

# CONCH-70 FIBER OPTIC INERTIAL NAVIGATION SYSTEM



## Product introduction

Conch-70 (MFG-IIIU-T370) fiber optic inertial navigation adopts high-precision fiber optic gyroscope and quartz accelerometer. Based on the design technology of gyroscope and system integration, it has the characteristics of small size, high precision and high cost performance, and can provide high-precision heading and attitude information.

## Product features

High precision

Small size

Fast start-up

High cost performance

## Application field

Autonomous navigation of small and medium caliber underwater unmanned vehicle;

Autonomous navigation of other carriers.

## Parameters

System accuracy	Heading accuracy	$\leq 0.25^\circ \text{sec}\phi$ (RMS)
	Attitude accuracy	$\leq 0.02^\circ$ (RMS, Static) $\leq 0.03^\circ$ (RMS, Dynamic)
	Angular velocity accuracy	$0.1^\circ/\text{s}$
	Speed accuracy	0.2m/s (Combined with GNSS)
	Heave	$\leq 5\text{cm}$ or $5\%H$ (Whichever is bigger)
	Position accuracy	$\leq 5\%D$ (Combined with speed log/DVL)
Interface	Output interface	2 x RS422 serial outputs
	Frequency	Output frequency 100Hz (Configurable)
	Output protocol	Customize
Physical features	Dimensions	$\phi 130\text{mm} \times 140\text{mm}$
	Weight	$\leq 3\text{kg}$
	Input voltage	(DC) $24\text{V} \pm 20\%$
	Power consumption	$\leq 15\text{W}$
Time	Setting time	$\leq 10\text{min}$
Environment	Operation temperature	$-20^\circ\text{C} \sim +60^\circ\text{C}$

## Dimensions

