

# AD-3256

## INSTRUCTION MANUAL

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### Coating Thickness Gauge



1WMPD4005516

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# 1. Introduction

Thank you for purchasing the AD-3256 digital coating thickness gauge.

In order to use the product safely and effectively, make sure to read this manual thoroughly before use. This manual also includes a warranty, so make sure to store it carefully after you are finished reading it.

For a more detailed instruction manual, scan the QR code below or visit the product information page for the AD-3256 on the A&D website to obtain a PDF simplified manual. You can download the latest version of both the basic manual (this manual) and the instruction manual on the product information page.

A&D website: <https://www.aandd.co.jp>



[AD-3256 product page](#)

## **⚠ CAUTION**

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- **“QR code” is a registered trademark of Denso Wave Incorporated.**

## 2. Software Usage Agreement

- AD-3256 Logger must not be duplicated without the permission of A&D Company, Limited.
- AD-3256 Logger is subject to change without notice.
- AD-3256 Logger is copyright of A&D Company, Limited.
- AD-3256 Logger is used to transfer data from the AD-3256 digital coating thickness gauge to a computer.
- AD-3256 Logger may only be installed to a computer that will connect with the AD-3256 digital coating thickness gauge.
- A&D Company, Limited shall assume no responsibility for any direct, indirect, special, or consequential damages arising due to flaws in AD-3256 Logger or this Digital Coating Thickness Gauge Instruction Manual, even if it is notified of the possibility of those damages occurring in advance. A&D Company, Limited shall also assume no responsibility for claims of rights by third parties. A&D Company, Limited shall assume no responsibility for the loss of any data.

March 2025  
A&D Company, Limited

## 3. Safety Precautions

This manual contains safety precautions to prevent danger to yourself and other persons and ensure that the purchased product is used safely.

### Safety Precaution Notation

This manual uses the following symbols to help prevent accidents caused by incorrect handling. The meaning of each symbol is as follows.

### Meaning of Symbols

 <b>WARNING</b>	<b>Indicates information where incorrectly handling the product may lead to death or serious injury.</b>
 <b>CAUTION</b>	<b>Indicates information where incorrectly handling the product may lead to injury or damage to property.</b>

Always pay attention to the following precautions when operating the device.

### **CAUTION**

#### Repairs

Do not open the case to perform repair work, as this should only be done by a qualified repairman.

Doing so will void your warranty and may cause damage to the device or impair its functionality.

#### Device Malfunction

If a device malfunction is detected, stop using the device immediately.

Continuing to use a malfunctioning device is very dangerous.

## 4. Product Features

This product is a gauge for measuring the coating thickness of targets such as automobiles and bridges, and includes the following features.

- The product features an easy-to-view color LCD screen.
- The product automatically detects the target metal for measurement and performs measurement using a testing method suitable for the target (either electromagnetic or eddy-current testing).
- The product contains an integrated probe which allows easy measurement, simply by pressing the main unit sensor against the target to measure. It automatically saves up to 500 items of measured data.
- The product can be connected to a computer via a USB cable to transfer/save data using dedicated software.
- The product features a three-color LED comparator light and alarm to notify the user when a threshold (higher limit/lower limit) is exceeded.
- The product features automatic screen rotation (90°, 180°, 270°) for easy viewing from any angle (as well as a screen lock function).
- The product supports both single-point calibration and two-point calibration for zero-point calibration.

## 5. Included Parts

Confirm that the following items are included when opening the product.

- AD-3256 main unit .....1
- Accessories
  - Zero-calibration plate (for ferrous substrate × 1, for non-ferrous substrate × 1) .....2
  - Adjustment test piece.....5
  - Micro-USB cable (Type-A to Micro-B).....1
  - Carrying case .....1
  - Sensor cap .....1
  - Strap.....1
  - Battery (for monitoring) .....2
  - Simplified instruction manual .....1

### CAUTION

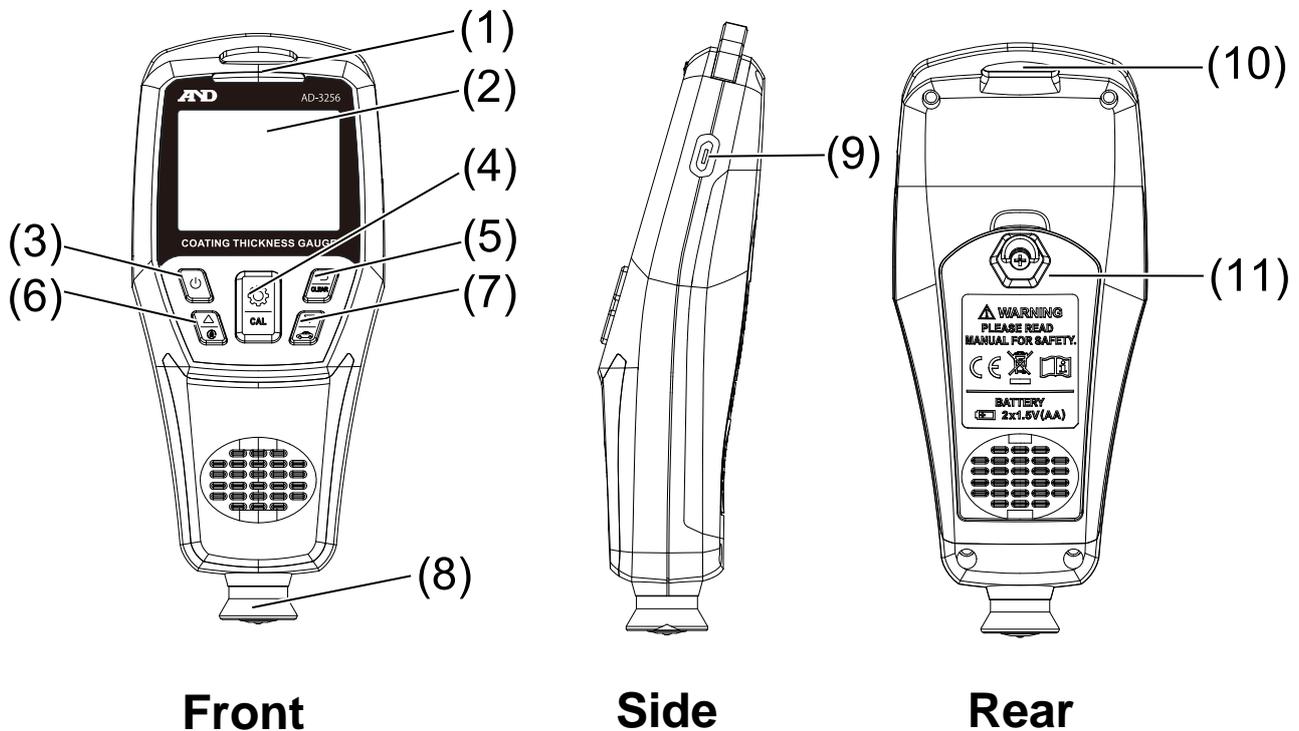
For information on how to identify which zero-calibration plate is for ferrous substrates and which is for non-ferrous substrates, refer to [“7-2. Display”](#) on page [12](#). You can also use a magnet to identify whether a zero-calibration plate is for ferrous or for non-ferrous substrates.

## 6. Cautions Regarding Use

- ❑ Subjecting the product to a strong impact may cause damage or failure.
- ❑ Do not use the product in a location exposed to direct sunlight for long hours, inside a closed vehicle, or near a device such as a heater. The range of operating temperatures for the product is 0 to +40°C. Using the product outside this range may cause failure.
- ❑ Avoid moving the product from a hot location to a cold location, or vice versa. Sudden changes in temperature may cause moisture to form inside the product and lead to failure.
- ❑ The device may be affected in locations subject to strong magnetic fields or electric fields, such as near a television, IH cooking equipment, or a microwave.
- ❑ The product is not moisture-proof or water-proof, so do not submerge it or wash it with water.

# 7. Names of Parts

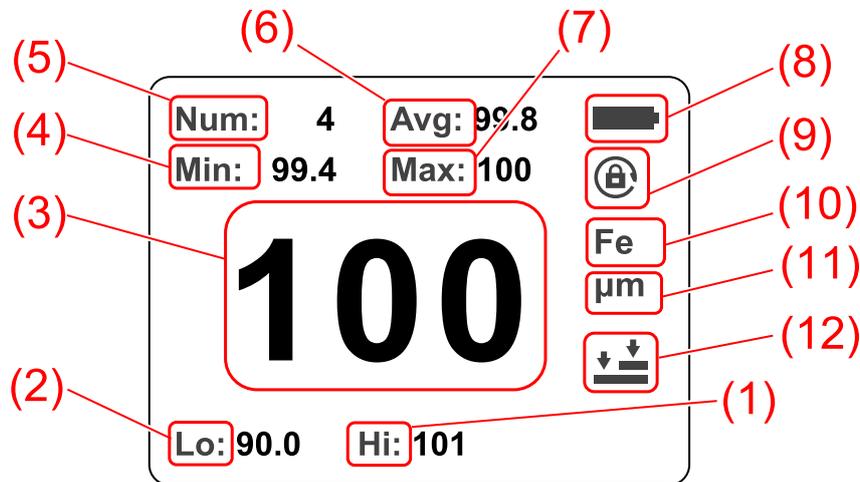
## 7-1 Main Unit



- (1) LED light
- (2) LCD screen
- (3) Power button
- (4) Set/Confirm/Calibrate button
- (5) Cancel/Back/Delete all saved data button
- (6) Value+/Up/Lock screen button
- (7) Value-/Down/Judgment mode button
- (8) Sensor assembly
- (9) USB communication interface (Micro-B)
- (10) Hand rope hang buckle
- (11) Battery compartment

## 7-2 Display

When the power is turned ON and the product is ready to perform measurement, the measurement screen is displayed.



### Icons Displayed

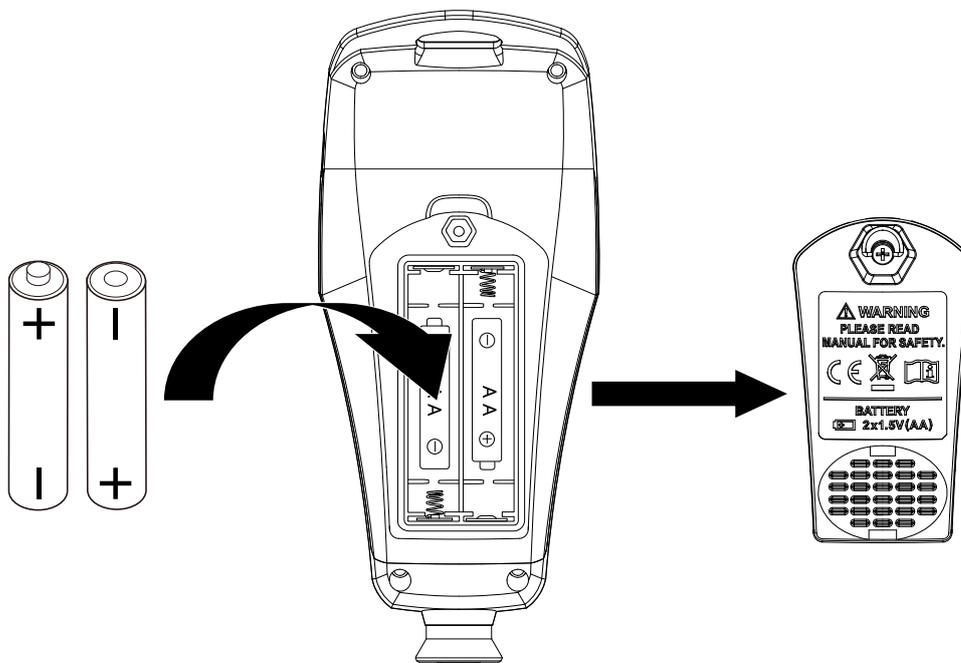
No.	Description
(1)	Displays the higher limit value.
(2)	Displays the lower limit value.
(3)	Displays the measured value.
(4)	Displays the minimum value of the saved data.
(5)	Displays the saved data count.
(6)	Displays the average value of the saved data.
(7)	Displays the maximum value of the saved data.
(8)	Displays the battery level.
(9)	Indicates whether the automatic screen rotation function is enabled or disabled.
(10)	Displays the substrate type (Fe: Ferrous, NFe: Non-ferrous) <sup>*1</sup> (Automatic detection).
(11)	Displays the measurement unit.
(12)	Displays the set calibration mode.

<sup>\*1</sup> The substrate type can be identified in (10) by measuring either the zero-calibration plate for ferrous substrate or non-ferrous substrate included.

## 8. Replacing the Batteries

The battery is not installed in the battery box when you purchase the product. Before using, insert the included battery into the battery box. The included batteries may have a short life, as they are included for monitoring purposes. Make sure to purchase and use new batteries.

When using the device for the first time or if the display becomes faint, follow these steps to install or replace the battery.



### Replacing the Batteries

- Step 1.** Turn the tab of the screw on the battery cover on the rear of the main unit to loosen the screw, then remove the battery cover.
- Step 2.** Take out the old batteries.
- Step 3.** Insert two new AA batteries, ensuring that the polarity is correct.
- Step 4.** Return the battery cover to its original position, then turn the tab of the screw to tighten the screw.

