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Fiber Optic Gyroscope Fog Mems Gyroscope and Accelerometer

JIO-100B0 integrated navigation system has built-in high-performance MEMS gyroscope and accelerometer.And satellite navigation module, can achieve outdoor high-precision attitude, speed, position Measurement. Welcome to buy Fiber Optic Gyroscope Fog Mems Gyroscope and Accelerometer from us.

Fiber Optic Gyroscope Fog Mems Gyroscope and Accelerometer Features

JIO-100B0 integrated navigation system has built-in high-performance MEMS gyroscope and accelerometer.And satellite navigation module, can achieve outdoor high-precision attitude, speed, position Measurement.

JIO-100B0 With multi-sensor fusion capability, it can be integrated with external odometers, speedometers, etc.The information is fused to maintain the navigation accuracy when GNSS is invalid.

JIOPTICS installation of fiber optic gyroscope to provide ease of integration flexibility, and our developers toolkit to rapid prototyping, not only meet the specification requirements, also provide high-quality performance meet the demand of end users.

Our services

JIOPTICS is a professional and efficient team. Provide OEM/ODM services for you, contact us to customize your exclusive fiber optical gyroscope

Product Features

-0.1° attitude accuracy, 2m positioning accuracy
- Capable of external auxiliary sensor fusion

Tel:+86-13570832601 **Email:**sales@jioptics.com

- Operating temperature range: -40℃~+60℃
- Very high shock and vibration resistance
- IP65 sealed enclosure for harsh environments
- Rich interfaces, support RS232, RS422, CAN and other standard interfaces
- High reliability

Electrical Characteristics

- Power supply: 5V (typ)
- Rated power: 3W (max)
- Ripple: 100mV (peak-to-peak)

Electrical characteristics

-Delectrical power supply: 24V DC (typical value)
-Reze power: 1.5W (maximum value)
-The ripple: 100mv (peak value)

Application scenarios

By matching software for different application scenarios, the product can be widely used in construction machinery Intelligent tracking and positioning, unmanned system automatic driving, large-scale equipment positioning management, commercial industrial drones, etc.

Mechanical Dimensions

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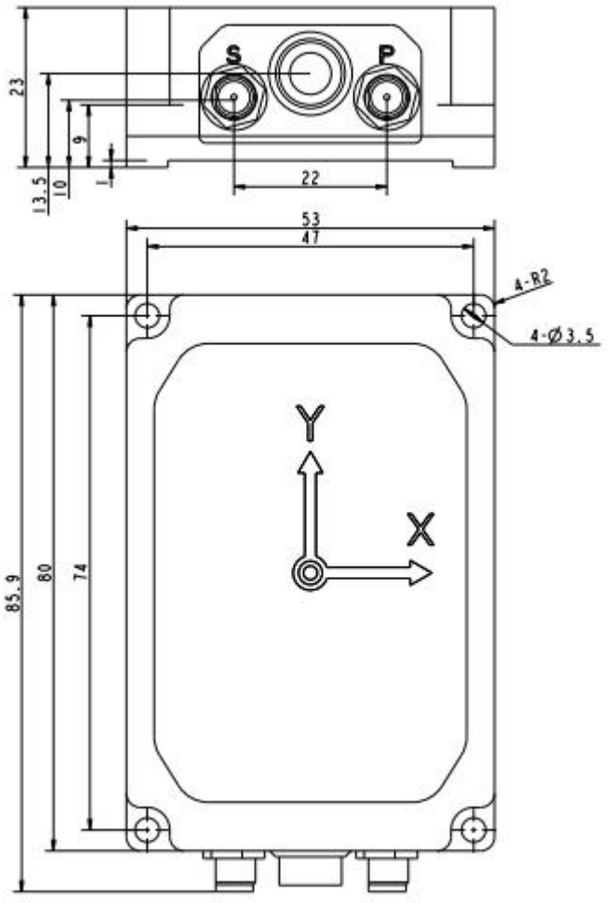

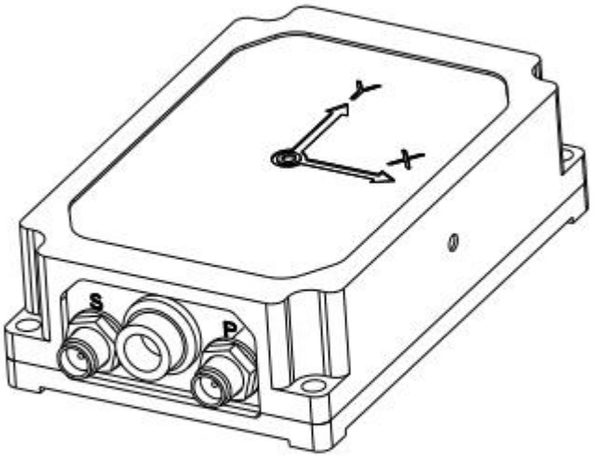

Technical parameters

Attributes	Parameter	Index	Remark
Heading accuracy	Dual GNSS	0.1°	2m Baseline
	Single GNSS	0.2°	Need to maneuver
	Post-processing	0.03°	
	Maintain precision	0.2°/min	GNSS failure
Attitude accuracy	GNSS efficient	0.1°	Single point L1/L2
	Inertia/Odometer Combo	0.1° (RMS)	Optional
	Post-processing	0.02°	
	Maintain precision	0.2°/min	GNSS failure
	V-G mode	2°	Unlimited GNSS failure time, no acceleration
Horizontal positioning	GNSS efficient	1.2m	Single point L1/L2

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accuracy		2cm+1ppm	RTK
	Inertia/Odometer Combo	2‰D (D means mileage, CEP)	Optional
	post-processing	1cm+1ppm	
	GNSS failure	20m	Failure 60s
Horizontal speed accuracy	GNSS effictive	0.1m/s	Single point L1/L2
	Inertia/Odometer Combo	0.1m/s (RMS)	Optional
	Inertia/DVL combination	0.2m/s (RMS)	Optional
Gyro	Measuring range	±450°/s	
	Zero bias stability	2°/h	Allan variance
Accelerometer	Measuring range	±16g	Custom 200g available
	Zero bias stability	30μg	Allan variance
Communication Interface	RS232	1 channel	Optional 1 channel RS422, 1 channel RS232
	RS422	1 channel	Or 2 channel RS422, 1 channel CAN
	CAN	1 channel	
	Odometer differential input	1 channel	optional
	PPS output	1 channel	optional
	EVENT input	1 channel	optional
Electrical Characteristics	Voltage	5~36V DC	
	Power consumption	≤3W	
	Ripple	100mV	P-P
Structural properties	Size	80 mm × 53 mm × 23 mm	
	Weight	≤150g	
Use environment	Operating temperature	-40℃~+60℃	
	Storage temperature	-45℃~+65℃	
	Vibration	20~2000Hz，6.06g	
	Impact	30g，11ms	
	Protection class	IP65	

Reliability	MTBF	30000h	
	Lifetime	>15 years	
	Continuous working time	>24h	