



NSOG3G70



1 Product overview

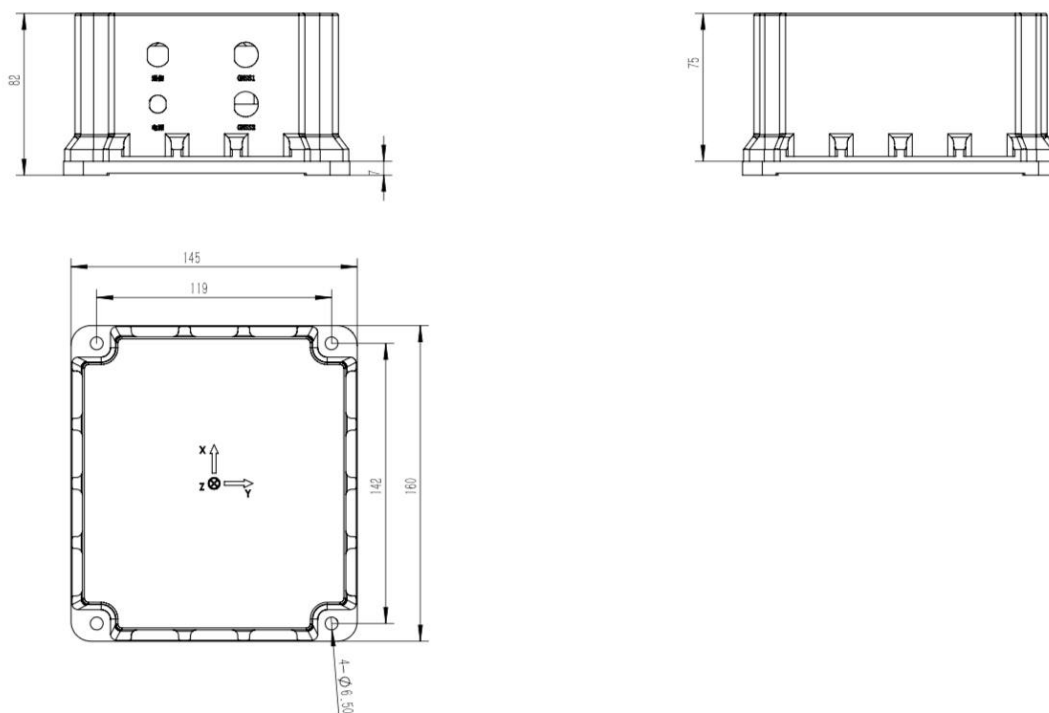
Fiber optic gyro is a new type of all-solid state gyroscope with the advantages of fast start, wide measurement range and high reliability.

Among them, NSOG3G70 fiber optic gyro is a new product designed for the needs of medium precision application background. It adopts the three-axis sharing technology design, which has the characteristics of low cost, stable performance, simple structure and convenient installation.

NSOG3G70 can output high-speed carrier movement Angle rate information, which is widely used in a variety of vehicle, ship, ship-borne airborne fields, and small missiles and other fields.



2 Dimensions



3 Characteristics

Indicator items	Qualification			Unit
Accuracy Model	A	B	C	
Start time	5	5	5	s
Zero position	≤ 0.5	≤ 0.5	≤ 0.5	$^{\circ}/h$
Zero bias stability at Constant temperature (10s smoothing)	≤ 0.05	≤ 0.03	≤ 0.02	$^{\circ}/h$
Zero bias stability at Variable temperature (1 $^{\circ}C/min$, 100s smoothing)	≤ 0.15	≤ 0.12	≤ 0.10	$^{\circ}/h$
Zero bias repeatability	≤ 0.050	≤ 0.03	≤ 0.03	$^{\circ}/h$
Random walk coefficient	≤ 0.002	≤ 0.002	≤ 0.001	$^{\circ}/\sqrt{h}$
Zero bias magnetic sensitivity	≤ 0.005			$^{\circ}/h/G$
Scale factor nonlinearity	≤ 20			ppm
Scale factor asymmetry	≤ 20			ppm
Scale factor repeatability	≤ 20			ppm



Threshold	≤ 0.01	°/h
Resolution	≤ 0.01	°/h
Bandwidth	200	Hz
Working temperature	-45~+65	°C
Storage temperature	-55~+80	°C
Dynamic range	± 300	°/s
Supply voltage	5	V
Steady state power consumption	≤ 5.5	W
Steady state power consumption at full temperature	≤ 10	W
Start instantaneous current	< 2	A
Weight	1400	g

4. Communicating protocol

Baud rate: 921600, contingency bit, 1 stop bit, trigger

Send data protocols

Byte	Name	value	Change	type
1	Frame header bytes 1	0x80		uchar
2~5	X axis gyro	32bit low in the front high in behind		signed int32
6~9	Y axis gyro	32bit low in the front high in behind		signed int32
10~13	Z axis gyro	32bit low in the front high in behind		signed int32
14,15	X axis gyro temperature	16bit low in the front high in behind	1/16	signed int16
16,17	Y axis gyro temperature	16bit low in the front high in behind	1/16	signed int16
18,19	Z axis gyro temperature	16bit low in the front high in behind	1/16	signed int16
20	check sum	2~19 Checksum		uchar



5. Wiring definition

The J30-15 ZKP socket is defined in Table 1.

Table 1 Electrical characteristics of the gyro output socket

No.	Connection definition	Tab	Color
1	Serial port T+	TX+	yellow
2	Serial port T-	TX-	orange
3	Serial port R+	RX+	blue
4	Serial port R-	RX-	green
5、13	Power + 5V	+5V	red
6、7	Power Ground	GND	black