## **⚠️ Cautions Regarding the Use of Batteries**

- The included batteries may have a short life as they are included for monitoring purposes.
- The battery life indicated in the specifications is the life when new alkaline batteries are used at an ambient temperature of 25°C and the prompt tone and LED lamp are not used. The battery life may be much shorter depending on the ambient temperature and the frequency the LED lamp is used.
- If you will not use the product for an extended period, store it with the batteries removed.
- Make sure to use the specified batteries (AA × 2).
- When replacing the batteries, make sure to replace both batteries with new batteries. Mixing new and old batteries may cause leakage.
- If batteries that are running low are inserted or the battery level becomes low during use, the screen may not be displayed correctly or the product may not operate correctly. If this happens, replace the batteries with new batteries.
- Ensure that the polarity of the batteries is correct. Inserting the batteries with the polarity reversed may cause malfunction or failure.
- Do not charge, short, disassemble, or dispose of the batteries in fire, as doing so may cause rupturing or leakage.
- Keep the batteries out of reach of children. If a battery is ingested, consult a doctor immediately.
- Follow local environmental regulations when disposing of used batteries.

## 9. Turning the Power ON/OFF

### 9-1 Turning the Power ON

Press and hold the  button for two seconds or longer to display the boot screen. When the boot screen is displayed, release your finger from the  button. A tone sounds, the LED lamp lights orange, green, then red in that order, and when the load gauge reaches 100%, the measurement screen is displayed.

#### CAUTION

- **Batteries are not installed in the battery box at the time of purchase. Before using the product, refer to [“8. Replacing the Batteries”](#) on page [13](#) to correctly insert the batteries.**
- **When the prompt tone is set to OFF, there will not be any sound.**
- **The LED lamp does not light if it is disabled.**

### 9-2 Turning the Power OFF

Press and hold the  button until a tone sounds, then release your finger. The displayed screen disappears and the power turns OFF.

#### CAUTION

**A tone does not sound if the prompt tone setting is disabled.**

**When the prompt tone is set to OFF, there will not be any sound.**

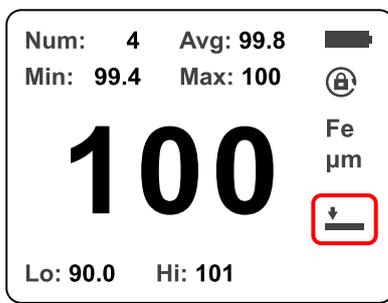
# 10. Measurement

## 10-1 Calibration

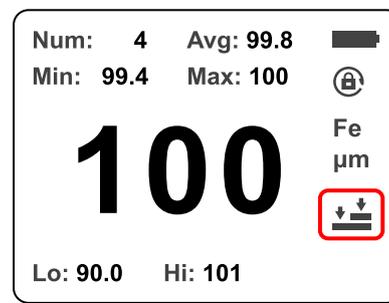
To minimize measurement error and ensure that precise measurement results are obtained, make sure to perform single-point calibration or two-point calibration before measurement.

This section explains single-point calibration.

To perform more precise measurement, refer to "[12-3 Two-Point Calibration](#)" on page [25](#).



Single-point calibration

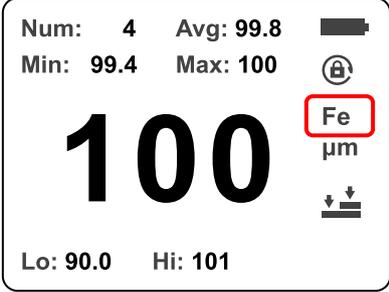


Two-point calibration

### CAUTION

When performing calibration, it is necessary to use either the zero-calibration plate for ferrous substrates or non-ferrous substrates according to the object to be measured.

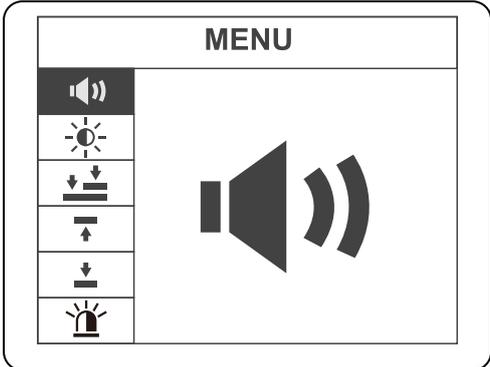
The method for determining whether the object to be measured or the zero-calibration plate is ferrous or nonferrous is as follows.

	
<p>Display the measurement screen, then press the sensor against the object to be measured or the zero-calibration plate.</p>	<p>When measurement is complete, the substrate type is displayed on the right of the screen.</p>

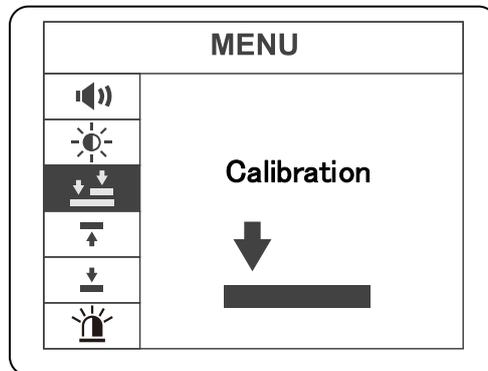
Substrate displayed  
 Ferrous substrate: Fe  
 Non-ferrous substrate: NFe

### Single-Point Calibration

**Step 1.** Press the  button to display the following menu screen. Press the  or  button to select  calibration, then press the  button.



**Step 2.** When the picture of the zero-calibration plate changes from yellow to white, press the  or  button to select single-point calibration as indicated in the figure below, then press the  button.

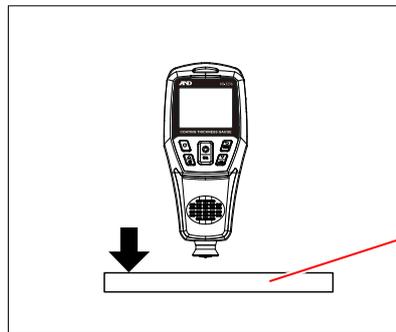


**Step 3.** Press the  button to return to the measurement screen.

**Step 4.** On the measurement screen, press and hold the  button for two seconds or longer.



**Step 5.** The following image is displayed. Press the sensor of the product against the zero-calibration plate.

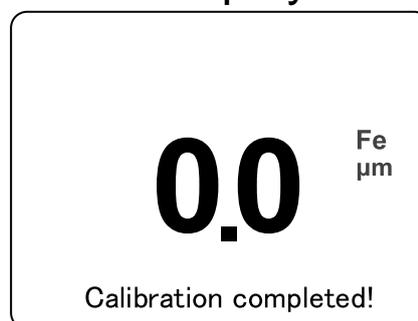


Zero-  
calibration  
plate

### CAUTION

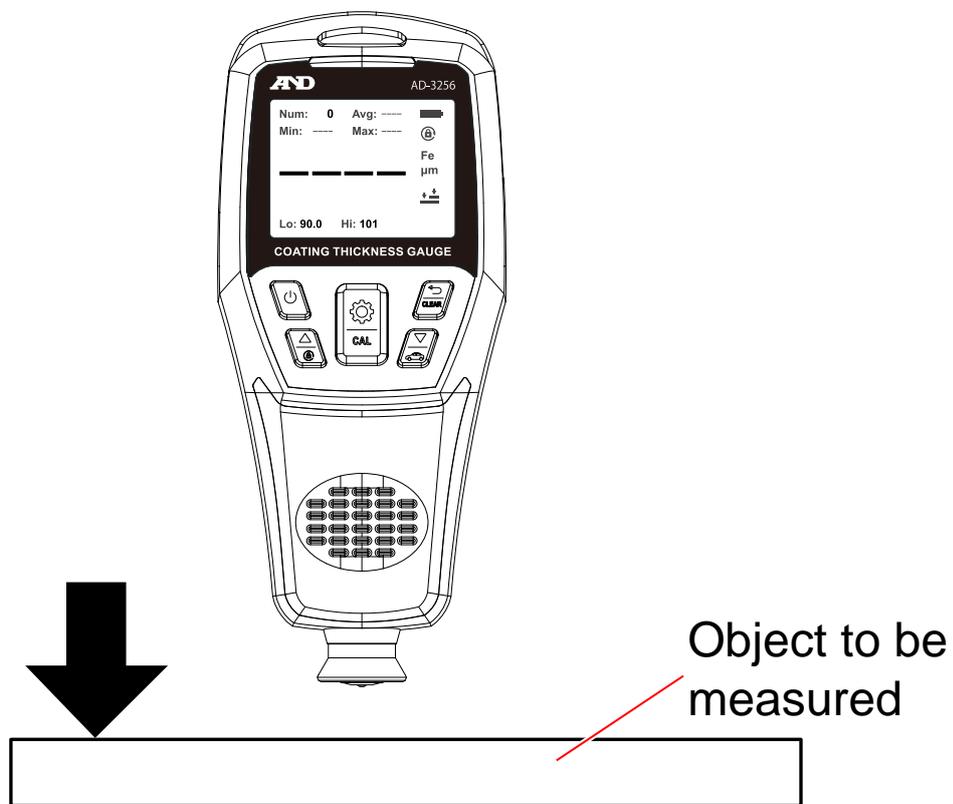
- Remove the protective film from the zero-calibration plate before use. Press the sensor against the side you removed the protective film from.
- Do not perform calibration on a metallic surface. Performing calibration with the zero-calibration plate on a metallic surface may cause incorrect calibration values.

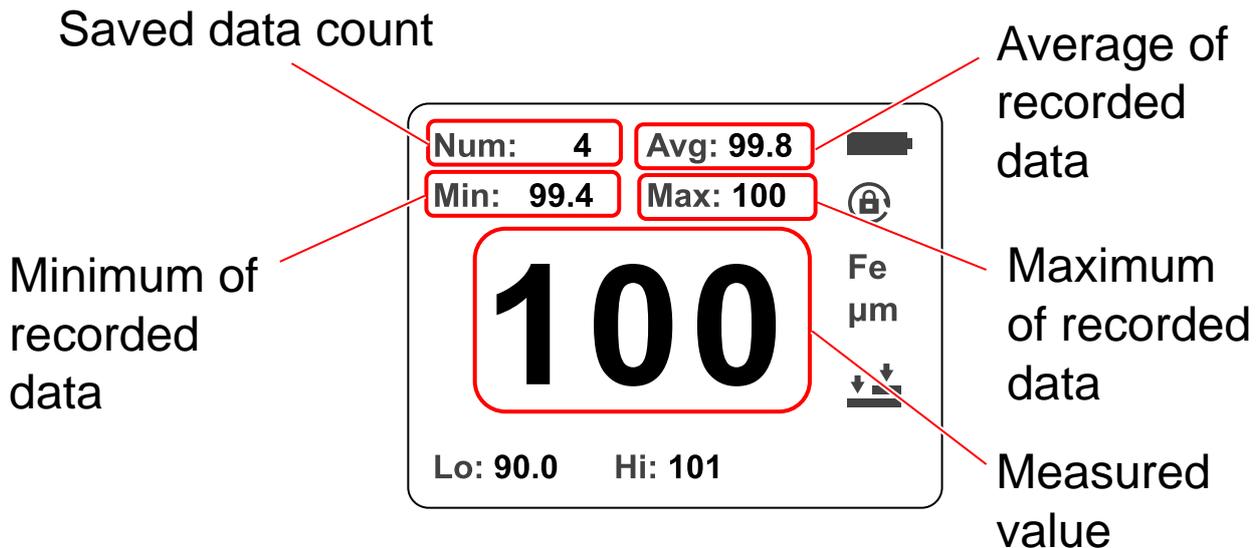
**Step6.** When a tone sounds and the LED flashes green, release the sensor from the zero-calibration plate. Calibration is complete when the measured thickness value is displayed as "0.0".



## 10-2 Performing Measurement

After performing calibration and displaying the measurement screen, press the sensor against the target to measure at an angle of 90 degrees. A tone sounds, the measured thickness value, recorded data average, recorded data minimum, and recorded data maximum are displayed, and the saved data count is incremented.





## CAUTION

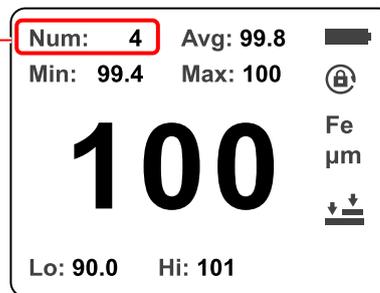
- Measurement cannot be performed accurately if the sensor is at an angle or pressed too hard.
- The values for “Avg,” “Min,” and “Max” are calculated based on all data saved to the main unit.
- Measurement cannot be performed accurately if magnetic material is included in the coating.
- Measurement cannot be performed accurately on the edge of the object to be measured because the magnetic flux will be uneven. (Ensure there is 10 mm or more area of the target object around the center of the sensor.)

# 11. Data Log Function

The product automatically records data each time measurement is performed. It can record up to 500 measurements. The dedicated app can be used to transfer measured data to a computer and save it as an Excel file. For information on transferring and saving data, refer to the latest version of the instruction manual by accessing the product page via the URL or QR code in “[1. Introduction](#)” on page [5](#).

The value in "Num:" in the figure below indicates the data count.

Saved data  
count



## CAUTION

- The measurement data cannot be checked on the product itself. A PC with dedicated software is required.
- When checking the saved data using the dedicated software, the value in "Time" indicates the time that the data was imported, rather than the time that the data was measured.

## 12. Configuration

The table below indicates the functions available in the setting menu.

