



# ARTIO™



## DATA SHEET

## OVERVIEW

ARTIO™ is a wireless ultrasonic inspection system that is used for industrial corrosion monitoring / thickness testing applications.

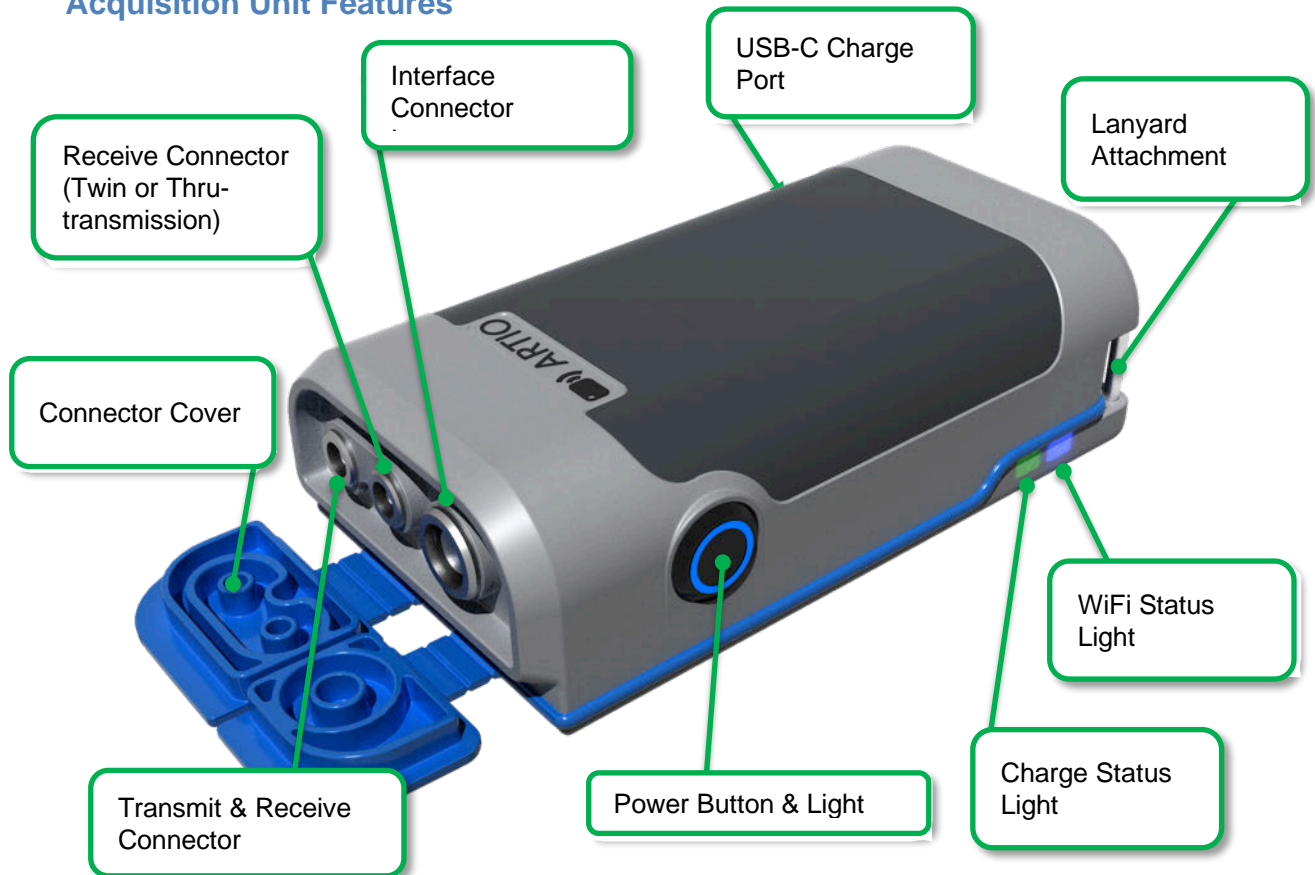
The system comprises of a hardware ultrasound acquisition unit and smartphone app. Ultrasonic data from the acquisition unit is transmitted to the smartphone app via wireless connection for processing, display and recording.

