



DATA SHEETS & PRODUCT INFORMATION

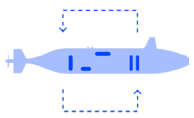
Insight Underwater Laser Scanners



Capture **Incredibly Detailed** 3D Data

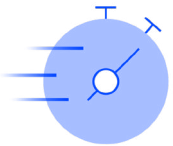
Voyis' Insight Underwater Laser Scanners capture 3D data with submillimeter accuracy to help you see the depths, just like we see the surface. Assets in remote subsea environments can be modelled from a dynamic subsea vehicle or static installation, with all data processed in real-time so that results are immediately available for review.

Benefits & Features



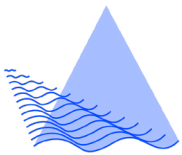
Vehicle Integration

Proven and reliable integration options for subsea vehicles using an easy-to-use software API interface



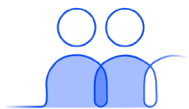
Real-Time Data

3D data is processed onboard the sensor to deliver real-time actionable data for machine learning



Dynamic Scanning

Proven integration with common navigational sensors enables scanning from moving subsea vehicles



Customer Support

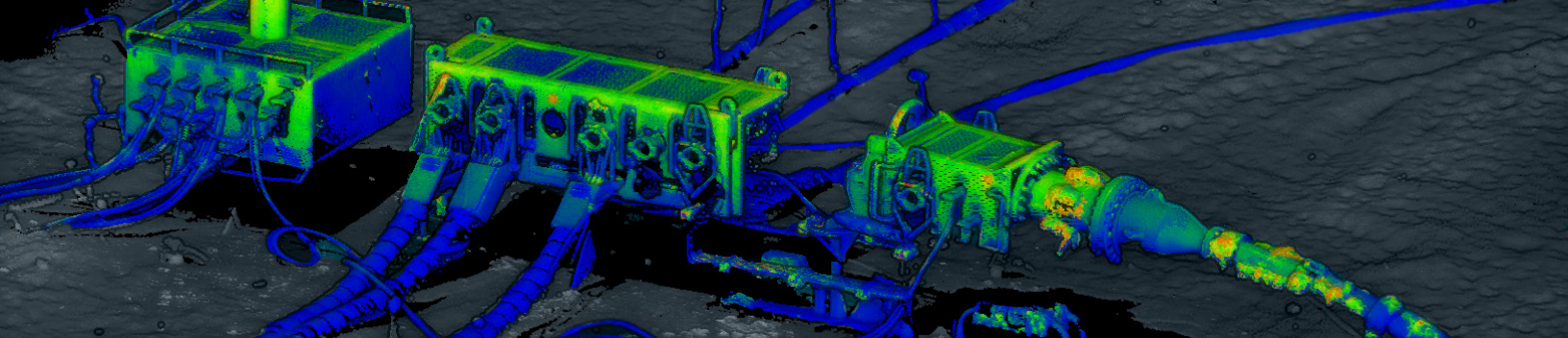
Our team partners with you to find the best solution for your project



Get the Best Data Possible

Sensors that push the limits to deliver the highest resolution, accuracy, and range at any vehicle speed





Find The **Right Product** For Your Project

Each Insight laser scanner produces high-resolution laser data but there are a few options to best suit your project/deployment.



Insight Nano (formerly ULS-100/200)

Compact size for 3D modelling small spaces & short to mid-range targets. Simple static scanning with embedded actuator.

Depth rating: 350m

Scan range: 0.13m - 1m & 0.36m - 2.5m

Points per line: 480

[View All Details](#)



Insight Micro

(formerly ULS-500 Micro)

A long-range laser scanner but in a smaller package making it suitable for small vehicles.

Depth rating: 1000m

Scan range: 1.2m - 7m

Points per line: 2464

[View All Details](#)



Insight Pro

(formerly ULS-500 PRO)

Our longest-range scanner providing the highest quality data possible from larger vehicles.