Icon	Setting name	Setting value
	Prompt tone setting	Enabled, Disabled
	Backlight setting	5 level adjustment
	Calibration mode setting	Single-point calibration, Two-point calibration
	Higher limit setting	0.0 to 1,200 $\mu\text{m}$ <sup>*1</sup>
	Lower limit setting	0.0 to 1,200 $\mu\text{m}$ <sup>*2</sup>
	LED light setting	Enabled, Disabled
	Factory reset	Delete all settings, Format storage, Restore device
	Continuous mode	Continuous mode
	Delete saved data	Delete all saved data

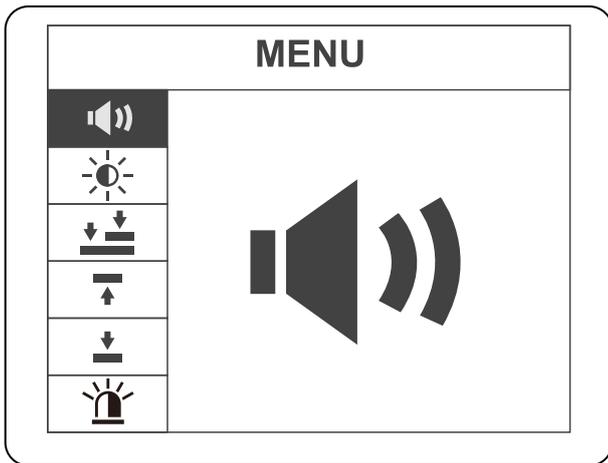
\*1 Values lower than the lower limit cannot be set.

\*2 Values higher than the higher limit cannot be set.

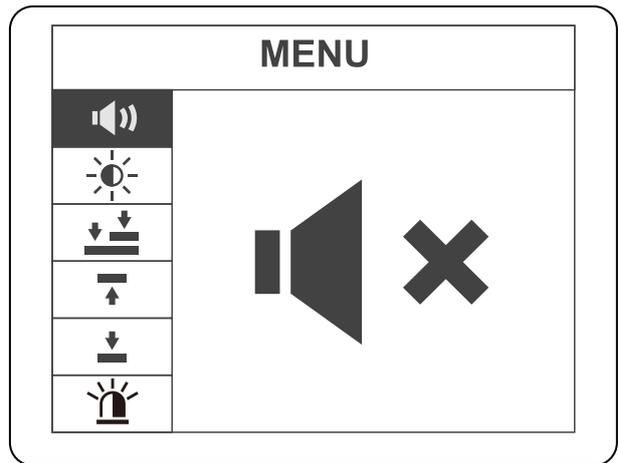
## 12-1 Prompt Tone Setting

You can enable or disable the prompt tone.

Press the  button on the  prompt tone setting in the setting menu, press the  or  button to change the setting, then press the  button to confirm.



**Enabled**

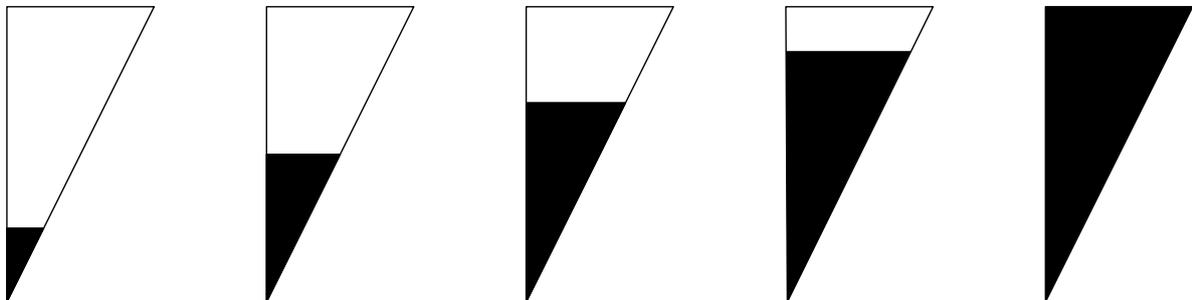


**Disabled**

## 12-2 Screen Backlight Setting

You can adjust the backlight to one of five levels.

Press the  button on the  screen brightness setting in the setting menu, press the  or  button to adjust the brightness, then press the  button to confirm.



**Dark**

**Bright**

## 12-3 Two-Point Calibration

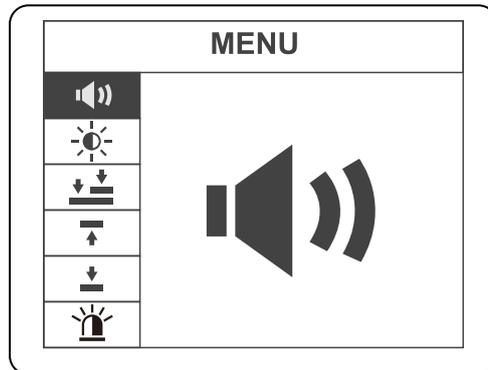
You can use two-point calibration to perform more precise measurement than single-point calibration.

For information on single-point calibration, please refer to page [17](#).

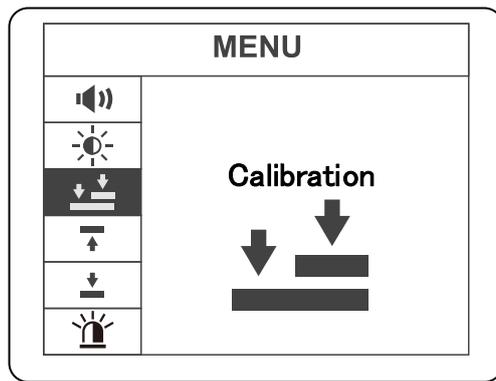
### CAUTION

**When performing calibration, it is necessary to select the zero-calibration plate for ferrous substrates or non-ferrous substrates according to the target for measurement.**

**Step 1.** Press the  button to display the following menu screen. Press the  or  button to select , then press the  button.



**Step 2.** When the picture of the zero-calibration plate changes from yellow to white, press the  or  button to select two-point calibration as indicated in the figure below, then press the  button.

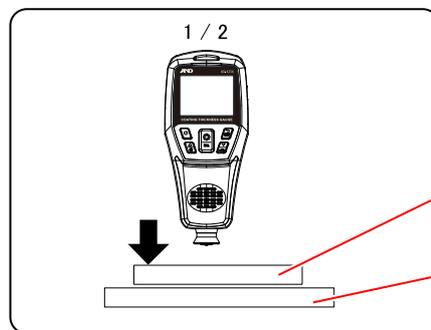


**Step 3.** Press the  button to return to the measurement screen.

**Step 4.** On the measurement screen, press and hold the  button for two seconds or longer.



**Step 5.** The following image is displayed. Place the test piece for calibration on the zero-calibration plate and then, press the product sensor against the test piece for calibration.



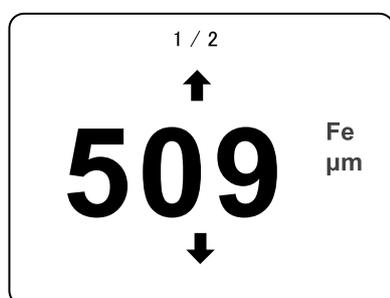
Test piece for calibration

Zero-calibration plate

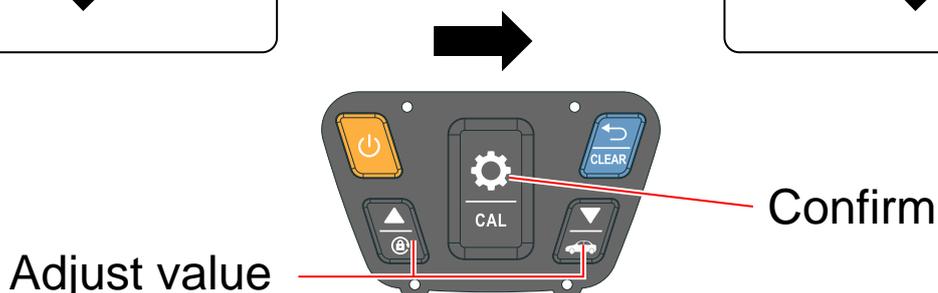
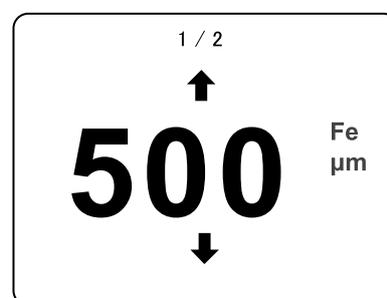
**Step 6.** When a tone sounds and the LED flashes green, release the sensor from the test piece for calibration.

**Step 7.** The thickness of the test piece for calibration is displayed. If there is an error with the test piece for calibration that you used, press the  button or the  button to set/correct the value, then press the  button to confirm.

Example) Setting 500  $\mu\text{m}$



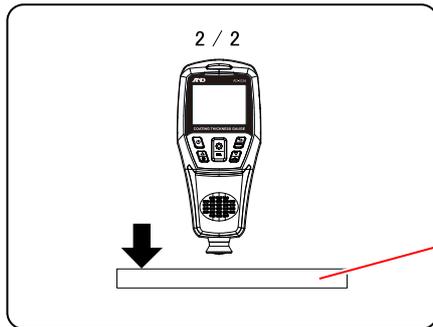
Press the  button 9 times, then press the  button.



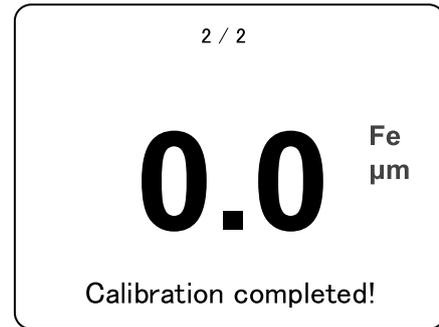
### CAUTION

You can press and hold the  or  button to change the second digit.

**Step 8.** Remove the adjustment test piece, then press the sensor against the zero-calibration plate. When the tone sounds and the LED flashes green, release the sensor from the zero-calibration plate. Calibration is complete when the measured thickness value is displayed as "0.0".



Zero-calibration plate



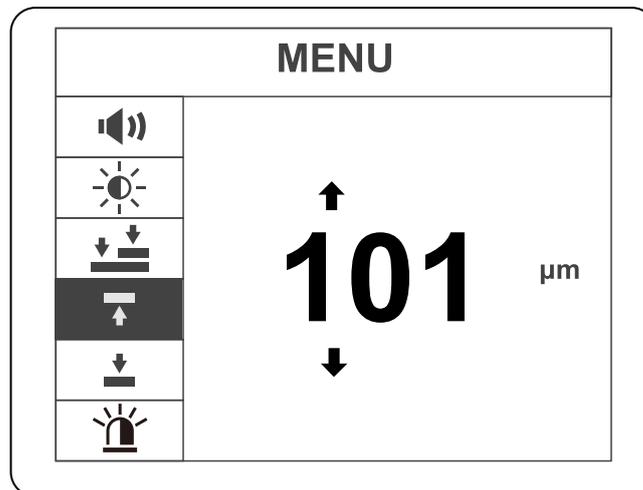
## 12-4 Alarm Function

You can set a higher and lower limit for the rated values to have the LED lamp notify the user when the rated value is outside the range of rated values (above the higher limit or below the lower limit).

### 12-4-1 Higher Limit Setting

You can set a higher limit for the measured value.

Press the  button on the  higher limit setting in the setting menu, press the  or  button to set the higher limit, then press the  button to confirm.

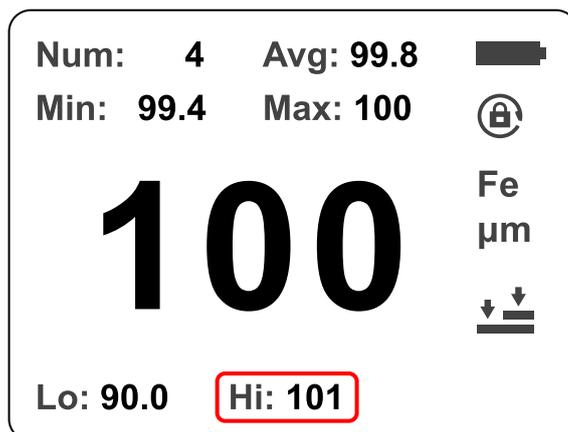


## CAUTION

A value lower than the lower limit cannot be set. The measurement screen display will change according to the higher limit setting.

## NOTE

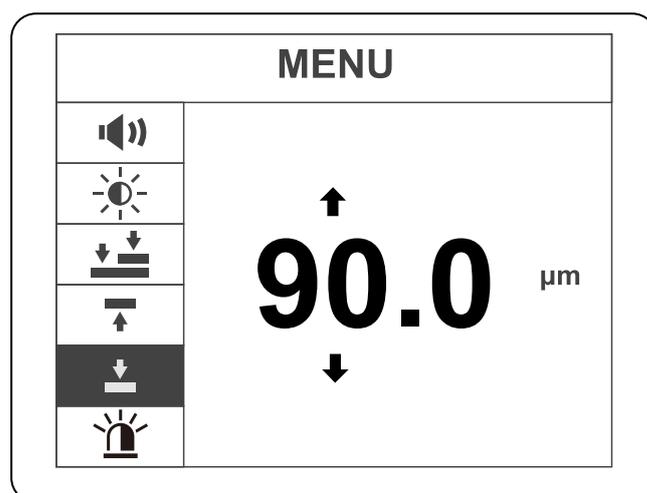
The display of the measurement screen changes according to the higher limit that is set.



### 12-4-2 Lower Limit Setting

You can set a lower limit for the measured value.

