

Phins Compact Series

Most Compact Inertial Navigation System for AUV

Based on FOG technology mastered by iXblue for over 30 years. iXblue offers a complete range of high-grade inertial navigation systems dedicated to unmanned vehicles.



Phins C3

Phins C5

Phins C7

FEATURES

- Most compact high grade INS
- Low power consumption for an increased autonomy
- Software and algorithm dedicated for subsea operations
- Genuine strapdown solid-state system

BENEFITS

- Stealth autonomous navigation
- Very accurate heading, roll, pitch, speed and position
- Common interfaces
- Seamless integration
- Open architecture with 3rd party brand sensors

MAIN REFERENCES

- Bluefin
- Kongsberg
- Hydroid
- ECA robotics
- Ocean server
- ISE
- Teledyne Gavia
- Saab
- Atlas Elektronik
- Whoi
- Fugro
- BAE systems

Very strong track record

iXblue has been providing inertial navigation systems and acoustic positioning systems for AUVs for more than 15 years. This almost unique experience allows us to provide the widest range of systems fitting all needs for AUVs with unrivaled performance and a global solution approach.

Now an INS for all AUV types

Phins Compact Series has been designed to offer the AUV industry players the ability to choose an inertial navigation system adapted to their vehicle, whatever their size and mission, from accurate navigation to survey grade.

Ease of use, reliability and availability

Phins Compact Series are fully scalable systems with a similar architecture and interface. The three products includes the same algorithm and software, which enables seamless re-use of the control system on any vehicles, sizes or types, via modern interfaces such as Ethernet, helping to reduce integration and non-recurring costs.

TECHNICAL SPECIFICATIONS

Performance

	C3	C5	C7
Heading	0.15 deg	0.05 deg	0.01 deg
Roll pitch	0.05 deg	0.01 deg	0.01 deg
Position accuracy	0.3% DT	0.2% DT	0.1% DT
Power consumption	12 watts	20 watts	20 watts

Environmental characteristics

	C3	C5	C7
Weight	1.6 kg	4.7 kg	3.5 kg
Volume	0.4 L	5.9 L	4.6 L
Diameter	140mm	154mm	200mm

Electrical interfaces

Serial	RS 232/422
Ethernet	UDP /TCP
Pulse	TTL

From 2 to 5 independant input data flows

FIBER-OPTIC GYROSCOPE TECHNOLOGY

Ultimate Performance and Reliability

The iXblue Group is recognized throughout the world for its pioneering work on the development of the ultimate-performance fiber-optic gyroscope (FOG), a unique technology at the heart of inertial navigation systems. The FOG is an extremely high performance rotation sensing device based on the Sagnac Effect, discovered at the beginning of the 20th century.

A fiber-optic gyroscope uses optical waves propagating in a fiber-optic coil to accurately measure a rotation rate. This apparently simple design takes full advantage of the reciprocity principle in the propagation of light which enables a perfect device to be created from imperfect components.

FOG BENEFITS

- Silent True Solid State Technology (no vibration)
- Maintenance Free
- Unrivalled reliability (Sensor core MTBF 500.000 hours)
- No lifetime limits
- Very low power consumption
- Insensitive to temperature changes and magnetic perturbations
- Resistant to extreme shock and vibration
- Precise resolution
- High bandwidth
- ITAR-free components
- Qualified for space application