

FG-1200-A/B Multi Connections FOG Inertial Navigation System



Introduction

FG-1200 Fiber optic inertial navigation system is a medium precision inertial measurement equipment with high performance but cost-effective. It uses model 120 interferometric fiber optic gyroscope and quartz flexible accelerometer as inertial sensor. It can provide real-time high precision three-dimensional attitude angle (true North heading angle, pitch angle and roll angle), carrier angular velocity (azimuth velocity, horizontal velocity and vertical velocity), instantaneous displacement (heave, surge and sway) for carrier. This system also offers medium precision positioning information for carrier without external sensors. FG-1200 guarantees system accuracy through high precision error calibration and full temperature compensation technology. It adopts electromagnetic shielding design, thermal balance design, vibration mode design, sealing design and strict manufacturing process to ensure excellent environmental adaptability.

Application

- Navy ship
- ROV & UAV
- Land Army Pointing & Targeting
- Platform

Features

- High performance FOG
- Combat Proven
- AHRS+INS in a single unit
- Anti-disturbance self-alignment while moving
- Rich in connections, GPS/GNSS/Speed LOG DVL/USBL
- Input acceptable
- Configurable navigation mode: INS/Integrated Navigation
- Perfectly suited for all types of carriers

Specifications

		FG1200-A	FG1200-B
Heading(RMS)	Without Aiding	≤0.05deg	≤0.01deg
	With Aiding	≤0.02deg	≤0.008deg
Roll & pitch	Without Aiding	≤0.05deg	≤0.01deg
	With Aiding	≤0.02deg	≤0.008deg
Position(CEP)	Inertial without Aid	≤2nm/1h	≤1nm/1h
	With GPS	≤2m	≤2m
	Speed log	≤1nm/1h	≤2nm/8h
	Electromagnetic Log	≤1.5nm/1h	≤3nm/8h
Setting time	Odmeter	≤0.5%D	≤0.25%D
	Data Availability	10 mins	10 mins
Heave & surge (RMS)	Full Attitude	30 mins	60 mins
		5 cm or 5%	2.5 cm or 2.5%
Electrical	Power supply:24VDC(18~36VDC), <20W		
	Interface:RS422/232×8,Ethernet,CAN×2,PPS×2,pulse,max output 1000Hz		
Physical	Dimension:257×199×162mm(L×W×H)		
	Weight:≤7.2Kg		
Measure Range	Velocity:±200deg/s		
	Acceleration: ±15g		
Environment	Operating Temp:-40°C~+60°C		
	Storage Temp:-55°C~+80°C		
	Vibration:0.04g2/Hz@20~2000Hz		
	Shock with working condition:30g@ms		