Press the  button on the  lower limit setting in the setting menu, press the  or  button to set the lower limit, then press the  button to confirm.

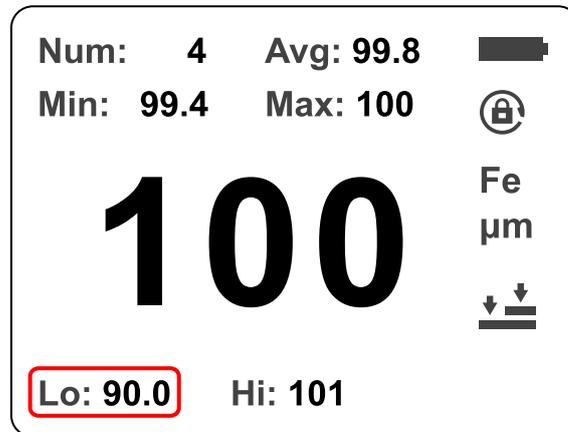


## CAUTION

A value higher than the higher limit cannot be set.

## NOTE

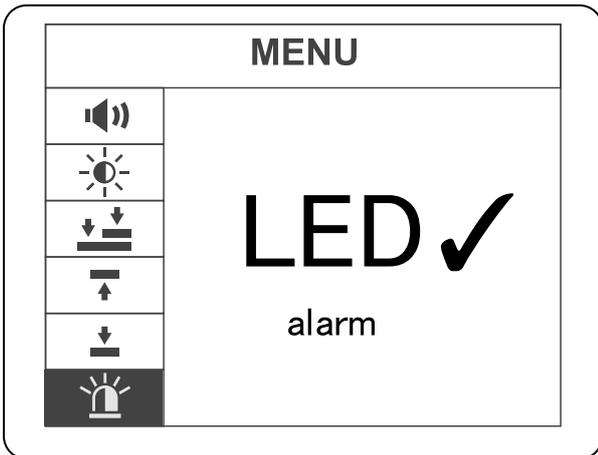
The measurement screen display will change according to the lower limit setting.



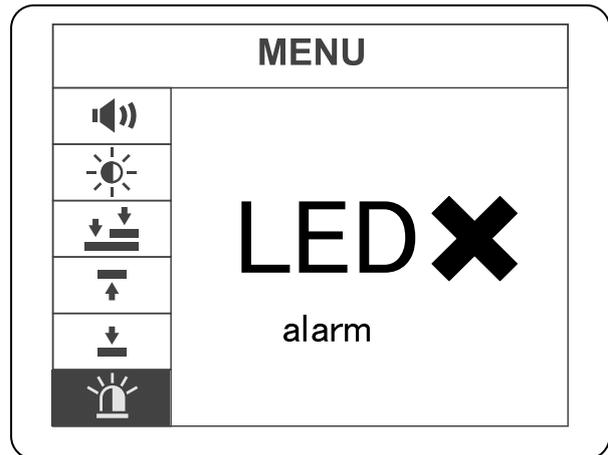
### 12-4-3 LED Lamp Setting

You can enable or disable the LED light.

Press the  button on the  LED light setting in the setting menu, press the  or  button to set it to enabled or disabled, then press the  button to confirm.



**Enabled**



**Disabled**

#### LED Light Colors

- Green : Pass
- Red : Value lower than rated value
- Orange : Value higher than rated value

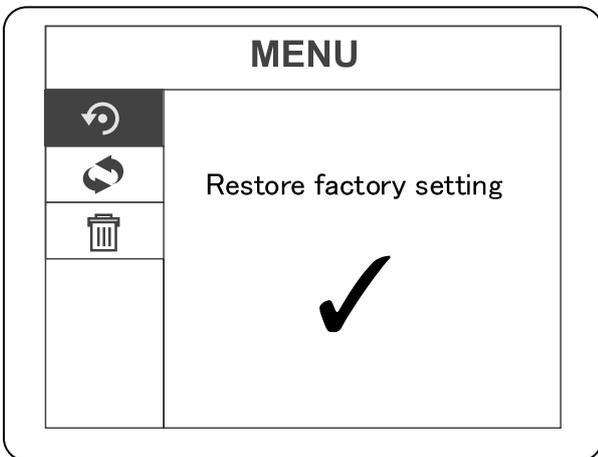
#### **CAUTION**

**The LED does not light in the above colors when the LED light is disabled.**

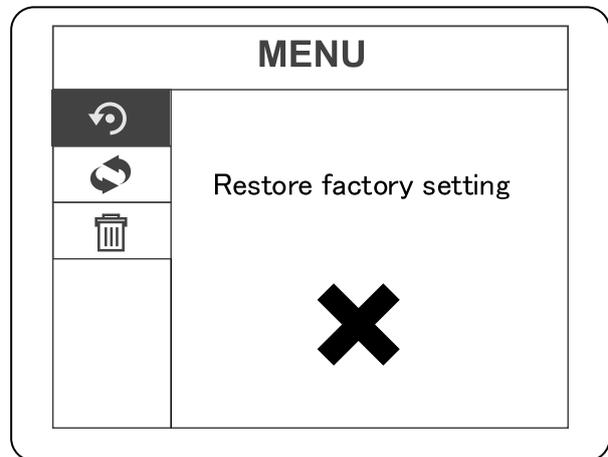
## 12-5 Device Initialization

Device initialization enables you to restore the default factory settings of the product. Perform device initialization when you want to restore the default factory settings or when the product does not operate normally.

**Step 1.** Press the  button on the  device initialization setting in the setting menu, then press the  or  button to execute or cancel the process.



**Execute**



**Cancel**

**Step 2.** When you press the  button on the execution screen, "Restoring..." is displayed for a few seconds, then "Done!" is displayed when initialization is complete.

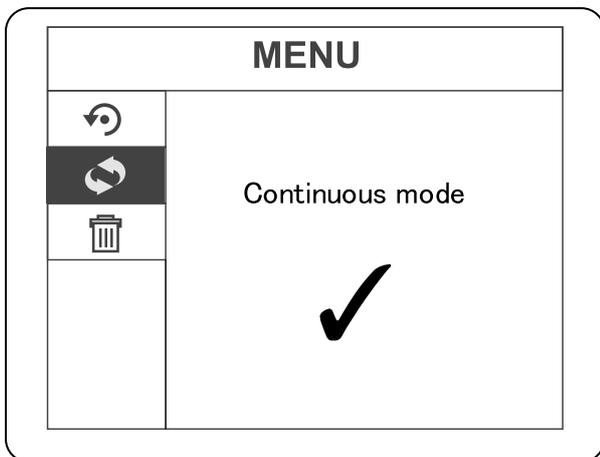
### CAUTION

**Device initialization deletes the saved data, so back up any required data beforehand .**

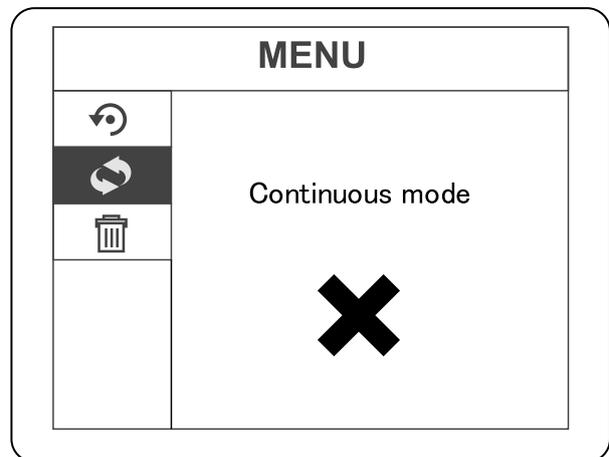
## 12-6 Continuous Measurement

You can perform continuous measurement while the sensor is pressed against the target for measurement.

Press the  button on the  continuous measurement setting in the setting menu, press the  or  button to set it to enabled or disabled, then press the  button to confirm.



**Enabled**



**Disabled**

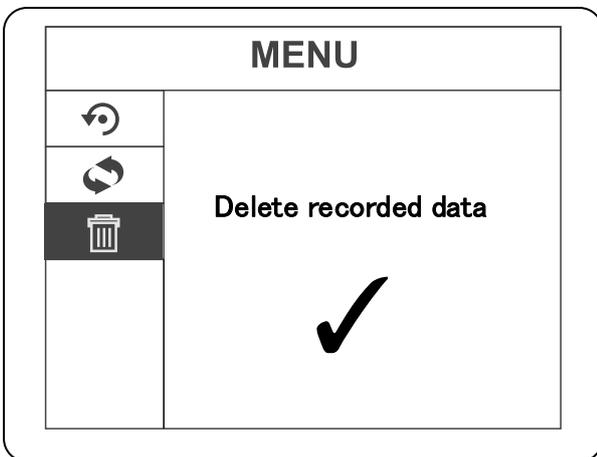
## 12-7 Deleting Data

You can delete all the data saved in the device.

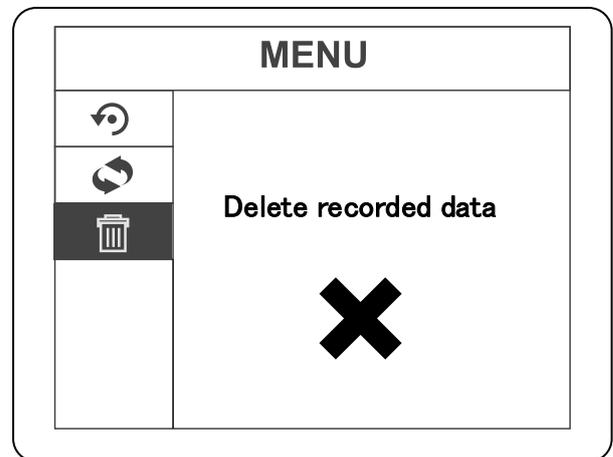
### CAUTION

**You cannot delete individual items of data using the product itself.**

**Step 1.** Press the  button on the  data deletion setting in the setting menu, then press the  or  button to execute or cancel the process.



**Execute**



**Cancel**

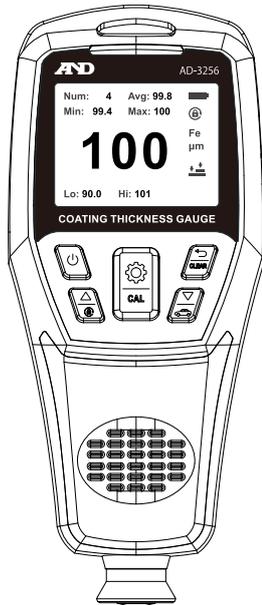
**Step 2.** When you press the  button on the execution screen, “Deleting...” is displayed for a few seconds, then “Done!” is displayed when the data has been deleted.

### NOTE

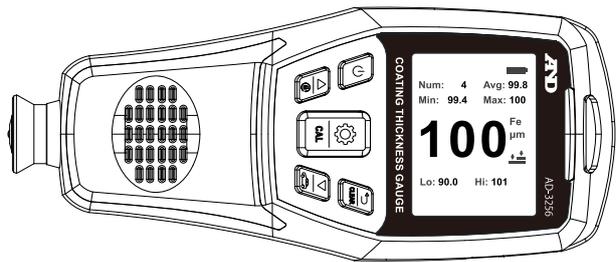
You can press and hold the  button on the measurement screen to delete all the data.

## 12-8 Automatic Screen Rotation Function

When the automatic screen rotation function is enabled, the screen automatically rotates according to the orientation of the product.



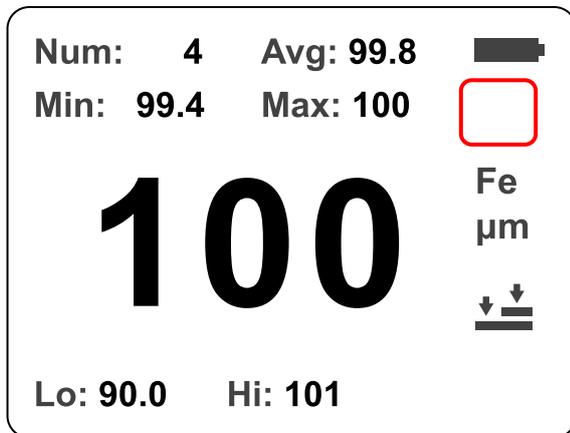
**Vertical orientation**



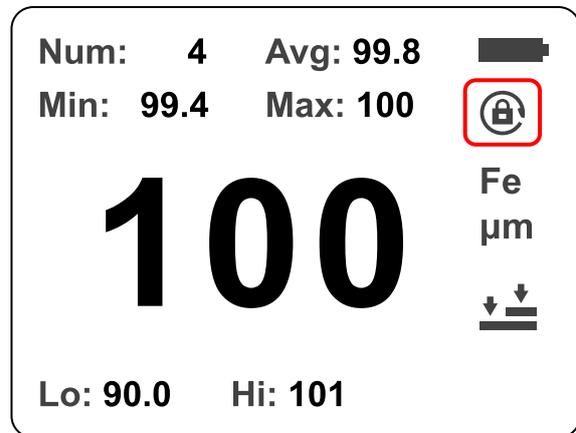
**Horizontal orientation**

If, for example, you want to lock the screen in vertical orientation, press and hold the  button while in the vertical display mode.

You can check whether the screen auto-rotation function is enabled or disabled from the measurement screen display, as below.