The smartphone app has an inbuilt database which stores and manages the data for ease of collection, reporting and export.



## HARDWARE

### Acquisition Unit Features



### Technical Specifications\*

|                             |  |
|-----------------------------|--|
| <b>Pulse Width:</b>         | 0.5 to 18MHz   |
| <b>Digitiser:</b>           | 8 bit  |
| <b>A-Scan Refresh Rate:</b> | Up to 60Hz   |
| <b>Gain:</b>                | 80dB   |
| <b>Battery:</b>             | Endurance: 3.5 Hrs (Continuous use), 500 Charge cycles<br>Storage (with >80% capacity recovery): 1 year at -20 to +30°C<br>8.9Wh, non-removable Lithium-Ion, non-removable |
| <b>Charge Port:</b>         | USB-C, 5.0VDC. ~2 hrs charge time  |
| <b>I/O Connector:</b>       | 1 x Quadrature encoder or 1 x save button  |
| <b>Enclosure:</b>           | Designed for IP67, <200 grams / 7 ounces   |
| <b>Data Communication:</b>  | WiFi   |
| <b>Control Interface:</b>   | iPhone App (iOS 13.5 and later iPad / iPod)  |
| <b>Display Modes:</b>       | A-Scan, B-Scan & Time of Flight  |
| <b>Data Storage:</b>        | Available Phone memory   |
| <b>Survey Setup Wizard:</b> | 1D, 2D & Boiler grid formats   |
| <b>Certification:</b>       | CE (EU) & EN Ultrasonic norms (ISO16831:2012)  |

\*Final specifications may vary as the product is delivered.





### 4.3 Battery Safety and Care

ARTIO has an internal Lithium-Ion battery that is not user accessible or serviceable. Care should be taken to ensure that the battery is not over heated or used outside of its safe operating temperatures.

During use (when the unit is powered on), the hardware will automatically shut down if the internal temperature rises above the safe limits.

| Condition                   | Safe Temperature Range |             |
|-----------------------------|------------------------|-------------|
| <b>Charging</b>             | 0 to +45°C             | 32 to 113°F |
| <b>Discharging (In use)</b> | -10 to +60°C           | 14 to 140°F |
| <b>Storage</b>              | -20 to +30°C           | -4 to 86°F  |

Over time, the battery will gradually lose its maximum capacity and should be replaced. The health of the battery is displayed in the **STATUS** window on the **PULSER** page of the smartphone App. The STATUS window can be opened by tapping on the battery icon.

The unit should be returned to the manufacturer when the battery health displays “Replace”. This could occur in approximately 500 charge cycles or 2-3 years, depending on usage as well as operating and storage temperatures.



**! DO NOT EXPOSE THE UNIT TO HIGH TEMPERATURES.** The unit could be damaged and there is risk of fire if the unit is not kept at the correct temperature range. Store the unit in a shaded place, never leave the unit in direct sunlight for a prolonged period.

**! DO NOT DISPOSE OF THE UNIT,** return it to the manufacturer.

**! DO NOT IMMERSE THE UNIT IN WATER.**

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## ARTIO APPLICATION

### General

The ARTIO App is made available through Apple's App Store, the user will be given a username and password where they can login on their device and operate the app and hardware unit.

The following link can be used to access the ARTIO download page on the Apple app Store:  
<https://apps.apple.com/us/app/artio/id1511686165>

For authorised users a link and instructions on how to download the ARTIO App will be made available by the official point of contact.

THORNETIX Pty Ltd will make available updates to the app and Hardware Firmware from time to time. It is highly recommended to update as soon as these become available, to take advantage of the latest improvements and features.

