Dual-axis fiber optic gyroscope-DG-20A

出线位置 **Product** dimensions

DG-20A dual-axis fiber optic gyroscope is a full solid-state high-precision digital closed-loop medium and low dual-axis fiber optic gyroscope integrating optics, mechanics and electricity. Based on the principle of Sagnac, it is composed of SLD light source, fiber coupler, photo-detector, integrated optical phase modulator, fiber sensing-ring, circuit and structure. It is specially designed for the servo stable platform, and has the characteristics of small volume, high update rate, low delay, low noise, high bandwidth and so on. It is an ideal choice for low-and medium-precision angular rate sensors, and can be widely used in various types of stable platforms.

■Product features

Single 5V power supply, extremely low power consumption, excellent all-temperature performance, excellent start-up performance, the nominal index can be reached when the power is turned on, and no preheating is required, excellent environmental adaptability, strong impact and vibration resistance, interference fringe recognition technology, supporting full dynamic range cold start, high reliability, no dead zone.

■ Typical applications Photoelectric platform, radar stabilization platform, satcom on the move system, seeker, scouting

Performance indicators				
Turn-on time(s)	3	Scale factor non-linearity(PPM)	≤50	
Dynamite range(s)	±500	Scale factor asymmetry(PPM)	≤10	
Zero position (h)	≤1	Scale factor repeatability (PPM)	≤20	
Bias stability (°/h,1o,10S)	≤1	Threshold(h)	≤0.3	
Bias stability at variable temperature (h,1o,1°C/min)	≤0.3	Resolution (°/h)	≤0.3	
Bias repeatability(h,1o)	≤1	Bandwidth(Hz)	≥500	
Random walk (9/h 1/2)	≤0.1			

Physical/Electrical		Environmental adaptability	
Power supply	+5V	Operating temperature	-45°C~+70°C
Steady-state power consumption	≤3W	Storage temperature	-55°C~+80°C
Steady-state power consumption at full temperature	≤4W	Vibration	6.06g(RMS),20Hz-200 0Hz
Instantaneous electric current at startup	≤1.5A	Impact	30g,6ms-8ms
Dimensions	64×60x40mm	Average trouble-free time	8000h
Weight	170g±10g		
Electrical form	RS422		