±500°/s		
Magnetic field sensitivity	≤0.020°/hr/Gs		
Operating temperature	-40℃ ~ +65℃		
Storage temperature	-50℃ ~ +70℃		
Vibration condition	4.2g,20Hz ~ 2000Hz		

External Dimension Drawing