# Motion Sensor (PHINS)

> ⚠️ **Attention:**
>
> The Motion Sensor PHINS is operated by ship's command only.

Summary

PHINS (Photonic Inertial Navigation System) outputs position, heading, roll, pitch, depth, velocity, and heave. Its high accuracy inertial measurement unit is based on IXSEA's FOG technology coupled with an embedded digital signal processor that runs an advanced Kalman filter.

Manufacturer	iXblue
Model	PHINS 6005211
Serial No.	PH-425
Type	motion sensor
REGISTRY-Link	REGISTRY (8573)

Motion Sensor PHINS
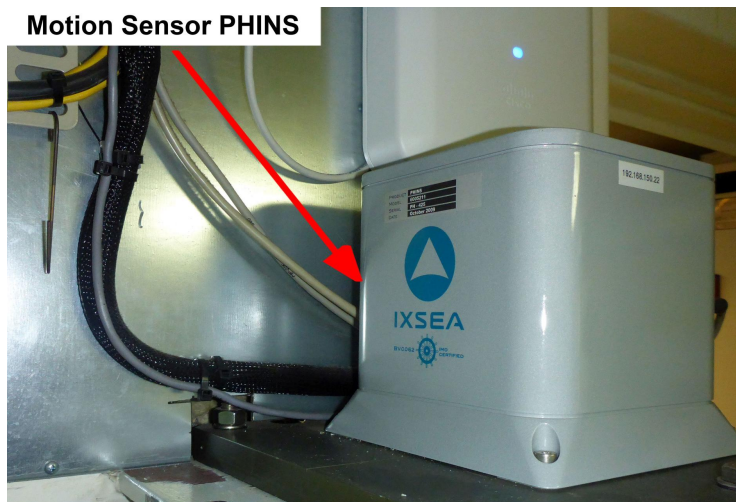
Locations on RV Heinckes tween deck
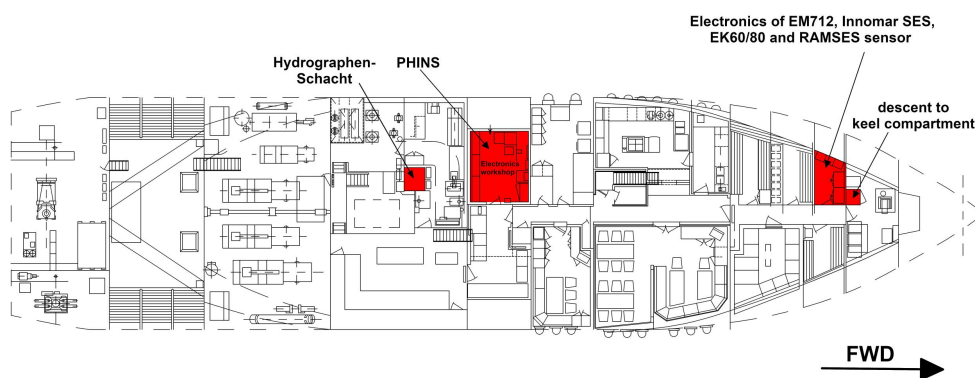
Contacts

Name	Institution	Role
Ralf Krocker	Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research	Engineer In Charge

Components

PHINS system consists of the sensor and the configuration and monitoring software IXRepeater.

No subdevices available.

Position

Info	xyz-position of PHINS from Alignment Survey Report RV Heincke (January 2016)
X	25.952 m (Positive X axis is forward and along the centerline of the vessel with X0 at the Stern point of the vessel.)
Y	0.847 m (Positive Y axis is portside of centerline with Y0 at centerline at the Very stern point of the vessel.)
Z	5.027 m (Positive Z axis is upwards of basis. Z0 is set to the hydrophone on midship.)

Data logging, storage and archiving

Logged parameters

Parameter	O2ARegistry Output Type	Unit
heading	attitude	deg
heave	attitude	m
latitude	latitude	deg
longitude	longitude	deg
pitch	attitude	deg
roll	attitude	deg

Central geographical ship's position and time standard

Rawdata storage on board

DShip

Data archiving on land

Documentation

- PHINS Quick Start Guide (User Manual, 2 MB)

- PHINS datasheet (Factsheet, 229 kB)