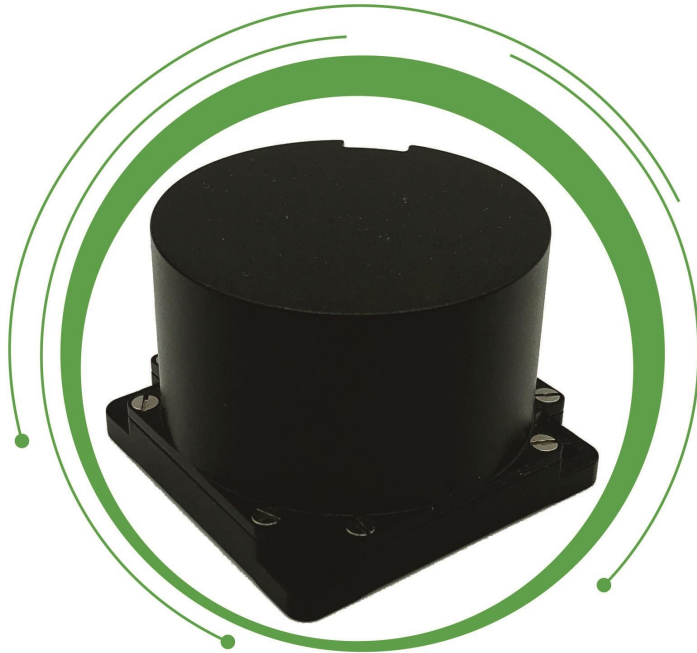


F50 type Low to medium precision fiber optic gyroscope



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. F50 single-axis low and medium precision fiber optic gyroscope can be applied to the application requirements of medium and 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 F50 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 $^{\circ}/\text{hr}(1\sigma, 10\text{s})$	≤ 0.30	≤ 0.20	≤ 0.10
Stability time s	< 10	< 10	< 10
zero drift repeatability $^{\circ}/\text{hr}(1\sigma)$	≤ 0.30	≤ 0.20	≤ 0.10
full temp zero drift repeatability $^{\circ}/\text{hr}$	≤ 1	≤ 0.5	≤ 0.3
random walk coefficient $^{\circ}/\sqrt{\text{hr}}$	≤ 0.02	≤ 0.02	≤ 0.01
scale factor non-linearity degree ppm(1σ)	≤ 100	≤ 50	≤ 50
scale factor repeatability ppm(1σ)	≤ 100	≤ 50	≤ 50
dynamic range	$\pm 500^{\circ}/\text{s}$		
Magnetic field sensitivity	$\leq 0.10^{\circ}/\text{hr}/\text{Gs}$		
Operating temperature	$-40^{\circ}\text{C} \sim +70^{\circ}\text{C}$		
Storage temperature	$-50^{\circ}\text{C} \sim +70^{\circ}\text{C}$		
Vibration condition	4.2g, 20Hz \sim 2000Hz		

External Dimension Drawing