With automatic screen rotation enabled



With automatic screen rotation disabled

## 12-9 Judgment Mode

In judgment mode, measurements are taken without saving the data to check if they are within the set reference value. There are two judgment modes: 1-point judgment mode and 5-point judgment mode. The results are displayed based on the set reference value. "PASS" indicates the measurement is within the reference value, while "FAIL" indicates it is outside the reference value.

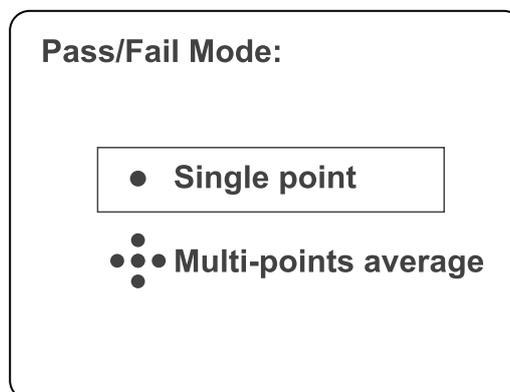
### CAUTION

**Measurement data is not saved when this mode is used.**

## Single-Point Judgment Mode

A single point is measured, and a judgment is made as to whether it is within the set reference value.

**Step 1.** Press and hold the  button on the management screen to display the following screen. Press the  button with "Single point"

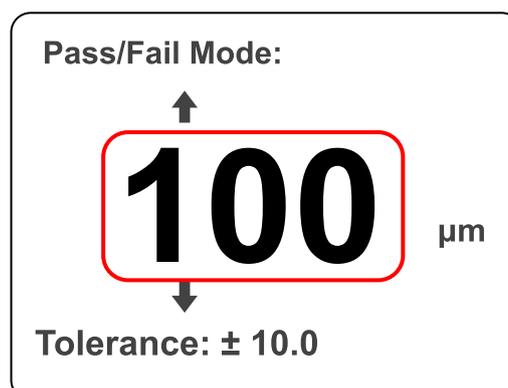


selected.

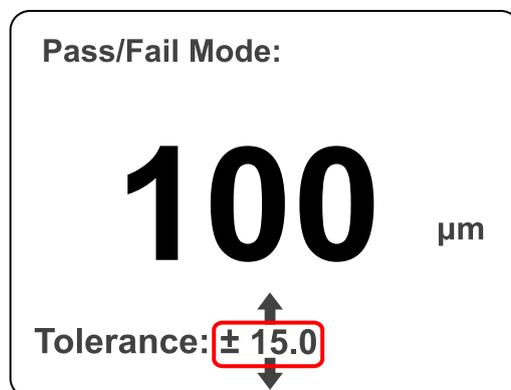
**Step 2.** Press the  or  button to set the reference value, then press the  button to confirm.

### NOTE

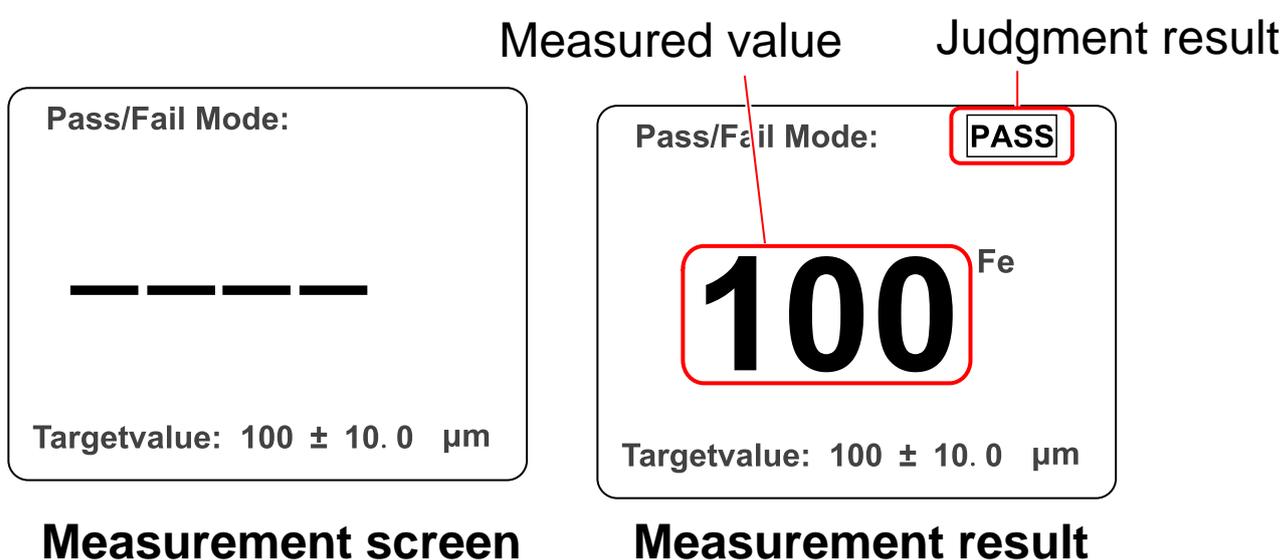
You can press and hold the  or  button to change the second digit.



**Step 3.** When the reference value is confirmed, the tolerance setting is displayed. Press the  or  button to set the tolerance, then press the  button to confirm.



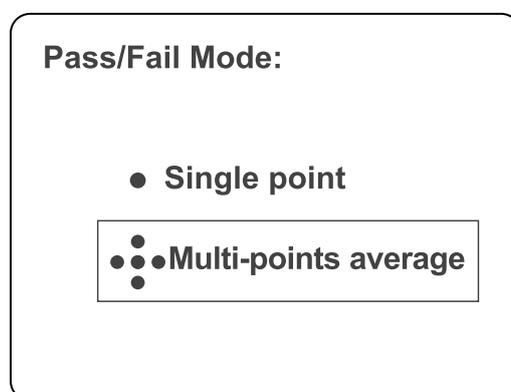
**Step 4.** When the settings are complete, the measurement screen is displayed. When the target is measured, the measurement result is displayed.



## Multi-Point Judgment Mode

Five points (A to E) are measured three times each and then, it is determined whether the average of the points is within the set reference value.

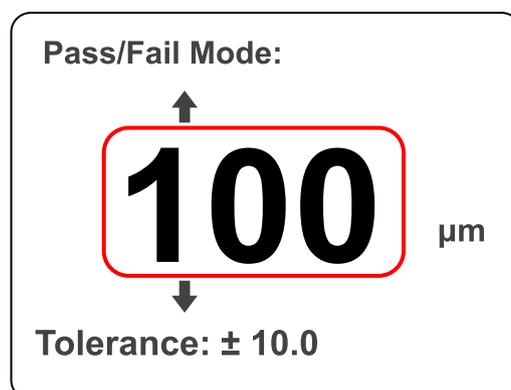
**Step 1.** Press and hold the  button on the management screen to display the following screen. Press the  button, then press the  button with “Multi-points average” selected.



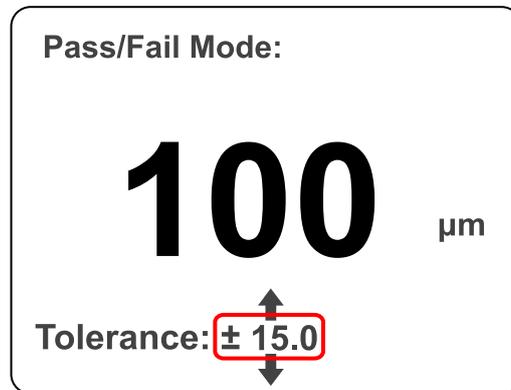
**Step 2.** Press the  or  button to set the reference value, then press the  button to confirm.

### NOTE

You can press and hold the  or  button to change the second digit.



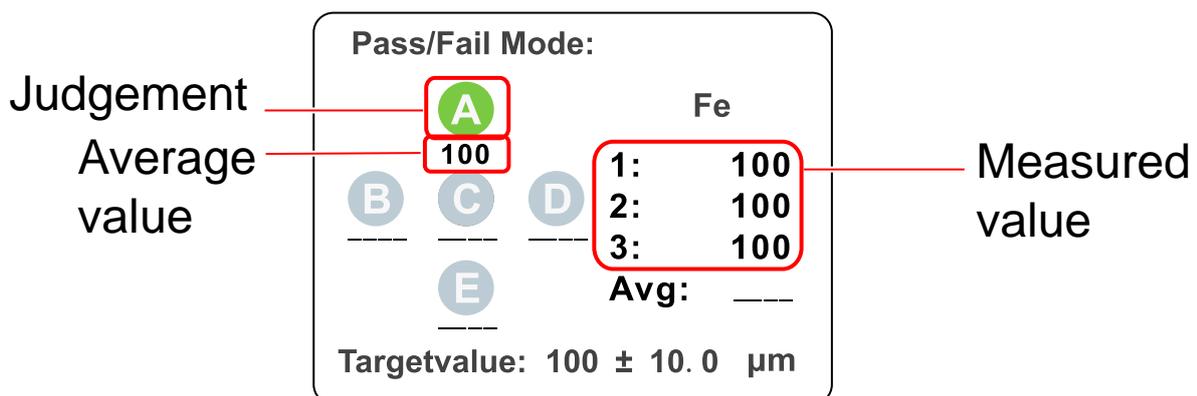
**Step 3.** When the reference value is confirmed, the tolerance setting is displayed. Press the  or  button to set the tolerance, then press the  button to confirm.



**Step 4.** When the settings are complete, measured values/average values are displayed, and the A point judgment is displayed in color.

### CAUTION

**Green indicates a judgement within the set reference value while red indicates a judgement outside.**

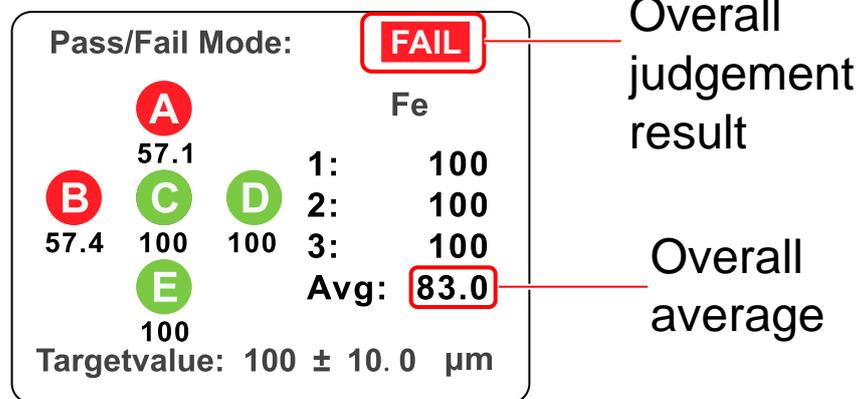


**Step 5.** Repeat step 4 for points B to E in the same manner as step 4.

When points A to E have been measured, the overall judgement result is displayed on the top right of the measurement screen.

## CAUTION

The overall judgment result is determined by comparing the average of all the points A to E with the set reference value.



# 13. Installing and Starting the Application

## 13-1 Download AD-3256 Logger

This application can transfer, save, output, and display measurement data. Download the application from the QR code labeled “AD-3256 Product Page” on page [5](#), “[1. Introduction](#),” or from the “AD-3256” product information page on the A&D website.

You can also download it using the QR code link below. Save the downloaded application to a location of your choice.

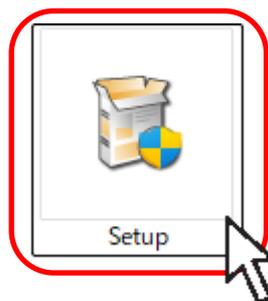


AD-3256 Logger

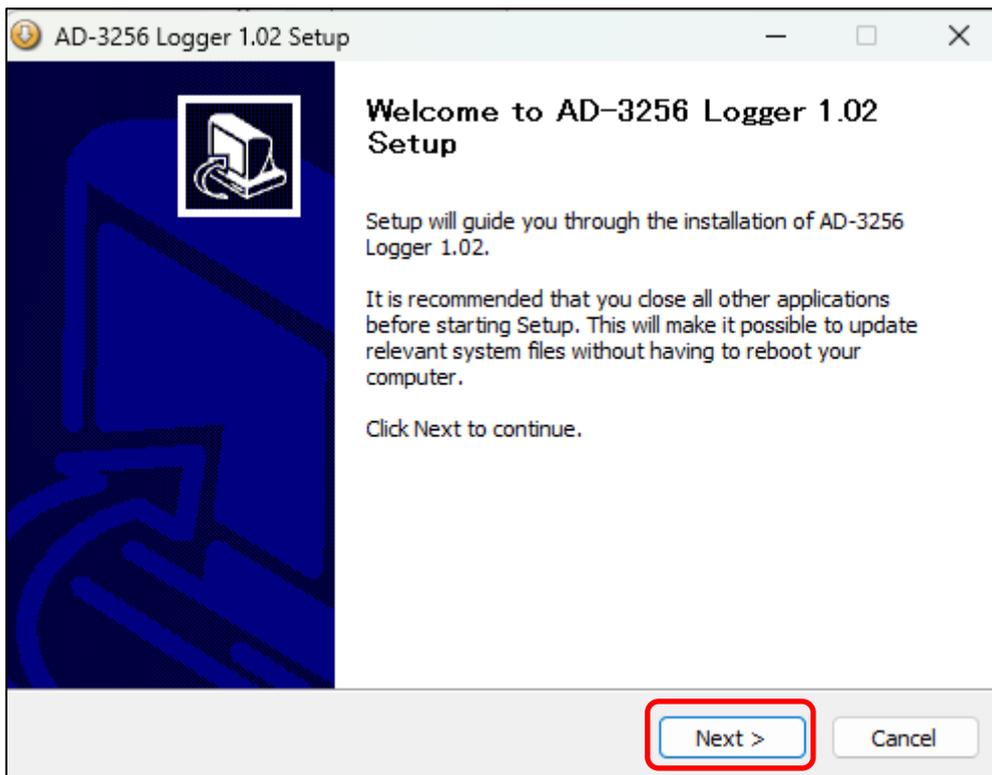
\*The software may be updated without notice, so the images in the instructions may differ.

