



Inductosense

PRODUCT BROCHURE

Wireless and Non-Destructive (WAND) solutions
for internal corrosion and erosion monitoring

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GLOBAL REACH





Inductosense is a UK-based company that designs and manufactures ultrasonic sensor technologies for internal corrosion and erosion monitoring. Founded in 2015, Inductosense has grown into a leading provider of innovative corrosion monitoring solutions, with a proven track record of technology development, industry validation, and successful volume deployments.

Inductosense WAND (Wireless and Non-Destructive) technology is an embeddable wall thickness monitoring system that enables accurate, repeatable measurements at a fraction of the cost of alternative methods. WAND products are modular, providing solutions that enable our customers to digitise their data, whether they require manual, remote, or fully online data capture.





WAND-TMS

WAND Thickness Monitoring Sensors (WAND-TMS) are thin, battery-free ultrasonic sensors which are permanently installed at thickness monitoring locations on the surface of pipework and vessels, providing repeatable thickness readings free of human-error.



Each sensor includes an RFID for automatic data traceability, and can be easily installed underneath coatings and insulation.

Inductosense offers the standard TMS, where the measurement point is at the centre of the sensor, or alternatively the offset TMS, where the measurement point is offset to the side for monitoring in places such as next to welds.





WAND TMS-B5R-H2



WAND TMS-S5R



WAND TMS-B5R



WAND TMS-S5R OFFSET

WAND-TMS come in several configurations, with operating temperatures ranging from -40°C - 180°C.



ATEX Approved
Intrinsically Safe



RFID
Tagged



Simple to
install



Battery
Free



Fast
Measurements



WAND-HDC

The WAND Handheld Data Collector (WAND-HDC) is an easy-to-use handheld tool that wirelessly activates, and collects a wall thickness reading from a WAND-TMS within a second while in close proximity.



The user interface (UI) displays the wall thickness, the ultrasonic A-scan, and the sensor RFID information. The WAND-HDC is designed so that anyone can take an ultrasonic thickness measurement with the press of a button.



With minimal training required, The WAND-HDC enables customers to take thickness readings easily, quickly and accurately, receiving digitalised data ready to be trended.

The data is displayed clearly on the device screen, and readings are stored internally. Data can be easily extracted using the supplied USB-C cable, by connecting to a PC or tablet.





Accurate
Measurements



Inductive
Coupling



Easy To
Use



Stores 5000
Readings



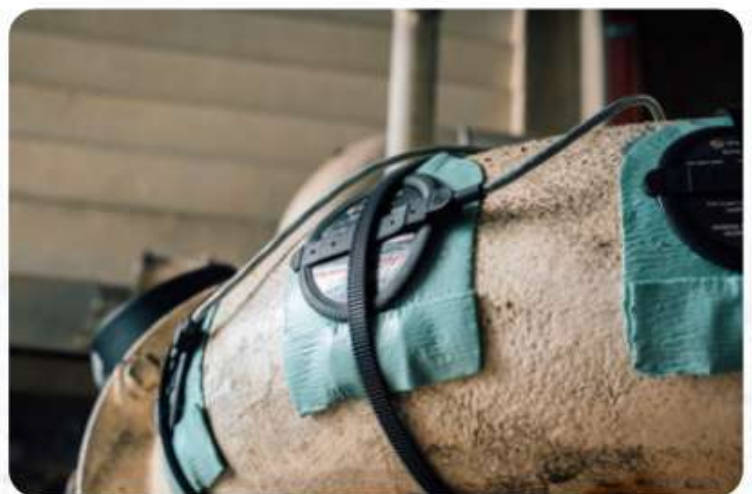
WAND-RDC



The WAND Remote Data Collector (WAND-RDC) is a compact, intrinsically safe (ATEX Zone 0 rated), battery-powered device that automatically collects thickness data from up to 8 installed WAND-TMS.



The WAND-RDC can be programmed to collect ultrasonic thickness data from the sensors at predefined intervals and at a predetermined schedule. It can then be retrieved wirelessly using long-range Bluetooth.





Features

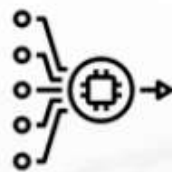
- ATEX/IECEx approved for Zone 0
- Take reading at pre-defined intervals
- Quick installation
- No network required

The WAND-RDC monitors WAND-TMS automatically at predefined intervals or on demand, collecting and logging thickness measurements.

The WAND-RDC then transmits the data wirelessly via long range Bluetooth 5.0, at a range of up to 200m, making it ideal for difficult access locations. Data can then be transferred to the iDART cloud with access to the internet.



5 year*
Battery Life



Up to 8
Locations



ATEX Approved &
Intrinsically Safe



Stores 1500
Readings





The Inductosense Data Analysis and Reporting Toolkit (iDART) is a cloud-based software package for use with the Inductosense WAND system. iDART enables configuration of the WAND data collectors, as well as management, analysis and export of the WAND ultrasonic thickness data.



