2-Axis MEMS Rate Gyroscope

Introduction

The ER-2MG-202 is a two axis MEMS gyroscope, the pitch and heading of the carrier can be measured in real-time, and the angular rate can also be output in real-time. It has the advantages of small size, low power consumption, light weight and good reliability. The products can also meet the application requirements of the corresponding fields. That is, it can replace traditional rate gyros, including DTG and semi-liquid floating gyros.

Application

Measure the angular rate of pitch and roll of the carrier and output it in real-time

Features

Short startup time

Digital or analog output (optional)

Small size, low power consumption, light weight, simple interface, easy to install and use

Output the measured value of two axial angular rate of carrier independently, continuously

Measure the angular rate of pitch and heading of the carriers and output it in real-time

Specifications

No.	Parameters	Indicator		
		A	B	C
1	Bias (°/s)	≤0.01	≤0.02	≤0.05
2	Bias repeatability (°/h)	≤10	≤15	≤25
3	Bias stability (°/h)	≤10 (1σ)	≤15 (1σ)	≤25 (1σ)
4	Measurement range (customizable)	±100°/s	±100°/s	±100°/s
5	Scale factor non-linearity	≤0.02%	≤0.02%	≤0.1%

6	Resolution	≤0.005°/s	≤0.005°/s	≤0.02°/s
7	Start up time	≤1s	≤1s	≤1s
8	Cross-coupled	≤±0.5%	≤±0.5%	≤±1%
9	Bandwidth	200HZ	150HZ	150HZ
10	Replacement rate	2000Hz		
11	Voltage (DC)	DC+5V±0.3V		
12	Electric current	≤0.1A		
13	Power dissipation	≤0.5W		
14	Operating temperature	-45℃~+65℃		
15	Storage temperature	-55℃~+70℃		
16	Weight	Gyro≤50g		
17	Polarity	The product rotates around the positive direction of the input axis, counter clock rotation, the output is negative, if clockwise rotation, the output is positive.		

Mechanical interface

Dimension: Φ25.3×30.5mm.