## 13-2 Install AD-3256 Logger

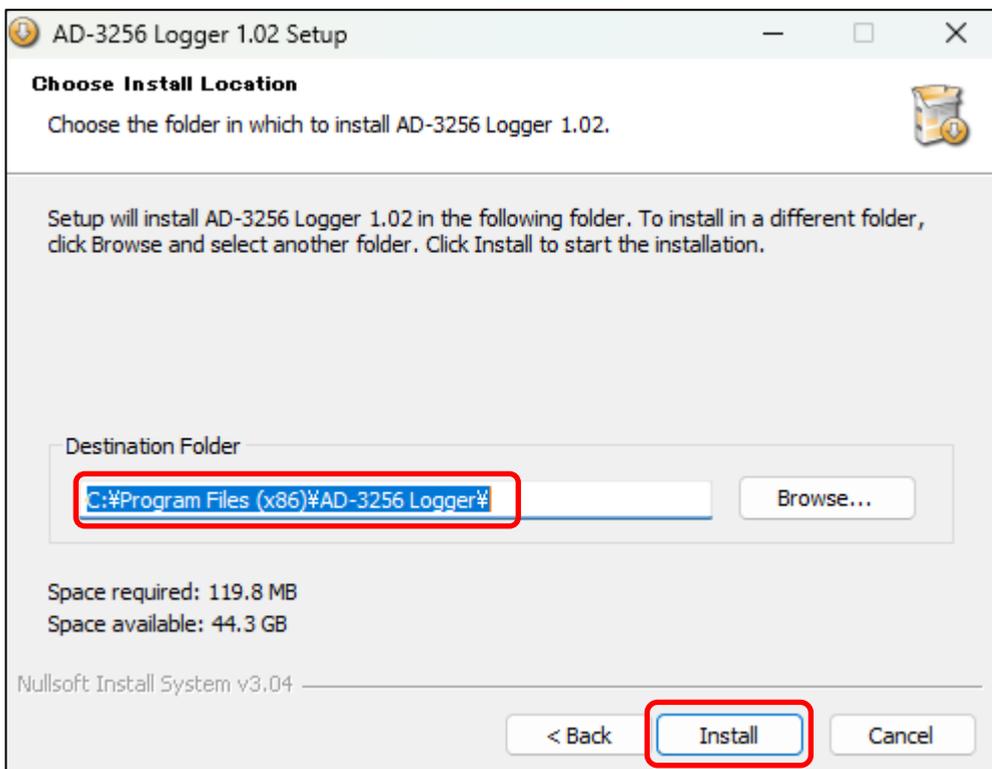
Right-click the zip file from the location you saved it to, select "Extract All," specify a folder to save it to, and click "Extract." Then, double-click the “Setup” installation file in the specified folder.



When the installation screen appears, click “Next.”



Confirm the destination folder and click “Install.” You can choose any location for the destination folder.



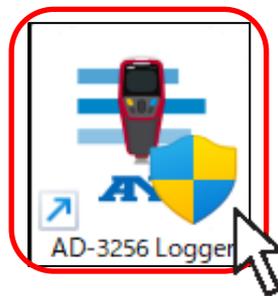
## 13-3 Start AD-3256 Logger

Follow these steps to run the application.

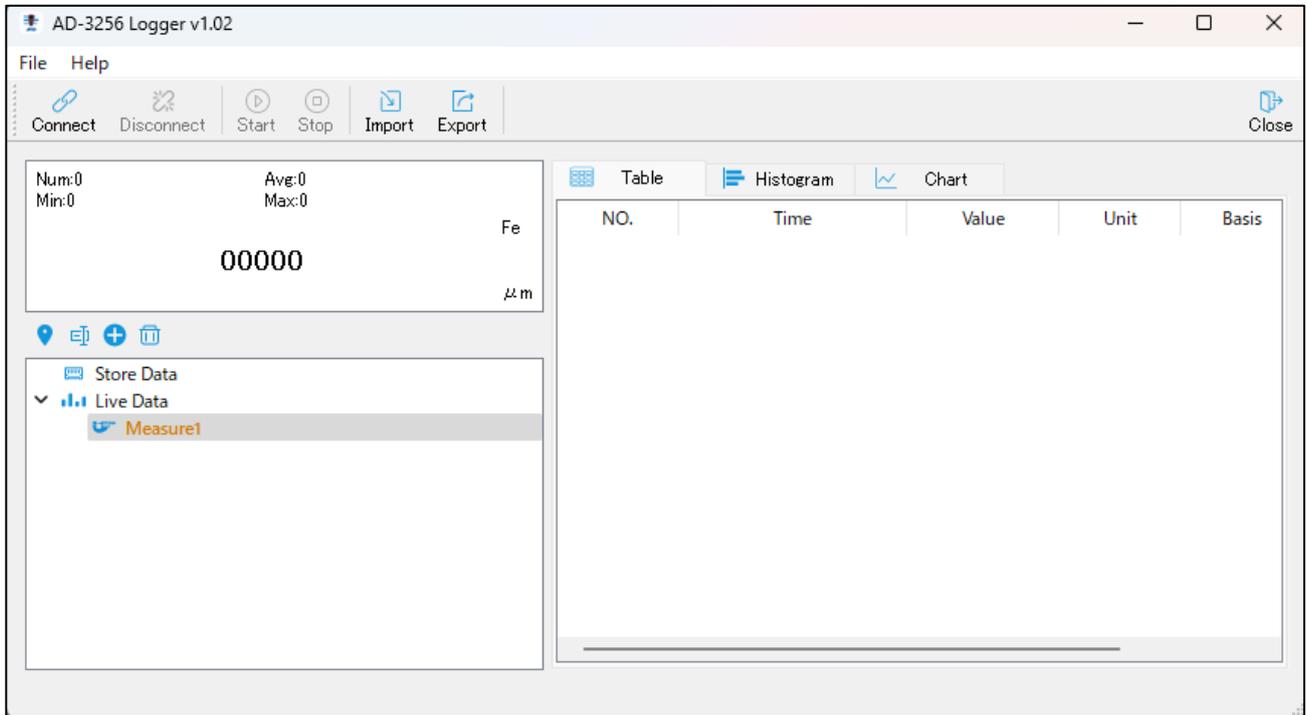
### CAUTION:

**You may be prompted by User Account Control for permission. Select “Yes” to proceed. If you select “No,” you will not be able to use this software.**

After the application installation is complete, the following shortcut icon will be created. Double-click the icon.



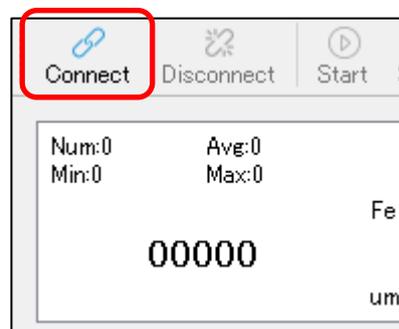
The application home screen will appear. Connect the device to the PC using the included USB cable and turn on the device.



## 13-4 Connect the Device

After connecting the device to the PC with a USB cable, perform the connection operation in the application.

Click "Connect" on the toolbar to enable the functions.



# 14. Display and Functions

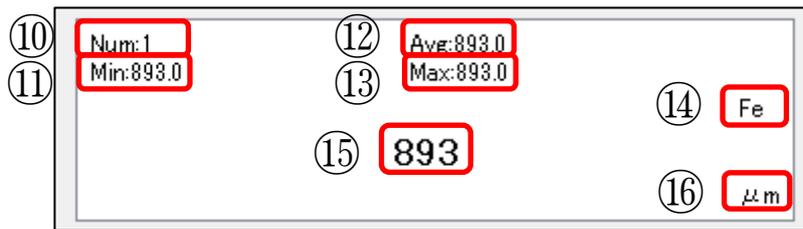
## 14-1 Menu and Toolbar



### Display icon

No.	Icon	Description
①		Executes the following functions: “Connect,” “Disconnect,” “Start,” “Stop,” “Import,” “Export,” and “Close.”
②		Displays the English instruction manual.
③		Starts the connection between the device and the application.
④		Terminates the connection between the device and the application.
⑤		Starts data acquisition in “Live Data.”
⑥		Stops data acquisition in “Live Data.”
⑦		Loads saved Excel data.
⑧		Saves the loaded data.
⑨		Exits the application.

## 14-2 Measurement Data Display



### Display icon

No.	Icon	Description
⑩	Num:	Measurement data count
⑪	Min:	Minimum value of measurement data
⑫	Ave:	Average value of measurement data
⑬	Max:	Maximum value of measurement data
⑭	Fe	Automatically detected substrate type (Fe: Ferrous, NFe: Non-ferrous)
⑮	893	Measurement value
⑯	μm	Measurement unit

## 14-3 Folder Display and Operations



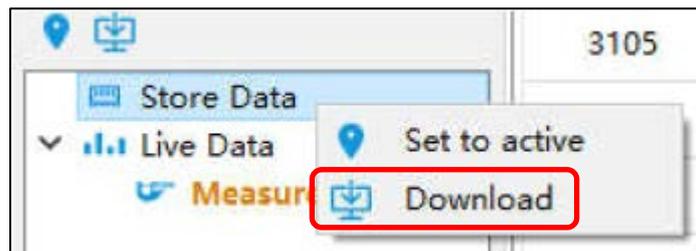
### Display icon

No.	Icon	Description
①7		Displays the data from the selected folder.
①8		Changes the selected folder name.
①9		Creates a new folder.
②0		Deletes the folder.
②1		Displays and loads data from the device. * For details, refer to “ <a href="#">15. Checking Measurement Data on a PC</a> ” on page <a href="#">49</a> .
②2		Shows/hides the contents of the Live Data folder.
②3		Opens the "Live Data" management screen. * For details, refer to “ <a href="#">17. Displaying Live Data</a> ” on page <a href="#">58</a> .

## 15. Checking Measurement Data on a PC

This product automatically records data with each measurement. Recorded data cannot be checked on the device itself. To check the recorded data, use the application or save the data to a PC.

Right click “Store Data,” then click “Download.”



When you click “Download”, “Downloading data” will be displayed. Once loading is complete, you can check the measurement data as shown below.

⑥

NO.	Time	Value	Unit	Basis
1	2024-11-25 09:39:26	867	μm	Fe
2	2024-11-25 09:39:26	867	μm	Fe
3	2024-11-25 09:39:26	867	μm	Fe
4	2024-11-25 09:39:26	867	μm	Fe
5	2024-11-25 09:39:26	867	μm	Fe
6	2024-11-25 09:39:26	867	μm	Fe

①                      ②                      ③                      ④                      ⑤

### Display icon

No.	Description
①	Displays the serial number.
②	Displays the time the measurement data was loaded.
③	Displays the film thickness measurement.
④	Displays the measurement unit.
⑤	Displays the substrate of the measured object.
⑥	The display type can be selected using the tabs.

## 16. Saving Data

You can save data in Excel (XLS), JPG and PDF formats.

### 16-1 Save Data in Excel Format

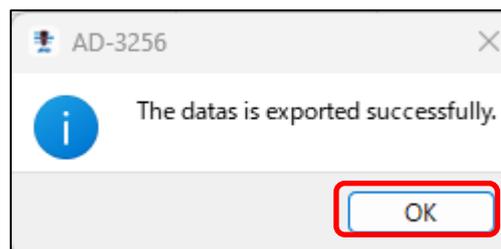
**Step 1.** Click “Export” on the toolbar.



