

BS-FC095-370-A1ES

Micro-FOG Technical

Manual

# BS-FC095-370-A1ES Micro-FOG Technical Manual

## 1 Product Introduction

### 1.1 Principal and Characteristics

BS-FC095-370-A1ES micro-fiber-optic gyro (FOG) is an integrated angular rate sensor. It is based on the Sagnac effect and incorporates a variety of micro- and nano-fiber optic devices to realize the detection of the phase difference generated by two beams of light propagating in opposite directions.

This product features a simple structure, no moving parts, no wear parts, fast start-up, small size, and lightweight. It can be applied to motion measurement and control.

### 1.2 Specifications

Table 1 Specification

No.	Attribute	Value
1	Input Range ( $^{\circ}/s$ )	$\pm 370$
2	Scale Factor ( $mv/^{\circ}/s$ )	$11 \pm 1.5$
3	Bias Stability (10s, $1\sigma$ , $^{\circ}/h$ )	$\leq 1.5$
6	Angular random walk ( $^{\circ}/\sqrt{h}$ )	$\leq 0.05$
7	Start-up time (s)	$\leq 1$
8	Bandwidth (-3dB) (Hz)	$\geq 450$
9	Operating Temperature ( $^{\circ}C$ )	$-40 \sim +70$
	Storage Temperature ( $^{\circ}C$ )	$-55 \sim +85$
10	Input Voltage (V)	$5 \pm 0.15$
11	Power consumption (W)	$\leq 1$
12	Dimension (mm)	$60 \times 35 \times 25.5$
13	Weight (g)	$\leq 70$

## 2 Interface

### 2.1 Mounting interface

The bottom side is the mounting surface with four M3 threads for mechanical connection to the outside.

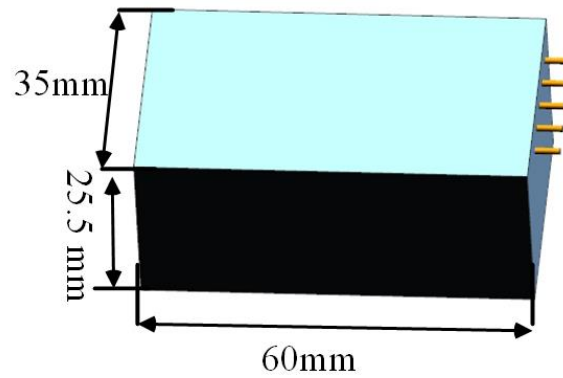


Fig. 1 Product dimensions

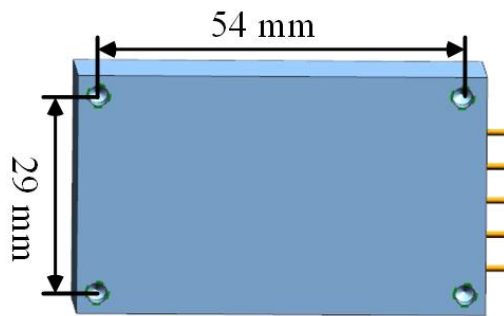


Fig. 2 Mounting dimensions

### 2.2 Electrical interface

Connection method: solder pads as shown below

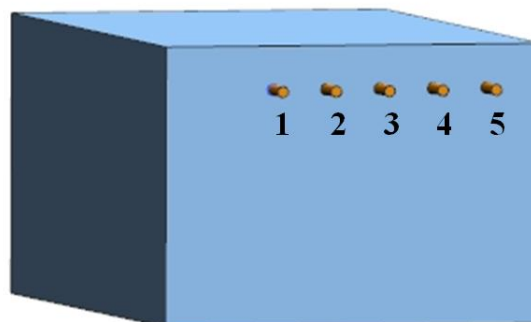


Fig.3 Electrical connection

Table 2 Solder pads definition

No.	Definition
1	TS ( $T = (TS - 750) / 10 + 25$ )
2	5V
3	AGND
4	OUT
5	GND

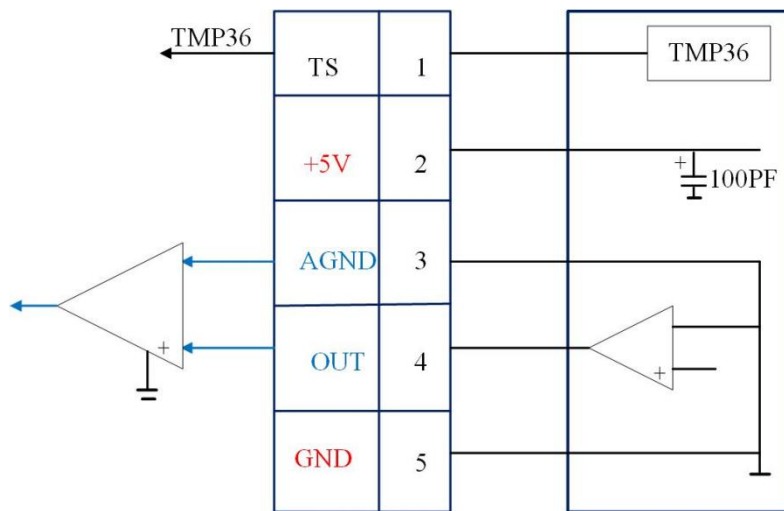


Fig4 Connection diagram

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