



INDUSTRIAL  
ENGINEERING

# EAGLEYE PDR<sup>®</sup> MULTI-CHANNEL DATA RECORDER MANUAL OF USE / V0.1



*Don't worry about it !*

# EAGLEYE PDR

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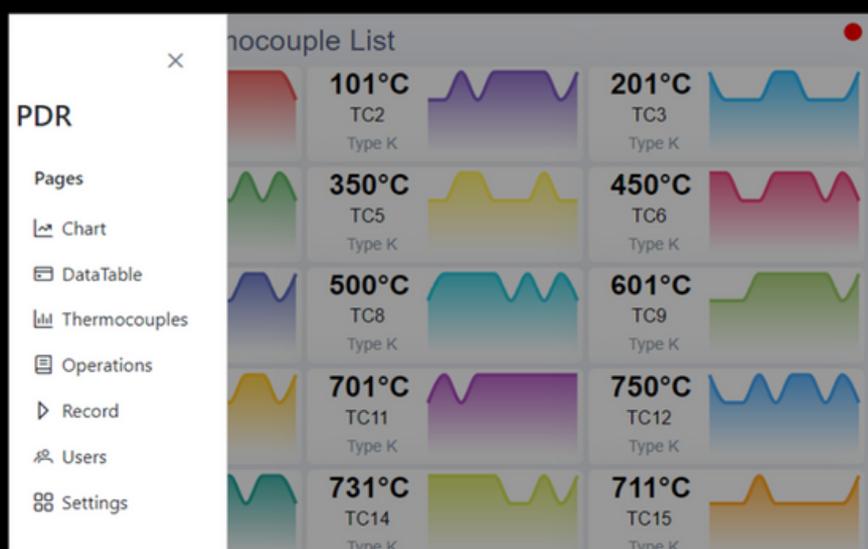
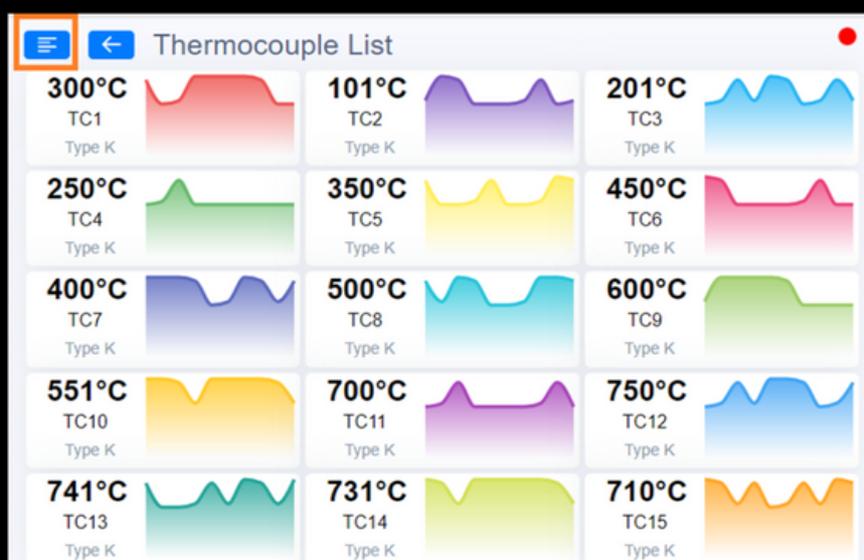
PDR is a multi-channel data acquisition device. The collected data can be reported with QRD software according to standards such as NADCP, AMS2750, CQI-9.

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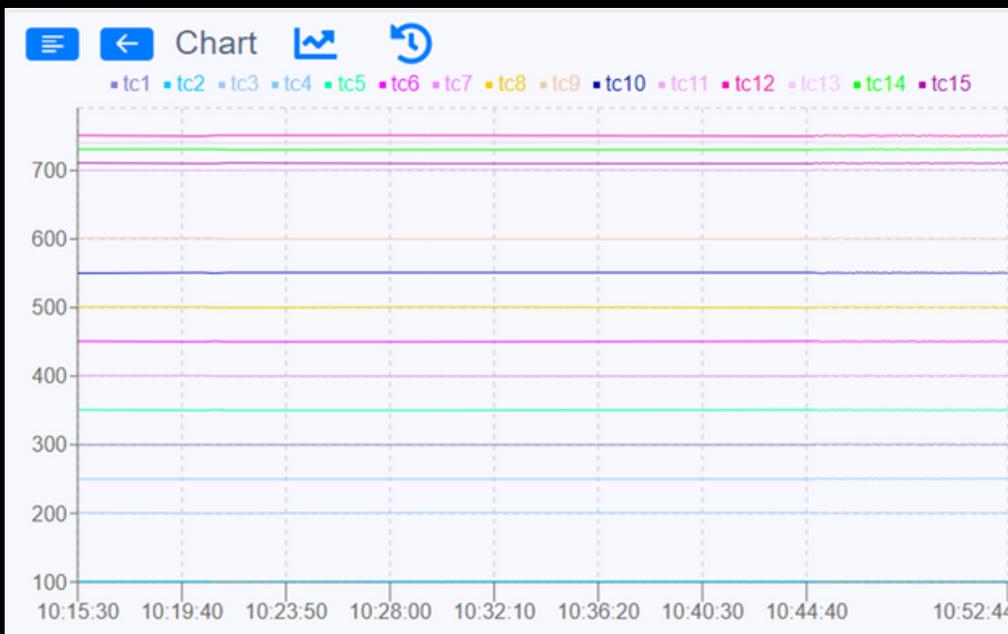
# HOME PAGE

When the PDR is first opened, we will see the thermocouple page. 15 thermocouple information is displayed. The Pages menu can be accessed via the marked button.



