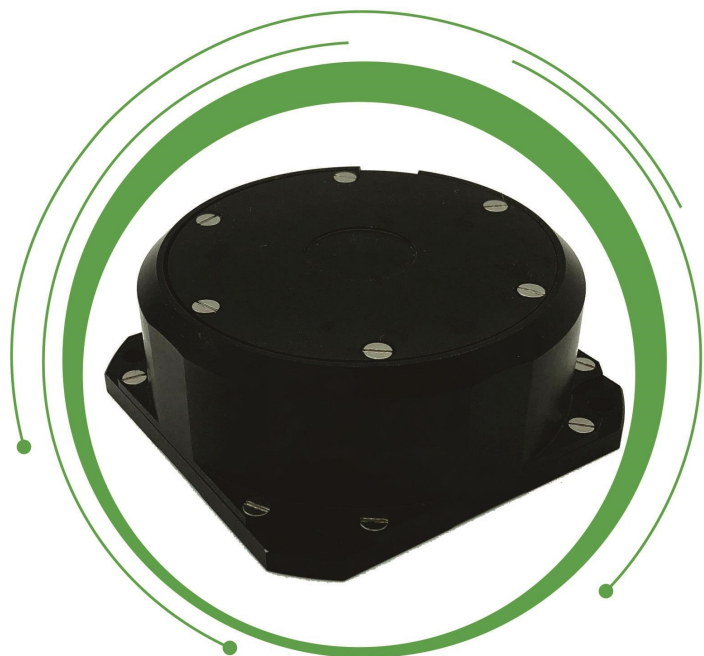


F80 type Medium and high precision Fiber optic gyroscope



■ Introduction

Fiber optic gyroscope as a new type of all-solid-state optical gyroscope, using 1310 or 1550 scheme, has the advantages of fast start-up, wide measurement range and high reliability. F80 type single-axis medium-high precision fiber optic gyroscope instrument can be applied to the application requirements of medium-high precision inertial guidance system such as land positioning orientation, vehicle-mounted north finder, airborne heading, marine gyroscope compass, etc.

■ Application Scope

This manual is only applicable to F80 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

	1310	1550	
Zero stability	$\leq 0.02^\circ/\text{hr}(1\sigma, 10\text{s})$		2h continuous test, 10s smoothing results
Zero stability	$\leq 0.01^\circ/\text{hr}(1\sigma, 100\text{s})$		2h continuous test, 100s smoothing results
Stability time	<10s		
Zero drift repeatability	$\leq 0.02^\circ/\text{hr}(1\sigma)$		Calculated results from 6 tests
Full temp zero drift repeatability	≤ 0.05		
Random walk coefficient	$\leq 0.005^\circ/\sqrt{\text{hr}}$		
Scale factor non-linearity degree	$\leq 10\text{ppm}(1\sigma)$		room temperature
Scale factor repeatability	$\leq 10\text{ppm}(1\sigma)$		room temperature
Full temp scale factor repeatability	≤ 200	$\leq 100\text{ppm}(1\sigma)$	$-40^\circ\text{C} \sim +60^\circ\text{C}$
Dynamic range	$\pm 500^\circ/\text{s}$		
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

