

FIBER OPTIC GYROSCOPE

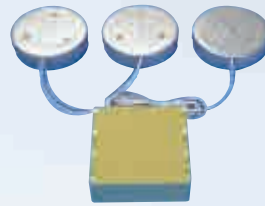
BEIJING AUTOMATION CONTROL EQUIPMENT INSTITUTE



• SFOG-02



• TFOG-12



• TFOG-01

Overview of product

As one of the earliest manufacturers who develops fiber optic gyroscope in China, our technical level is in leading position in the industry. It is also the manufacturer who has made own fiber optic gyroscope realize the first domestic product finalization and batch production. It has been awarded the 2nd Prize of the National Sci-Tech Advance Award for the manufacturing technology of fiber optic gyro. For the product of fiber optic gyro, we has completely proprietary intellectual property and perfect design & manufacturing capabilities to ensure stable product quality. With many years of development, we can produce the series products of single-axis gyroscope and multi-axis gyroscope unit with precision coverage of 0.01 deg/h to 10 deg/h.

Technical characteristics

High-quality, high-reliability design and manufacturing technology based on military products; passing application tests of various environments (sea, land, air, and aerospace); verified long-stability and life-support technologies.

Field of application

Carrier attitude measurement, petroleum drilling inclination measurement, track detection, pipeline measurement, platform/antenna stabilized device, and seeker control.

FIBER OPTIC GYROSCOPE

BEIJING AUTOMATION CONTROL EQUIPMENT INSTITUTE

Single Axis Gyroscope	SFOG-02	SFOG-01	SFOG-04
Performance			
Bias stability[deg/h, 1σ]	≤1	≤0.5	≤0.1
Bias repeatability[deg/h, 1σ]	≤1	≤0.5	<0.1
Random walk[deg/sqrt(h)]	≤0.1	≤0.05	≤0.01
Threshold[deg/h]	≤1	≤0.5	≤0.1
Scale factor non-linearity[ppm]	≤200	≤100	≤50
Scale factor repeatability[ppm]	≤200	≤100	≤50
Operating range			
Measurement range (deg/s)	-2000 to +2000	-1000 to +1000	-500 to +500
Threshold (deg/h)	≤1	≤0.5	≤0.1
Bandwidth (Hz)	>500	>500	>500
Operating temperature (°C)	-45 to +65	-45 to +65	-45 to +65
Storage temperature (°C)	-55 to +85	-55 to +85	-55 to +85
Vibration operating	2000 Hz without resonance	2000 Hz without resonance	2000 Hz without resonance
Shock (g)	80(11ms)	80(11ms)	80(11ms)
Electrical			
Power supply[VDC]	+5	+5	-5, +5
Power consumption[W]	≤5	≤5	≤5
Interface	RS-422	RS-422	RS-422
Syn signal	TTL	TTL	TTL
Physical			
Dimensions (mm)	52x52x39	70x70x29	Φ120x35
Weight (grams)	≤160	≤200	≤550

BACEI

www.bacei.cn