

## ER-FINS-120 High Precision & High Performance FOG INS

### Introduction

ER-FINS-120 High Precision & High Performance FOG INS products are all strap-down inertial navigation products. The basic components of this series of inertial navigation products are composed of three optical fiber gyroscopes of corresponding grade, three quartz flexible pendulous accelerometer, navigation computer circuit, information processing circuit, current frequency conversion circuit, power changing device, structural platform/structural box and vibration damping device. This product can be used for real-time measurement of three translational information and three moving information of various aircraft or moving objects, and can output real-time navigation information such as angular increment, apparent velocity increment, attitude, speed and position of the carrier. This series of products have the characteristics of wide dynamic working range, strong adaptability to the environment and comprehensive navigation information.

### Specifications

Product profile number	ER-FINS-120
Boundary dimension	200×200×180 mm
Installation dimensions	4-Φ8, Installation of central
Weight	≤10.0Kg
Power supply	18V~36V
Power consumption	≤150W
Start time	≤1s
Steady working hours	≤5min
Alignment time	≤5min
Find north precision (1σ)	≤0.01°

Speed accuracy ( $1\sigma$ )	$\leq 0.05\text{m/s}$
Attitude accuracy ( $1\sigma$ )	$\leq 0.01^\circ$
Positional accuracy ( $1\sigma$ )	$1.0\text{nm/2h}$
Acceleration measurement range	$-30\text{g}\sim+30\text{g}$
Angular velocity measurement range	$-300^\circ/\text{s}\sim+300^\circ/\text{s}$
Working temperature	$-45^\circ\text{C}\sim+65^\circ\text{C}$
Vibration environment	6.6Grms, 5Hz~2000Hz
Shock environment	120g, 4ms (1/2sin)
MTBF	$\geq 100000\text{h}$
Working life	20years