

INSpect

Tunnels
 Pipeline
 Platforms
 Bridges
 Mines & UXO
 Offshore construction

New GREENSEA INSpect GS4 FOG INS for Challenging Inspection Tasks

A powerful, lightweight navigation solution optimized for control and automation

MADE FOR SMALL ROVs WITH BIG JOBS

Inspection class and light work class ROVs are being asked to do more than ever before. This small, low-cost inertial navigation system (INS) is designed to provide accurate navigation necessary for today's complicated tasks. With a high-accuracy depth sensor, high-accuracy fiber optic gyro, and magnetic digital compass, the INSpect GS4 performs – even in difficult inspection environments.

Using Greensea's patent-pending OPENSEA™ software engine, the INSpect GS4 fuses data from available navigation aiding sensors to produce an accurate and stable navigation estimate. The INSpect GS4 supports up to eight aiding sensors and is configurable through the Greensea user interface application.

OPTIMIZED FOR AUTOMATION

The INSpect GS4 is built on a flexible, scalable software and hardware architecture that enables Greensea to add capability to the system through plugin software modules. These modules add autopilots and automation to the basic inertial navigation solution to provide capabilities such as station keeping, dynamic positioning, target tracking, and full mission execution.

Call 802.434.6015 for a quote.



INSpect GS4 FOG INS

PHYSICAL SPECIFICATIONS

Length, Diameter	22.17cm, 11.43cm
Weight	2.2kg
Power	<10W, 24VDC

FEATURES

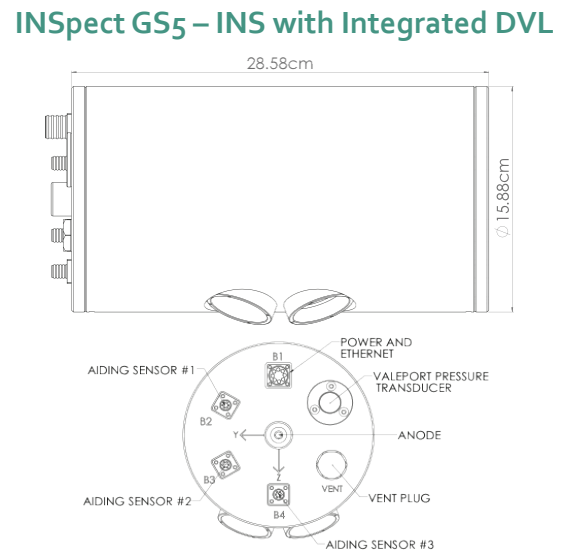
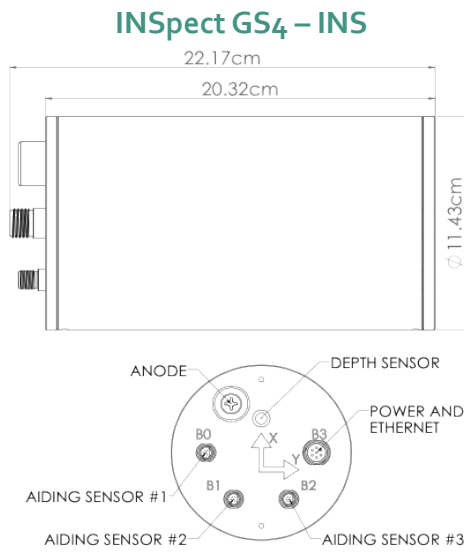
- Easy to install
- Small and lightweight
- Patent-pending OPENSEA technology
- Works with any vehicle or sensor set
- Use existing navigation aiding sensors: USBL, LBL, DVL, GPS, odometer, altimeters, and alternate orientation sensors.

Greensea INSpect GS Inertial Navigation System

with high-accuracy Fiber Optic Gyro and optional integrated Doppler Velocity Log

Models Available With and Without Integrated DVL

Like all Greensea products, the INSpect INS is built to be flexible and scalable. All INSpect INS models can be used with a wide variety of navigation aiding sensors such as USBL, DVL or even a turns counter. Choose the GS4 base model, or select the INSpect GS5 with integrated 1200kHz DVL for a portable solution that maintains precise alignment.



Technical Specifications

Gyro — 3 Axis FOG

Maximum rate	+/- 490deg/sec
Bias stability	0.05deg/hr, 1σ typical
Bias offset	+/- 2deg/hr

Acceleration — 3 Axis

Maximum range	+/- 2g
Bias stability	<0.05mg, 1X typical
Bias offset	+/- 2 mg

Attitude

Range	+/- 90deg pitch, +/- 180deg roll
Accuracy	0.2deg RMS

Heading

Accuracy	0.3deg RMS
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Velocity — with 1200 Hz DVL integrated or external

Accuracy	+/- 0.02m/s
Resolution	0.001m/s
Bottom tracking range	0.2m-50m

Depth

Accuracy	(GS4) +/- 0.1%FS, (GS5) +/- 0.01% FS
Resolution	(GS4) .0002%FS, (GS5) 0.001% FS
Range	100bar (1000m)

Positioning — with 1200kHz DVL integrated or external

Accuracy	0.3% dt RMS
Resolution	0.05m

All Greensea INSpect products are optimized for vehicle control and automation.