Depth rating: 4000m & 6000m

Scan range: 1.5m - 15m

Points per line: 2048

[View All Details](#)



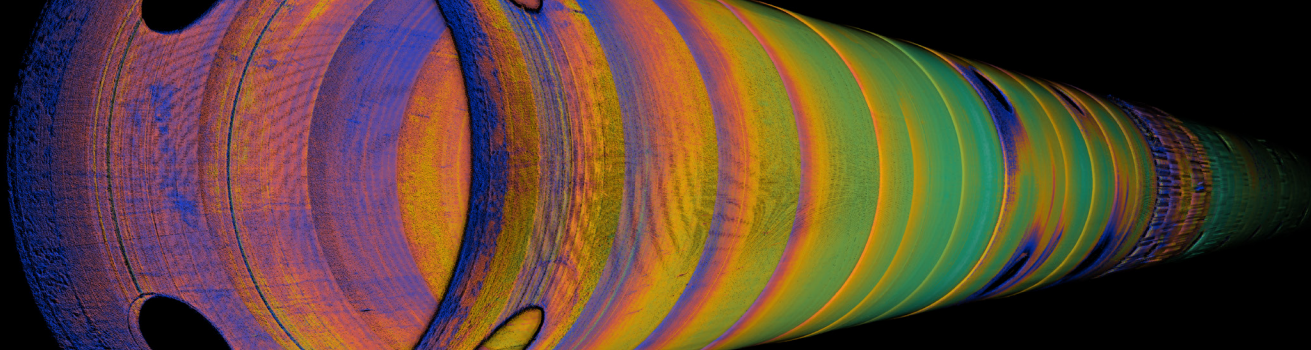


STATIC LASER SCANNERS

Insight Nano

The Insight Nano is a compact laser scanner designed for straightforward 3D modelling. The integrated actuator and simple user interface enable non-intrusive qualitative inspection without any external aiding sensors.

The system is capable of integration with a variety of deployment vehicles, including small ROVs and pipe crawlers, to deliver high resolution data in confined spaces like pipes, tunnels, and flume tanks.



At A Glance

An overview of the main benefits to using an Insight Nano for your project.

👍 Easy to use

✓ No additional sensors required

✂ Operation in **confined** spaces, in air or water

🎯 Proven accuracy

Specifications

Integration drawings available - [contact sales](#)

| Feature | Short-range | Medium-Range |
|--------------------------------------|--|---|
| Scan Range | 0.13m - 1m | 0.36m - 2.5m |
| Points Per Line | 480 | 480 |
| Angle of View | 50° | 50° |
| X Resolution (Along laser line) | 0.3mm @ 0.13m 1.2mm @ 0.6m 1.9mm @ 1m | 0.7mm @ 0.36m 2.7mm @ 1.4m 4.9mm @ 2.5m |
| Y Resolution (Profile to profile) | 0.05mm @ 0.13m 0.2mm @ 0.6m 0.3mm @ 1m | 0.1mm @ 0.36m 0.4mm @ 1.4m 0.9mm @ 2.5m |
| Profile Rate | 9.9Hz | 9.9Hz |
| Laser | 40mW Class 3R 520nm | 75mW Class 3R 450nm |
| Power Consumption | 7W (max), 12-24 VDC | 7W (max), 12-24 VDC |
| Data Interface | RS-485 half duplex USB | RS-485 half duplex USB |
| Weight | 2.4kg (water), 4.3kg (air) | 2.6kg (water), 4.7kg (air) |
| Depth Rating | 350m | 350m |
| Data Storage | Topside control computer | Topside control computer |
| Data Acquisition | ScanSoft (included) | ScanSoft (included) |
| Calibration | Factory calibrated | Factory calibrated |
| Export Data Formats | .XYZ (CSV) | .XYZ (CSV) |



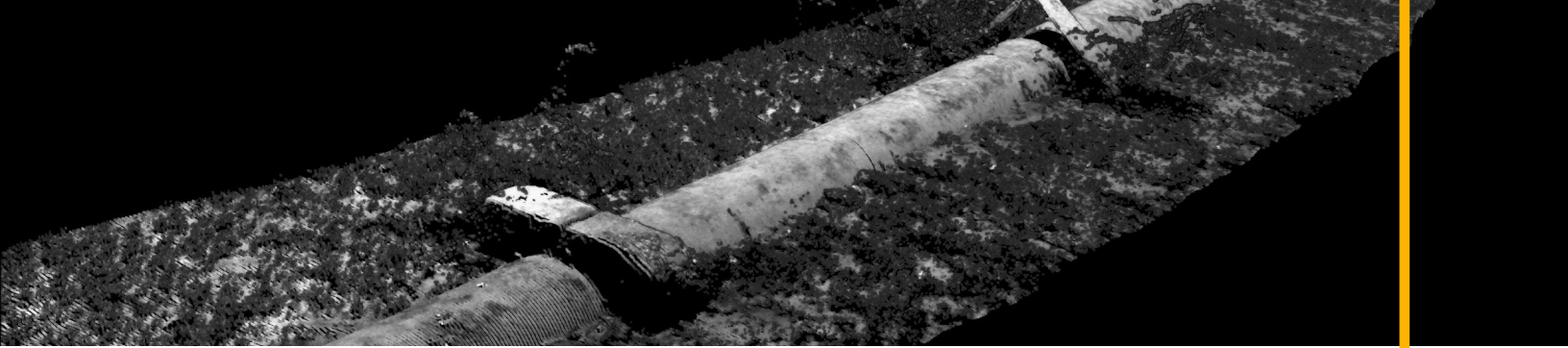


STATIC & DYNAMIC LASER SCANNERS

Insight Micro

The Insight Micro enables small vehicle platforms to perform high accuracy inspection tasks with tightly integrated laser and stills data. The package provides long range data collection (7m) in a compact and low power draw package.

