



BS-FN300C-M-D6EC is an inertial navigation system (INS) based on fiber-optic gyroscopes and MEMS accelerometers

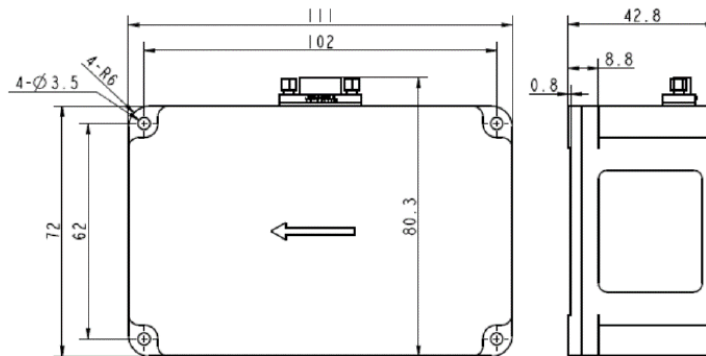
- Compact size
- Can receive the external GNSS data
- High ability to maintain the accuracy of pure inertial navigation

Project	Test conditions	Indicators
Positioning accuracy	External GNSS Valid, Single Point	Better than external satellite positioning accuracy
	External GNSS Valid, RTK	Better than external satellite positioning accuracy
	Pure inertial horizontal positioning holding ①	100m/5min (CEP) 600m/10min (CEP) 2nm/30min (CEP)
	Airspeed combination horizontal positioning maintenance ②	1nm/30min (CEP)
Heading accuracy	Single antenna	0.1°③
	Dual antenna	0.2 °/L (L = baseline length) (RMS)
	Course holding	0.3°/30min (RMS) , 1°/h (RMS)
	Self-north seeking accuracy	1 ° SecL, alignment for 15 min ④
Attitude accuracy	GNSS is valid	0.02° (RMS)
	Attitude hold (GNSS failure)	0.3°/30min (RMS) , 1°/h (RMS)
Speed accuracy	GNSS valid, single point L1/L2	0.1m/s (RMS)
Gyroscope	Measuring range	±400°/s
	Zero bias stability	≤0.3°/h
Accelerometer	Measuring range	±20g
	Zero bias stability	≤100μg
Physical dimensions and electrical characteristics	Voltage	9-36V DC
	Power consumption	≤8W
	Interface	2-way RS 232,1 RS422, 1-way PPS (LVTTTL/422 level)
	Size	111mm × 72mm × 43mm (L, W, H)
	Weight	≤450g
	Operating temperature	-40°C~+60°C

Environmental characteristics	Storage temperature	-45°C~+70°C
	Vibration	5 ~ 2000Hz, 6.06 G (with shock absorber)
	Impact	30g, 11 ms (with shock)
	Life span	> 15 years
	Continuous working time	>24h

Note:

- ① The alignment is valid;
- ② For airborne use, there is a turning maneuver before the airspeed combination, and the test takes the flight speed of 150km/H as an example;
- ③ On-board conditions, need to be mobile;
- ④ Two-position alignment, the heading difference between the two positions is greater than 90 degrees



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