**Step 2.** Select “Table (XLS),” then click “OK.”



**Step 3.** When “The datas is exported successfully.” is displayed, click “OK.”



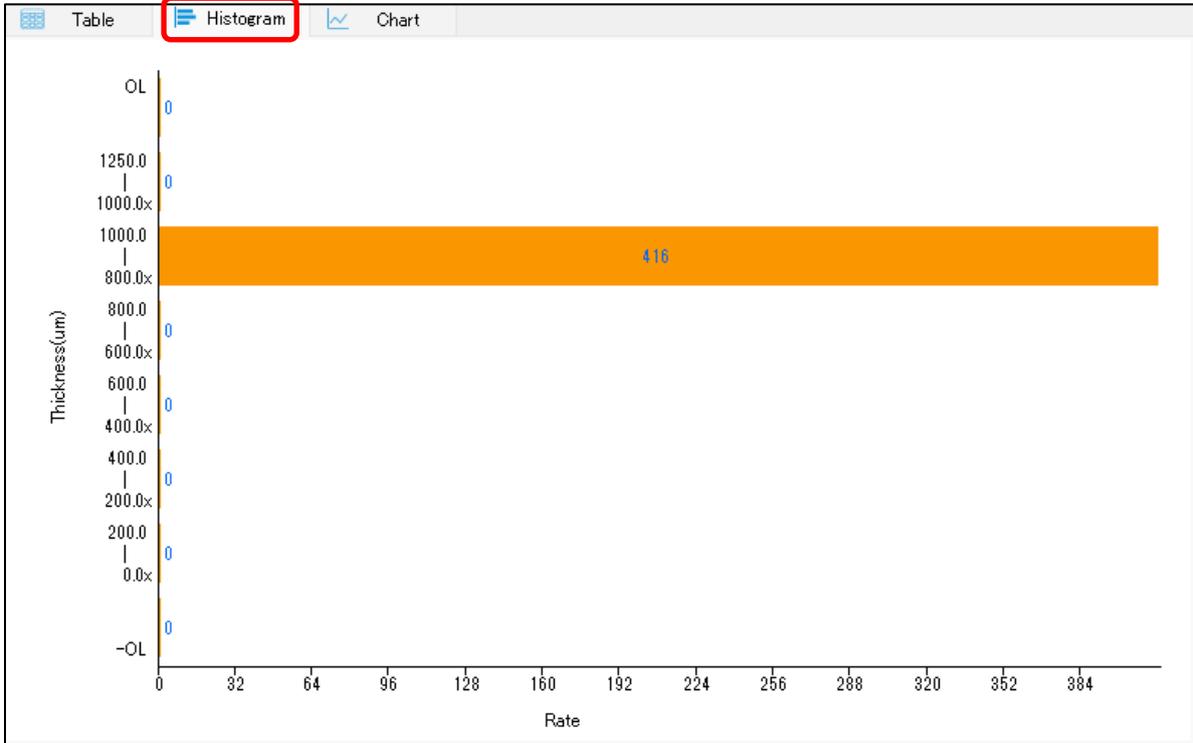
**Step 4.** Specify a save destination and filename, then click "Save".

	A	B	C	D	E	F	G	H
1	No.	Time	Value	Unit	Basis			
2	1	2024-11-25 09:39:26	867	μ m	Fe			
3	2	2024-11-25 09:39:26	867	μ m	Fe			
4	3	2024-11-25 09:39:26	867	μ m	Fe			
5	4	2024-11-25 09:39:26	867	μ m	Fe			
6	5	2024-11-25 09:39:26	867	μ m	Fe			
7	6	2024-11-25 09:39:26	867	μ m	Fe			
8	7	2024-11-25 09:39:26	867	μ m	Fe			
9	8	2024-11-25 09:39:26	867	μ m	Fe			
10	9	2024-11-25 09:39:26	867	μ m	Fe			

Excel save data example

# 16-2 Save Data in JPG Format

**Step 1.** Set the home screen display tab to “Histogram” or “Chart.”



Histogram display screen example

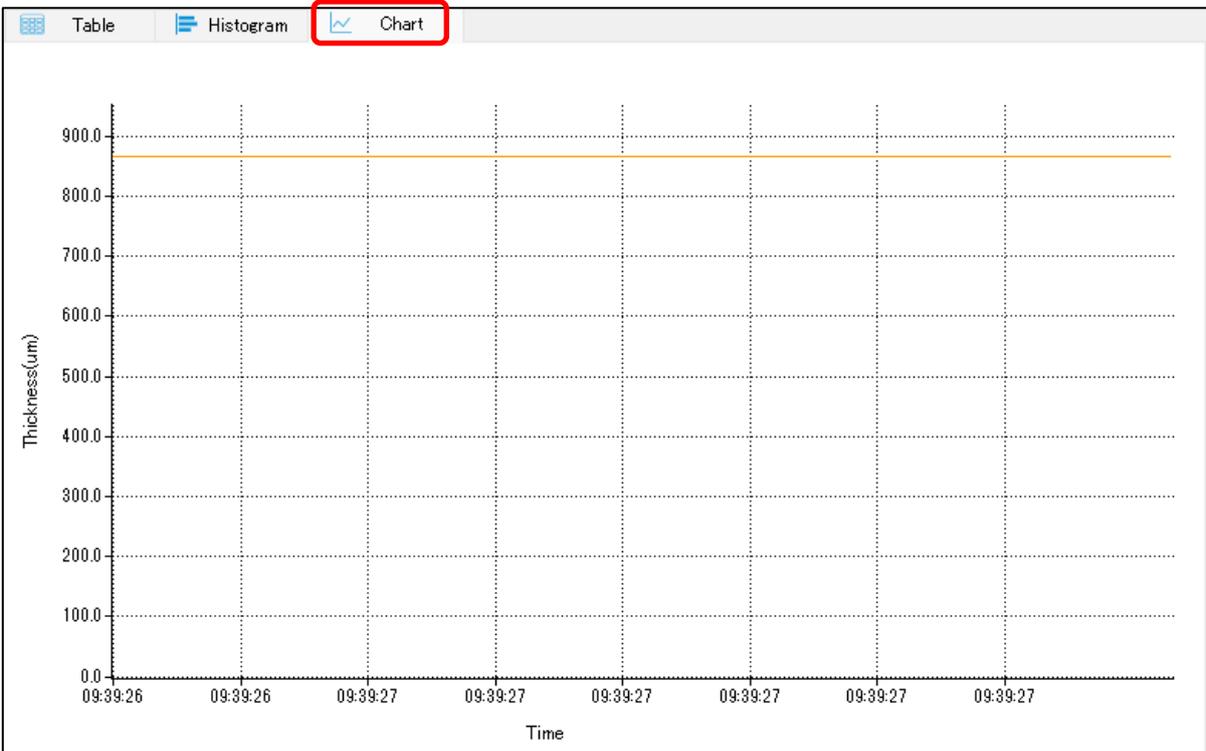


Chart display screen example

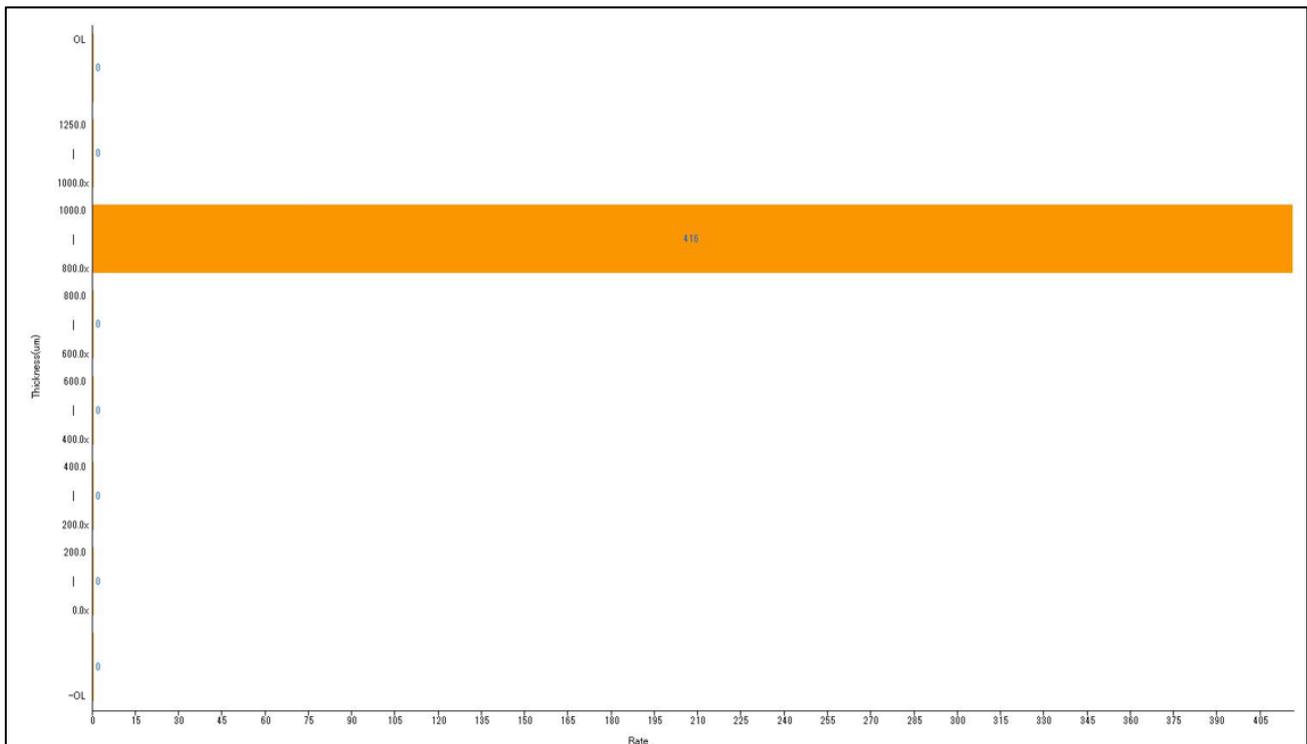
**Step 2.** Click “Export” on the toolbar.



**Step 3.** Select “Histogram” or “Chart”.



**Step 4.** Specify a save destination and filename, then click "Save".



Histogram save data example

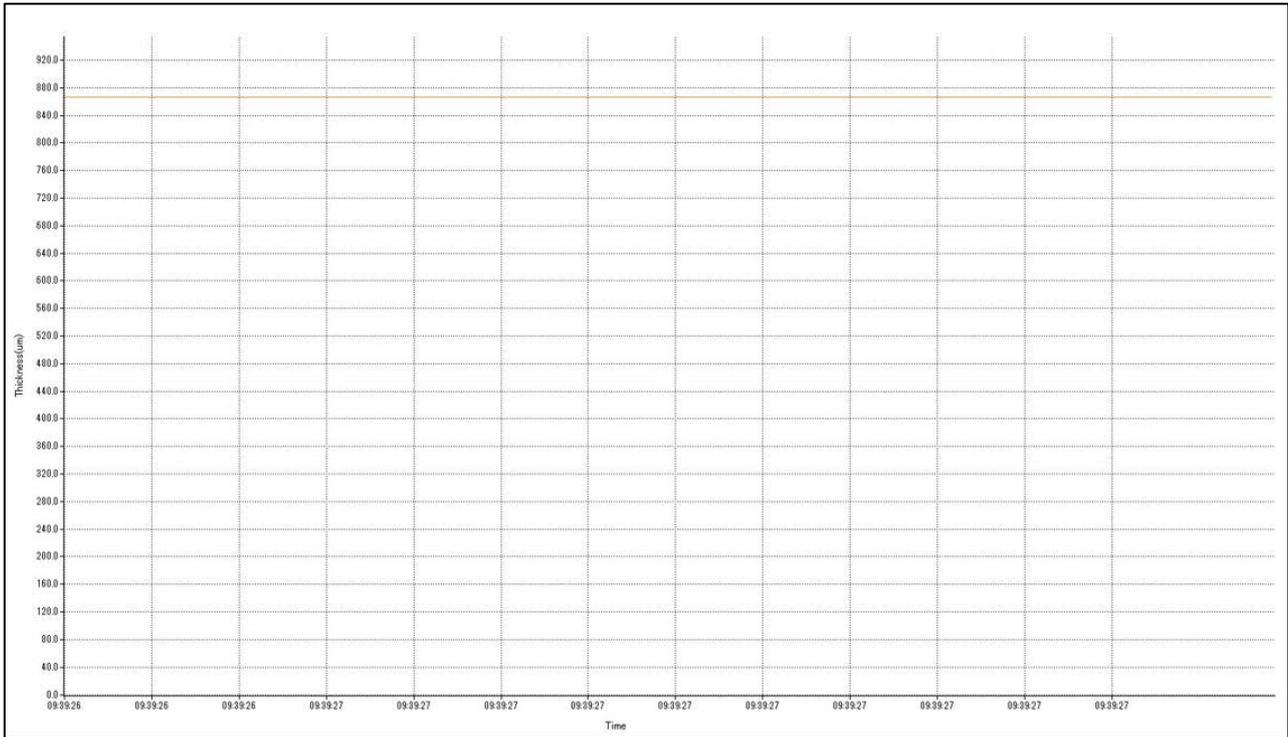


Chart save data example

### 16-3 Save Data in PDF Format

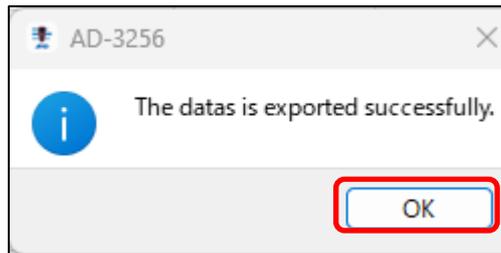
Step 1. Click “Export” on the toolbar.



Step 2. Select “PDF”.