View and Manage
WAND Data



Cloud Based



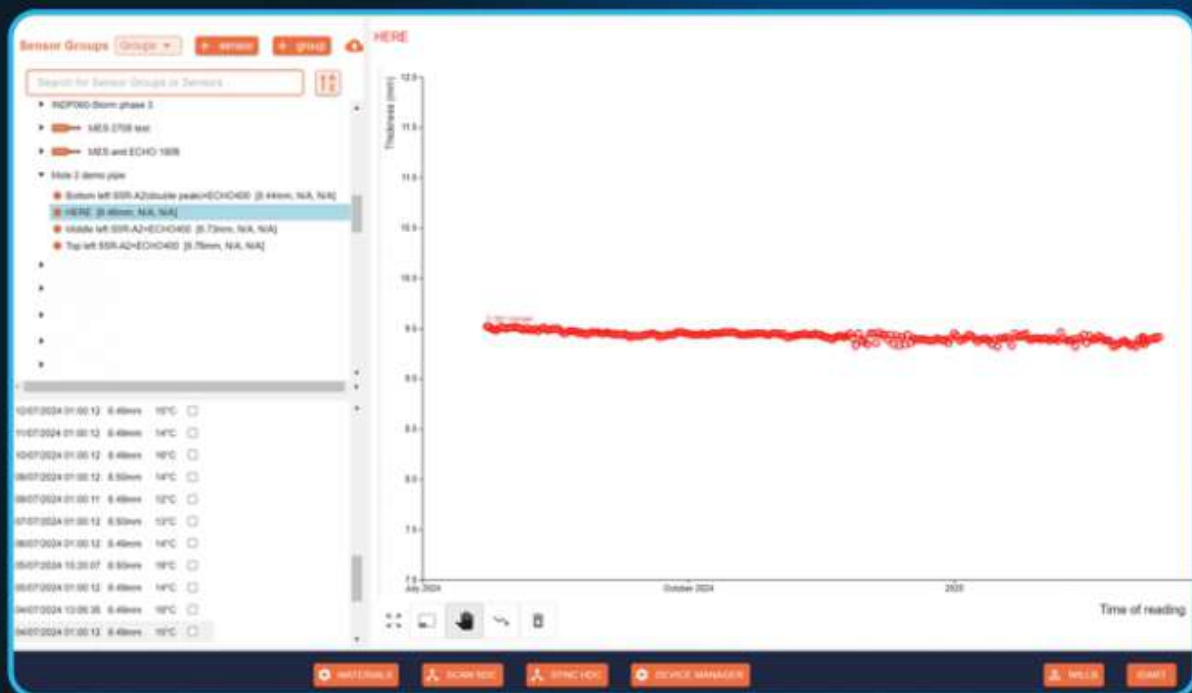
Calculate
Corrosion Rates



Set Critical
Thresholds



iDART helps streamline inspections and support maintenance decisions, by enabling predictive maintenance based on monitored thickness trends.



Features

- Browser and desktop application availability
- Trend visualisation and anomaly detection
- Data export for reporting and integration into asset management systems
- User friendly Interface
- Secure data access and remote usage
- Cloud based and on-prem solutions available



WAND-ONLINE



The WAND-Online service enables fully digitalised, remote wall thickness monitoring. Accurate, real-time wall thickness measurements accessible from your desk through iDART software.



WAND-Online enables thickness measurements from installed WAND-TMS to be automatically directed to the cloud-based iDART software. The sensors are installed on the surface of pipework or vessels. The low profile design allows them to be embedded underneath coatings, insulation or composite repair.





The WAND Remote Data Collectors (RDCs) acquire the measurements from the sensors at pre-defined intervals with no human intervention. The data is then sent via Bluetooth 5.0 to a Gateway, which then transmits the data via a 4G network to the iDART software.

WAND-Online is a simple plug and play system that is easy to set up and provide accurate, trendable wall-thickness data. Due to operating via a 4G network, it does not require the need for an on-site wireless network, making it ideal for remote sites with minimal infrastructure or personnel.



THE REACH



The REACH is an extendable pole accessory that can mount the WAND-HDC.

Extending up to 4.3m / 14.1ft, the REACH provides easier access to WAND-TMS installed in difficult access locations, to support hard-to-reach corrosion monitoring.



The flexible reader head can be adjusted to adapt to various pipe shapes and surfaces for improved usability.





Made from lightweight carbon fibre, the REACH can collapse to 1.5m, making it easy to handle and transport. A safety harness is supplied with the REACH to ease handling and physical strain while using the device.

The WAND-TMS RFID and Ultrasonic wall thickness measurements are collected via the WAND-HDC that is mounted to the REACH.



ECHO



The ECHO extension is an ultra-thin, flexible cable that provides access to WAND-TMS for under insulation corrosion monitoring. The cable can collect wall thickness data from under coatings, cladding, or in confined spaces, without the need for removal or direct access.



The ECHO is ideal for difficult-access locations such as underneath insulation, confined access, or at height. ECHO comes in a variety of set lengths, including 45cm, 100cm, 200cm and 400cm.



