

JIOPTICS

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Fiber Optic Gyroscope FOG Strapdown Inertial Navigation

JIO-FOGD98A model inertial navigation device is a cost-effective inertial navigation and measurement product used to measure the position, velocity, attitude, angular rate and acceleration of the carrier. The device is developed using cost-effective fiber optic gyro and quartz accelerometer, and its performance is guaranteed by high accuracy calibration and compensation of the system. The device is designed according to military standards, and the electromagnetic shielding, thermo-balance, and sealing are fully considered to guarantee excellent environmental performances. Welcome to buy Fiber Optic Gyroscope FOG Strapdown Inertial Navigation from us.

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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

Features

- Cost-effective fiber optic gyro and quartz accelerometer
- Optional static or moving base self-alignment
- Error parameters calibration and compensation in full temperature range

Tel: +86-13570832601

Email: sales@jioptics.com

Optional diverse input interfaces for GNSS/Odometer/DVL
Configurable navigation modes
Excellent environmental suitability
Military standards

Applications

Compass for sea vehicle
Under-water vehicle navigation and positioning
Positioning and north-finding for land vehicle
Stabilization and control for moving carrier
Attitude measurement

Specification

| | | |
|----------------------------|------------------------|--|
| Performances | Start - Up Time | 5min |
| | Inertial Position | 1nm/h, CEP 50 |
| | Inertial Velocity | 1m/s, 1 σ |
| | Inertial Attitude | 0.01deg, 1 σ |
| | Inertial Heading | 0.06 \times sec(Lat) deg, 1 σ |
| | Heave | 5cm or 5% |
| Input Ranges | Angular Rate | \pm 400deg/s |
| | Acceleration | \pm 20g |
| Work Environment | Work Temperature | - 10 $^{\circ}$ C~+55 $^{\circ}$ C |
| | Storage Temperature | - 55 $^{\circ}$ C~+85 $^{\circ}$ C |
| | Vibration | 0.04g ² /hz @ 20~2000hz |
| | Shock work / no damage | 30g @ 6ms/50g @ 11ms |
| Electrical Characteristics | Work Voltage | 18~36VDC |
| | Consumption | \leq 15W |
| | Communication | RS422/RS232/CAN/Ethernet |
| Physical Characteristics | Size (W x D x H) | 280 \times 136 \times 150 mm |
| | Weight | \leq 6.8kg |