The system has been integrated with AUVs like the REMUS 600, and ROVs like the Saab Falcon, utilizing its software API and time synchronization to enable rapid adoption onto existing vehicle assets. Laser and Image data is processed and enhanced in real-time onboard the system to deliver actionable data for machine learning applications.



At A Glance

An overview of the main benefits of using an Insight Micro for your project.

- High-accuracy models from small vehicles
- Compact & low power draw
- Seamless stills imaging integration
- Onboard storage & data enhancement

Specifications

Integration drawings available - [contact sales](#)

| Feature | Insight Micro |
|-----------------------------------|--|
| Scan Range | 1.2m - 7m |
| Points Per Line | 2464 |
| Angle of View | 50° |
| X Resolution (Along laser line) | 1.1m @ 3m 1.9mm @ 5m 2.6mm @ 7m 3.8mm @ 10m |
| Y Resolution (Profile to profile) | 3.5mm @ 0.5knot 14.2mm @ 2knot 28.5mm @ 4knot |
| Z Resolution (Depth Resolution) | 0.2mm @ 3m 0.5mm @ 5m 1.2mm @ 7m 1.9mm @ 10m |
| Profile Rate | 89Hz with range limiting |
| Laser | 700mW, Class 3B, 450nm |
| Power Consumption | 37W, 24-60 VDC |
| Data Interface | Ethernet, TCP/IP Communication |
| Weight | 3kg (water), 8.5kg (air) |
| Depth Rating | 1000m |
| Data Storage | Onboard 2TB solid state drive or Network storage |
| Data Acquisition | ViewLS C++ API Included |
| Calibration | Factory Calibrated |
| Export Data Formats | .XYZ (CSV), LAS Publishing |
| 3rd Party Integration | QPS QINSy, EIVA NaviSuite, HYPACK HYSWEEP, 4D Nav |



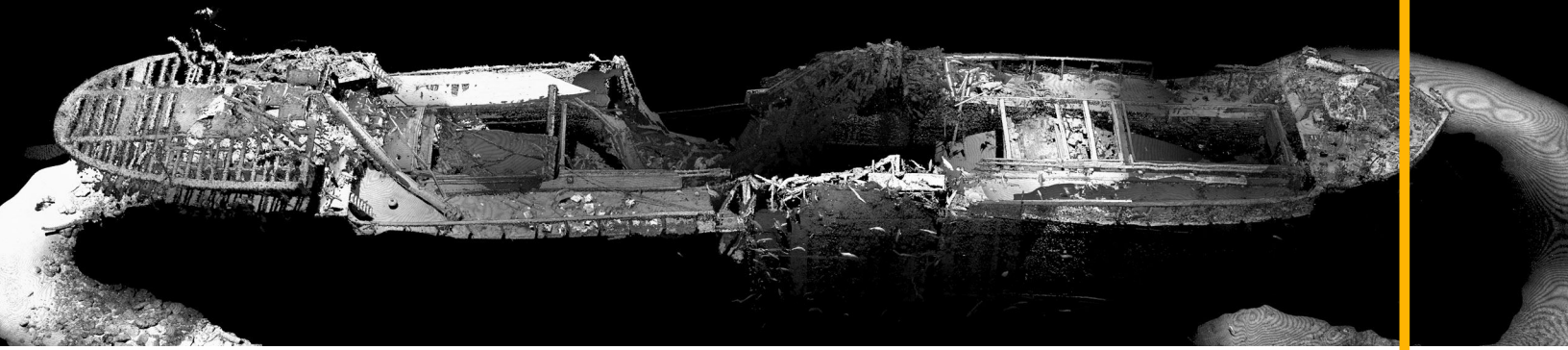


STATIC & DYNAMIC LASER SCANNERS

Insight Pro

The Insight Pro is a long range laser scanner designed for wide area 3D modelling from dynamic and static platforms. The proven design has been deployed since 2013, scanning over 10,000km of subsea pipeline, seabed, and subsea structures.