We intend to work closely with all of our users to implement the best features and fix any bugs that may arise. Within the App **CONFIG TAB** there is a feedback email mechanism through which we welcome all users' feedback about, bugs, functionality, features, comments and suggestions.



### General Layout

The ARTIO™ app is made up of 3 main screens. These screens are displayed by selecting the desired item on the **TAB BAR** tab at the bottom of the screen.

The tabs include:

1) Pulser

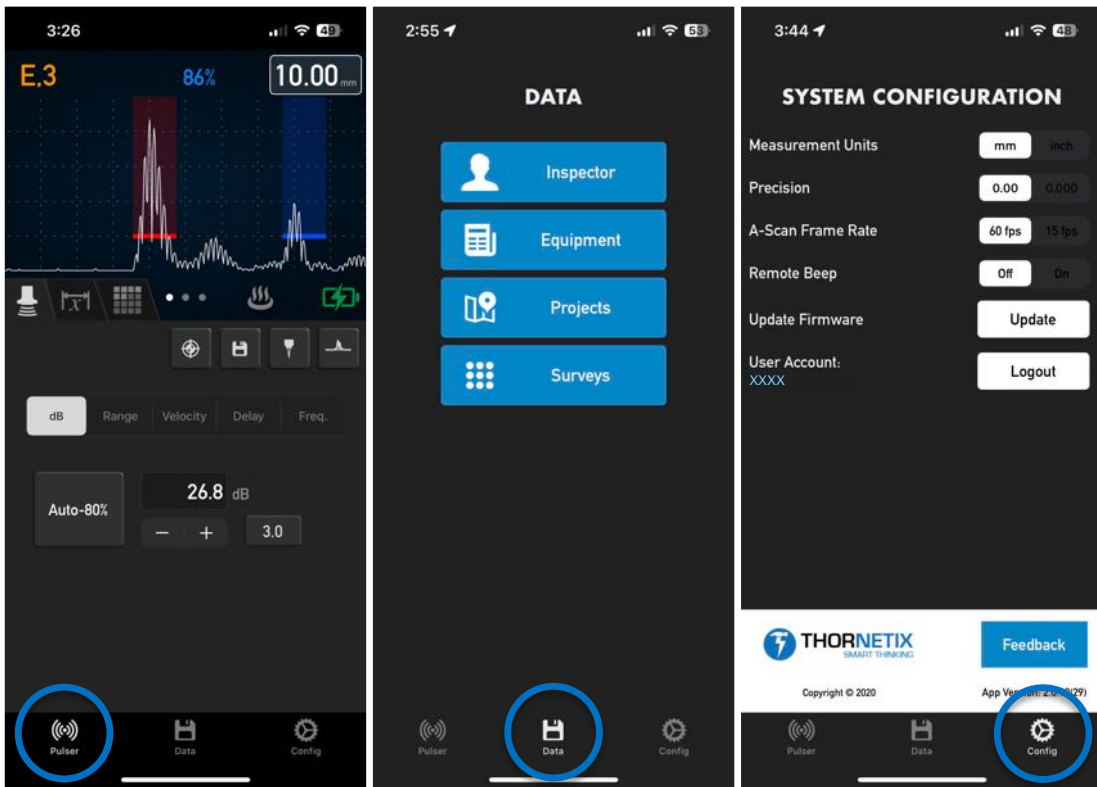
This tab is the interface for adjusting and calibrating the ultrasonic settings, viewing the waveform and collecting the inspection data.

2) Data

This tab contains the interface setting up and editing the project, survey and general information data. From within this tab the survey/results can be exported.

3) Config

This tab contains the controls for configuring and updating the firmware of the ARTIO™ hardware device. From here the user can also send feedback and support requests to Thornetix.



Pulser Tab

Data Tab

Config Tab



**Demo Video:**

Click on the next image for watch a video about our product.



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