**Step 3.** When “The datas is exported successfully.” is displayed, click “OK.”



Histogram  
data

Chart  
data



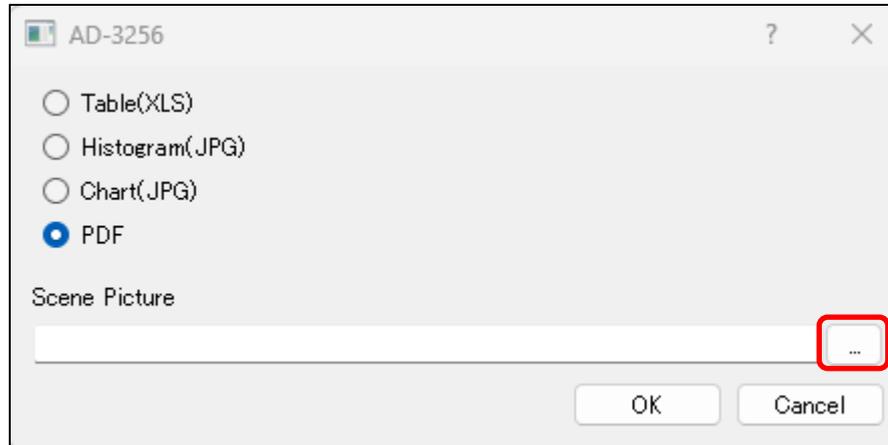
Excel  
data

No.	Time	Value	Unit	Base
1	2004-11-25 08:39:28	887	mm	Fr
2	2004-11-25 08:39:28	887	mm	Fr
3	2004-11-25 08:39:28	887	mm	Fr
4	2004-11-25 08:39:28	887	mm	Fr
5	2004-11-25 08:39:28	887	mm	Fr
6	2004-11-25 08:39:28	887	mm	Fr
7	2004-11-25 08:39:28	887	mm	Fr
8	2004-11-25 08:39:28	887	mm	Fr
9	2004-11-25 08:39:28	887	mm	Fr
10	2004-11-25 08:39:28	887	mm	Fr
11	2004-11-25 08:39:28	887	mm	Fr
12	2004-11-25 08:39:28	887	mm	Fr
13	2004-11-25 08:39:28	887	mm	Fr
14	2004-11-25 08:39:28	887	mm	Fr
15	2004-11-25 08:39:28	887	mm	Fr
16	2004-11-25 08:39:28	887	mm	Fr
17	2004-11-25 08:39:28	887	mm	Fr
18	2004-11-25 08:39:28	887	mm	Fr
19	2004-11-25 08:39:28	887	mm	Fr
20	2004-11-25 08:39:28	887	mm	Fr
21	2004-11-25 08:39:28	887	mm	Fr
22	2004-11-25 08:39:28	887	mm	Fr
23	2004-11-25 08:39:28	887	mm	Fr
24	2004-11-25 08:39:28	887	mm	Fr
25	2004-11-25 08:39:28	887	mm	Fr
26	2004-11-25 08:39:28	887	mm	Fr
27	2004-11-25 08:39:28	887	mm	Fr
28	2004-11-25 08:39:28	887	mm	Fr
29	2004-11-25 08:39:28	887	mm	Fr
30	2004-11-25 08:39:28	887	mm	Fr
31	2004-11-25 08:39:28	887	mm	Fr
32	2004-11-25 08:39:28	887	mm	Fr
33	2004-11-25 08:39:28	887	mm	Fr
34	2004-11-25 08:39:28	887	mm	Fr
35	2004-11-25 08:39:28	887	mm	Fr
36	2004-11-25 08:39:28	887	mm	Fr
37	2004-11-25 08:39:28	887	mm	Fr
38	2004-11-25 08:39:28	887	mm	Fr
39	2004-11-25 08:39:28	887	mm	Fr
40	2004-11-25 08:39:28	887	mm	Fr

PDF saved data example

## NOTE

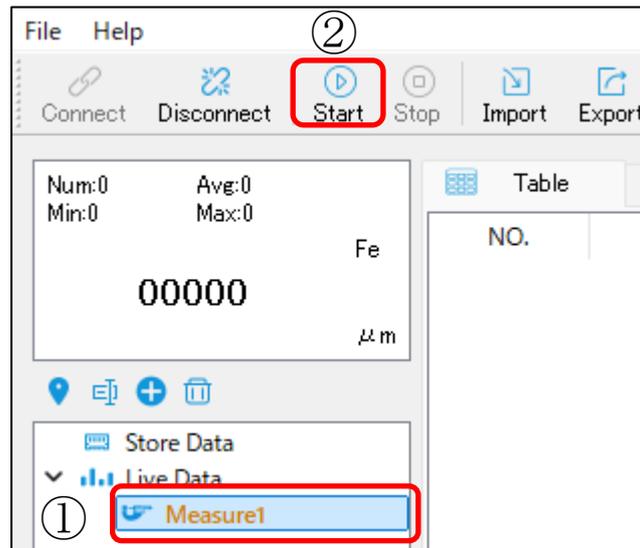
To insert an image as the first page of the PDF file, click "..." next to "Scene Picture" and select the desired image.



## 17. Displaying Live Data

“Live Data” displays measurement data in real-time on the application. (Data entries: Over 500 items)

**Step 1.** Double-click ① "Measure1", then click ② "Start".



**Step 2.** Press the sensor against the object to be measured and take the measurement.

The measurement results are displayed as shown below.

The screenshot shows a software interface with a top toolbar containing 'Connect', 'Disconnect', 'Start', 'Stop', 'Import', and 'Export'. Below the toolbar, there are three tabs: 'Table', 'Histogram', and 'Chart'. The 'Table' tab is active, displaying a table with 7 rows of data. The table columns are 'NO.', 'Time', 'Value', 'Unit', and 'Basis'. The data is as follows:

NO.	Time	Value	Unit	Basis
1	2024-11-25 14:27:49	840	μm	Fe
2	2024-11-25 14:27:52	825	μm	Fe
3	2024-11-25 14:27:54	830	μm	Fe
4	2024-11-25 14:27:57	848	μm	Fe
5	2024-11-25 14:27:59	854	μm	Fe
6	2024-11-25 14:28:01	854	μm	Fe
7	2024-11-25 14:28:03	856	μm	Fe

On the left side of the interface, there is a summary panel showing 'Num:7', 'Avg:843.9', 'Min:825.0', and 'Max:856.0'. Below this, the unit 'Fe' and 'μm' are listed, along with a large display of the value '856'. At the bottom left, there are icons for 'Store Data', 'Live Data', and 'Measure1'.

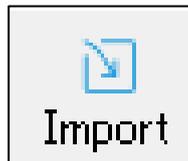
**Step 3.** Click “Stop” to stop acquiring measurement data.

This screenshot is identical to the one above, but the 'Stop' button in the top toolbar is highlighted with a red circle. The table of data and the summary panel on the left remain the same.

## 18. Loading Save Data

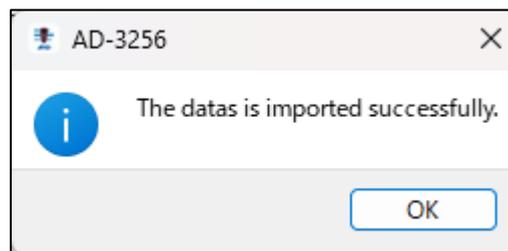
Loads saved data and displays it.

**Step 1.** Click “Import” on the toolbar.

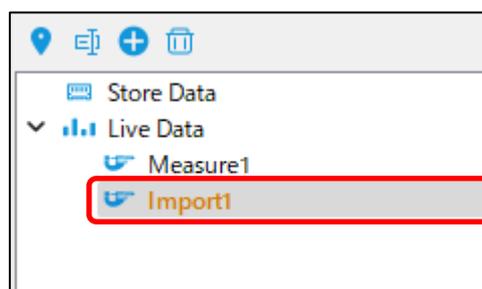


**Step 2.** Select saved data.

**Step 3.** When “The datas is imported successfully.” is displayed, click “OK”.



Measurement data is displayed in "Table". Graphs are displayed in "Histogram" and "Chart".



## 19. Troubleshooting

Nothing is displayed.	Check the battery level.
The screen is faint and hard to see.	<ul style="list-style-type: none"><li>• Check the battery level.</li><li>• The LCD display is fainter in low temperature environments, but this is normal.</li></ul>
The product does not operate normally.	<ul style="list-style-type: none"><li>• The internal circuits may have stopped operating for some reason. Turn the power of the product OFF, wait about one minute, then turn the power ON again.</li><li>• Perform the procedure in “<a href="#">12-5 Device Initialization</a>” on page <a href="#">33</a>.</li><li>• When the battery level is low, the product may not operate properly. Try replacing it with a new battery.</li></ul>
The measurement results are obviously wrong.	<ul style="list-style-type: none"><li>• The zero point may be incorrect. Perform the procedure indicated in “<a href="#">10-1 Calibration</a>” on page <a href="#">16</a> or “<a href="#">12-3 Two-Point Calibration</a>” on page <a href="#">25</a>.</li><li>• The substrate type of the zero-calibration plate used for zero-point calibration may differ from the substrate type of the target for measurement. Perform zero-point calibration again using the zero-calibration plate that matches the substrate type of the object for measurement.</li><li>• Residual magnetism may affect the measured values.</li></ul>

<p>The device's screen freezes.</p>	<p>When the device is connected to a PC but not connected (communicating) with the application, the device's screen may freeze during measurement.</p> <p>In such cases, disconnect the USB cable from the device and reconnect it. The measurement values will be displayed, and the device will become operational again.</p>
<p>The data from “Histogram” or “Chart” cannot be saved properly.</p>	<p>Follow the procedure in “<a href="#">16-2 Save Data in JPG Format</a>” on page <a href="#">53</a>.</p>

## 20. Specifications

Item	Description
Measurement method	Electromagnetic / eddy-current
Measurement range	0 to 1,250 $\mu\text{m}$
Resolution	0.1 $\mu\text{m}$ (0.0 to 99.9 $\mu\text{m}$ ) 1 $\mu\text{m}$ (100 to 1,250 $\mu\text{m}$ )
Measurement precision	$\pm (3\% + 5) \mu\text{m}$ (0 to 99.9 $\mu\text{m}$ ) $\pm (3\% + 1) \mu\text{m}$ (100 to 1,250 $\mu\text{m}$ )
Operating temperature and humidity	0 to 40°C; $\leq 80\%$ RH (without condensation)
Storage temperature and humidity	-20 to 60°C; $\leq 75\%$ RH (without condensation)
Maximum saved data count	500 items
Auto power OFF	Approx. 5 minutes
Output type	USB (via computer software)
Power	AA battery $\times 2$
Battery life	Approx. 6 hours (when using alkaline batteries)
Dimensions	65 (W) $\times$ 152 (H) $\times$ 41 (D) mm
Weight	Approx. 180 g (incl. batteries)
Material	Main unit: ABS, thermoplastic rubber Screen: PC Buttons: Silicone Sensor: Copper alloy

Item	Description
Accessories	Zero-calibration plate (for ferrous substrate × 1, for non-ferrous substrate × 1) Adjustment test piece Micro-USB cable (Type-A to Type-B) Carrying case Sensor cap Strap Battery (for monitoring) Simplified instruction manual
Products sold separately	Battery cover: AXP-AD3256-1 Sensor cap: AXP-AD3256-2 Carrying case: AXP-AD3256-3 Zero-calibration plates and adjustment test piece: AXP-AD3256-4



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### **A&D Company, Limited**

3-23-14 Higashi-Ikebukuro, Toshima-ku, Tokyo 170-0013, JAPAN  
Telephone: [81] (3) 5391-6132 Fax: [81] (3) 5391-1566

### **A&D ENGINEERING, INC.**

47747 Warm Springs Blvd, Fremont, California 94539, U.S.A.  
Tel: [1] (800) 726-3364 Weighing Support:[1] (888) 726-5931 Inspection Support:[1] (855) 332-8815

### **A&D INSTRUMENTS LIMITED**

Unit 24/26 Blacklands Way, Abingdon Business Park, Abingdon, Oxfordshire OX14 1DY United Kingdom  
Telephone: [44] (1235) 550420 Fax: [44] (1235) 550485

### **A&D AUSTRALASIA PTY LTD**

32 Dew Street, Thebarton, South Australia 5031, AUSTRALIA  
Telephone: [61] (8) 8301-8100 Fax: [61] (8) 8352-7409

### **A&D KOREA Limited**

한국에이.엔.디(주)  
서울특별시 영등포구 국제금융로6길33 (여의도동) 맨하탄빌딩 817 우편 번호 07331  
( 817, Manhattan Bldg., 33. Gukjegeumyung-ro 6-gil, Yeongdeungpo-gu, Seoul, 07331 Korea )  
전화: [82] (2) 780-4101 팩스: [82] (2) 782-4264

### **ООО A&D RUS**

### **ООО "ЭЙ энд ДИ РУС"**

Почтовый адрес:121357, Российская Федерация, г.Москва, ул. Вереysкая, дом 17  
Юридический адрес: 117545, Российская Федерация, г. Москва, ул. Дорожная, д.3, корп.6, комн. 86  
( 121357, Russian Federation, Moscow, Vereyskaya Street 17 )  
тел.: [7] (495) 937-33-44 факс: [7] (495) 937-55-66

### **A&D Instruments India Private Limited**

### **ऐ&डी इन्स्ट्रुमेंट्स इण्डिया प्रा० लिमिटेड**

D-48, उद्योग विहार , फेस -5, गुडगांव - 122016, हरियाणा , भारत  
( D-48, Udyog Vihar, Phase-V, Gurgaon - 122016, Haryana, India )  
फोन : [91] (124) 4715555 फैक्स : [91] (124) 4715599

### **A&D SCIENTECH TAIWAN LIMITED. 艾安得股份有限公司**

台湾台北市中山區南京東路2段206號11樓之2  
( 11F-2, No.206, Sec.2, Nanjing E.Rd., Zhongshan Dist., Taipei City 10489, Taiwan, R.O.C. )  
Tel : [886](02) 2322-4722 Fax : [886](02) 2392-1794

### **A&D INSTRUMENTS (THAILAND) LIMITED**

### **บริษัท เอ แอนด์ ดี อินสตรูमेंท์ (ไทยแลนด์) จำกัด**

168/16 หมู่ที่ 1 ตำบลรังสิต อำเภอธัญบุรี จังหวัดปทุมธานี 12110 ประเทศไทย  
( 168/16 Moo 1, Rangsit, Thanyaburi, Pathumthani 12110 Thailand )  
Tel : [66] 20038911