

Inertial Navigation System for Gyrocompass

FN 210G

FIBERPRO's Inertial Navigation System for gyrocompass purpose, FN 210G provides accurate heading, attitude and positional data for any type of surface vessel. It is ideal for customers seeking a cost-effective and reliable solution for navigation and control of commercial and defense vessels. FN 210G combines a high-accuracy FOG-based IMU and GPS receiver within a single enclosure for gyro compassing, inertial navigation, AHRS, stabilization, guidance and motion sensor that cover a wide range of applications. FN 210G consists of three axis fiber optic gyros, three axis Quartz Servo accelerometers and a strap-down processor. It provides heading, attitude, position, altitude and so on, which can be transferred by RS422(UART) at up to 200 Hz.

Features

- Highly accurate heading, roll and pitch in all dynamics
- Fast settling time of 15 minutes
- Roll, Pitch and x/y/z-rate outputs
- Solid-state, fully electronic strap-down technology
- Reliable state of the art fiber-optic technology
- Compact size and low weight
- RS422 output, multiple channels
- User-friendly operation



Applications

- Surface Vessel Navigation
- Oceanographic and hydrographic operation
- AHRS

Specifications

Performance (1 σ , PE50/CEP50)		
Heading Accuracy	INS Heading	< 0.1° • sec (LAT)
Position Accuracy	INS/GPS	< 3 m
	INS/EM-Log	< 0.2 % DT
Attitude Accuracy	Static	0.01°
	Dynamic	0.01°
Electrical/Mechanical		
Operating Voltage		9 to 36 VDC
Power Consumption		< 15 W (typ.)
Data Output Rate		Up to 200 Hz
Dimensions (L x W x H)		330 mm x 192 mm x 180 mm
Weight		< 15 kg
Operating Conditions		
Operating Temperature		- 20°C to + 55°C
Storage Temperature		- 40°C to + 80°C
Rotation Rate Dynamic Range		\pm 490°/sec
Communication		
Interface		RS422
Speed		Up to 921,600 baud
Input Port		GPS antenna, EM-log