The Insight Pro has been integrated with countless AUVs and ROVs, simplifying integration with software API that enables autonomous control, and off-the-shelf support of standard vehicle navigation systems. The data is processed in real-time onboard the system to enable machine learning applications like defect detection and pipeline following.



At A Glance

An overview of the main benefits of using an Insight Pro for your project.

🚀 High-speed & long-range data

👍 Simple integration

🕒 Real-time actionable data

📅 Proven reliability on AUVs & ROVs since 2013

Specifications

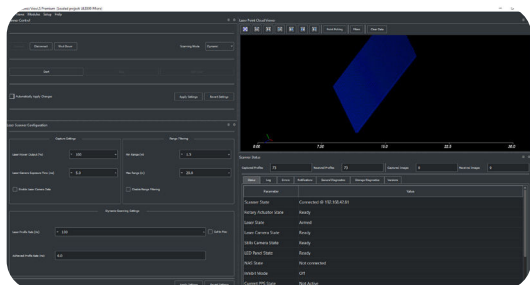
Integration drawings available - [contact sales](#)

| Feature | Insight Pro |
|-----------------------------------|--|
| Scan Range | 1.5m - 15m |
| Points Per Line | 2048 |
| Angle of View | 50° |
| X Resolution (Along laser line) | 1.3m @ 3m 2.3mm @ 5m 4.5mm @ 10m 6.7mm @ 15m |
| Y Resolution (Profile to profile) | 2.8mm @ 0.5knot 11.1mm @ 2knot 22.2mm @ 4knot |
| Z Resolution (Depth Resolution) | 0.2mm @ 3m 0.5mm @ 5m 1.9mm @ 7m 4.1mm @ 10m |
| Profile Rate | 90Hz with range limiting |
| Laser | 700mW, Class 3B, 450nm - temperature controlled |
| Power Consumption | 60W, 24-60 VDC |
| Data Interface | Ethernet, TCP/IP Communication |
| Weight | 13kg (water), 23.1kg (air) |
| Depth Rating | 4000m or 6000m |
| Data Storage | Network storage |
| Data Acquisition | ViewLS C++ API Included |
| Calibration | Factory Calibrated |
| Export Data Formats | .XYZ (CSV), LAS Publishing |
| 3rd Party Integration | QPS QINSy, EIVA NaviSuite, HYPACK HYSWEEP, 4D Nav |



Browse **Other** Products

For more information on all of our products visit www.voyis.com or [contact sales](#).



ViewLS

Our ViewLS software is an all-in-one software interface for directly controlling Voyis products. It gives you the ability to view the system's status and diagnostics and to view data in real-time.

[This is included with all laser scanners.](#)



Rotary Actuator

The Rotary Actuator enables stationary scanning without any aiding sensors required. The result is the same high-resolution data that dynamic scanning produces.

[Contact sales to learn more.](#)



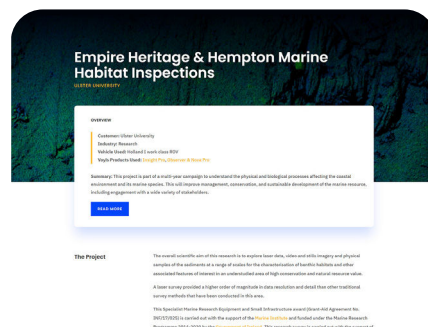
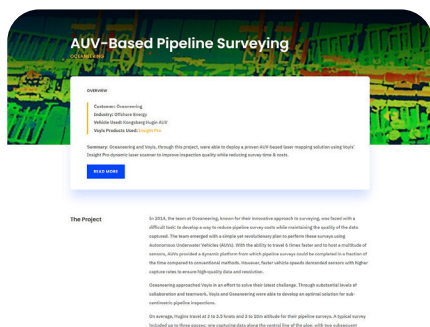
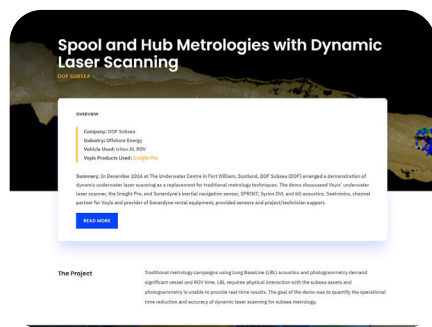
Imaging

Our Observer imaging systems provide high resolution, crisp stills images with real-time image correction onboard. The systems are seamlessly integrated with laser systems for gapless laser data.

[Click here to learn more.](#)

Case Studies

Click on a case study to read how some of our customers have used Voyis products.





VOYIS

Illuminate The Unknown

For More Information Contact sales@voyis.com

www.voyis.com

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