WAND SUCCESS

WAND has been deployed by major operators globally, providing accurate wall-thickness data that enables predictive maintenance and informed decisions. By supporting predictive maintenance and reducing manual inspection effort, WAND helps customers optimise asset integrity, cut costs, and maximise production effectively.



Increased well production
resulting in an additional
\$43,000/day.



Saved **840** working hours
a month on NDT
personnel.



Increased production
by **50%.**



Prevented unplanned shutdowns, resulting in
approx. **\$130,000** of lost earnings daily.

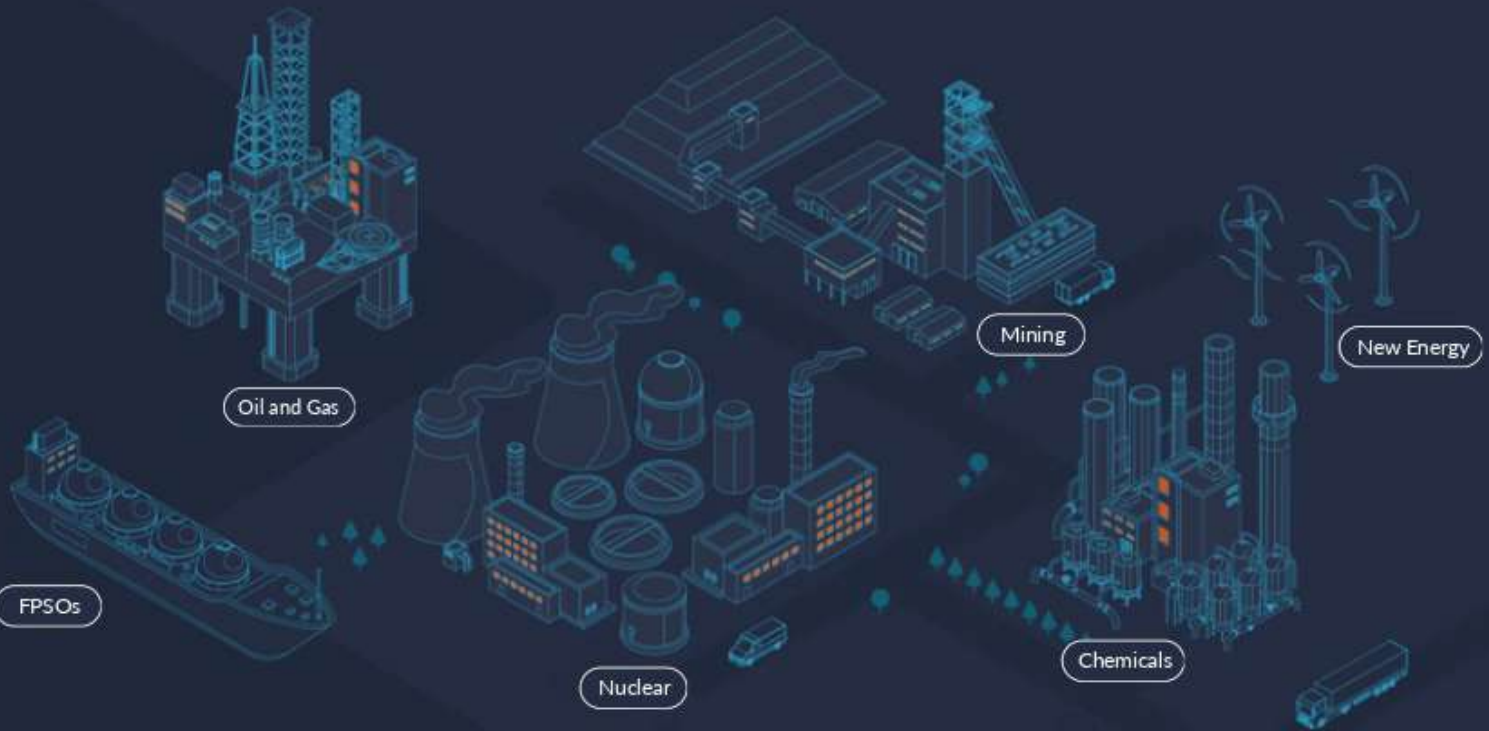
Technical Library

Scan the QR code to view our centralised hub of resources, including our case studies, datasheets and videos.



SECTORS

Inductosense provide advanced corrosion monitoring solutions across a wide range of industry sectors, supporting asset integrity and performance with scalable, cost-effective technology.



Industry Applications

WAND delivers reliable corrosion and erosion monitoring solutions across a wide range of industries.

We work closely with original equipment manufacturers (OEMs) to integrate WAND technology within existing systems and equipment.



SCAN



GLOBAL REACH



WAND is deployed globally, with tens of thousands of WAND-TMS installed across more than 40 countries. At a single chemical plant, over 4,000 sensors have been installed, demonstrating the scalability of WAND technology for integrity management.

OUR CUSTOMERS





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