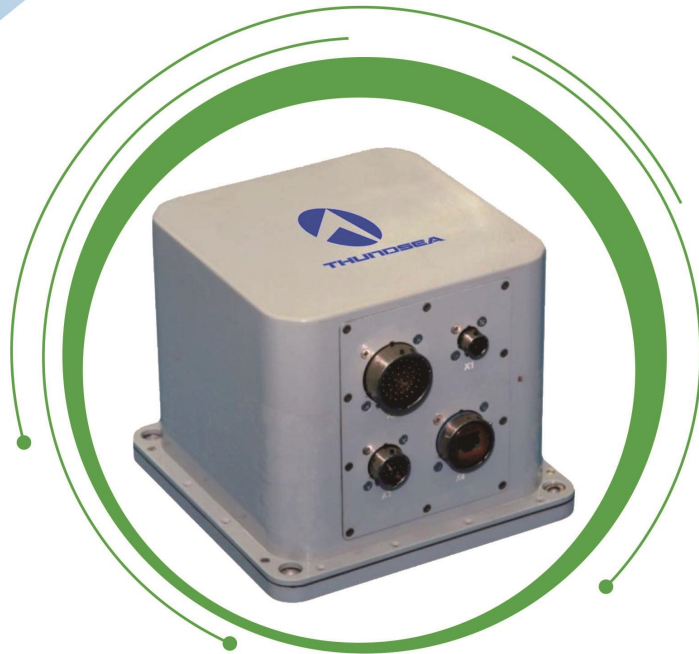


## FG-800A Model FOG Attitude and Heading Reference System



### Introduction

FG-800A model attitude and heading reference unit is an all-in-one gyrocompass and motion sensor, used to measure the position, velocity, attitude, angular rate and acceleration of the carrier. This system consists of three high cost-performance ratio fiber optic gyros, three quartz accelerometers and electric processing PCBs, fiber optic gyro to measure the attitude and accelerometer to measure the acceleration. FG-800A is designed according to military standards, and the electromagnetic shielding, thermo-balance, and sealing are fully considered to guarantee excellent performances even in extreme conditions.

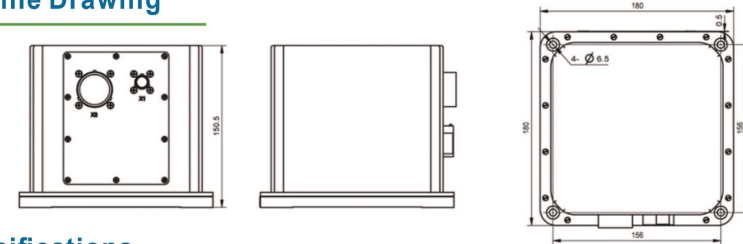
### Features

- Initial self-alignment on static or dynamic basis
- Error parameters calibration and compensation in full temperature range
- Interfaces for GNSS/Odometer/DVL
- Configurable navigation modes
- High autonomous accuracy
- Real-time heave
- Military standards

### Application

- 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

### Outline Drawing



### Specifications

Performances	Settling Time	5min
	Attitude	0.02 deg, 1 $\sigma$
	Heading accuracy	0.1 sec(Lat) , 1 $\sigma$ autonomous 0.05 °sec(Lat), with GPS aiding
Measuring Ranges	Heave	5cm or 5%
	Rotation rate	$\pm 400$ deg/s
	Acceleration	$\pm 20g$
Work Environment	Work Temperature	-40°C~+70°C
	Storage Temperature	-55°C~+85°C
	Vibration	0.04g <sup>2</sup> /hz @ 20~2000hz
	Shock	30g @ 6ms, keep accuracy 50g @ 11ms, no damage
Electrical Characteristics	Power supply	18~36VDC
	Consumption	$\leq 15W$
	Physical Characteristics	Size (W x D x H)
Weight		$\leq 4.8kg$
Water proof		IP 66
Interfaces	RS 232/RS 422 port	4 outputs/2inputs
	Ethernet port	4 outputs/ 2 inputs
	Pulse port	2 outputs/4 inputs
	Data formats	NMEA 0183, ASCII, BINARY
Reliability	MTBF	80000 hrs
	Warranty	Three years