# CHART

With 15 thermocouples placed in the device to measure the ambient temperature, the measured values are displayed on the chart diagram. At the top of the chart are expressed thermocouple and its colors. The drawing of thermocouples is carried out on the diagram.

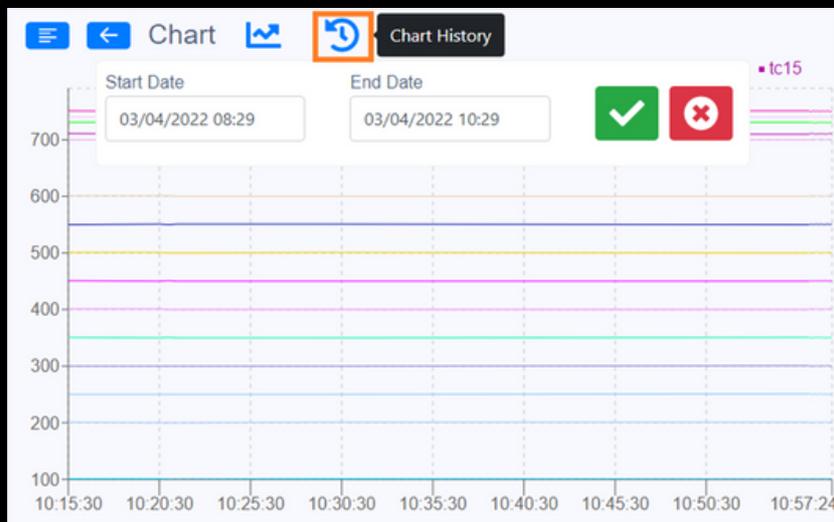


# CHART

Hovering over the chart shows the time-dependent thermocouple and its values more clearly.



If you want to display data in a certain date range, when the settings are made and approved from the date  button above, the data between the two dates are displayed on the diagram.



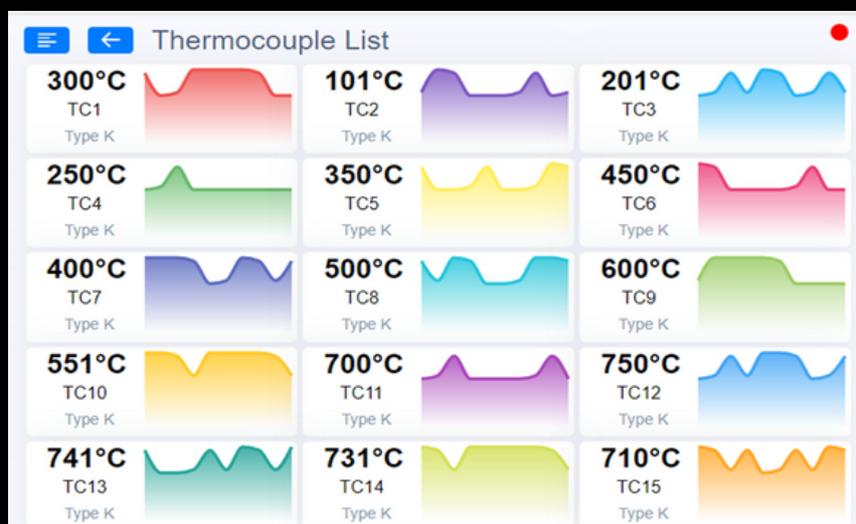
# DATA TABLE

The read data is displayed in a list on this page along with the date.

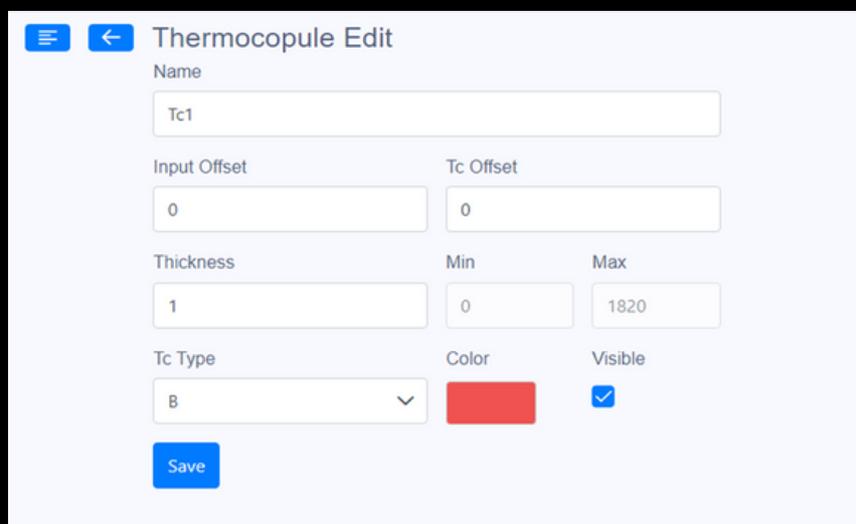
Data Table															
Date	TC1	TC2	TC3	TC4	TC5	TC6	TC7	TC8	TC9	TC10	TC11	TC12	TC13	TC14	TC15
04-03-22 11:10:00	300	100	200	250	350	450	401	501	600	550	700	750	740	731	710
04-03-22 11:09:30	301	101	201	250	350	450	400	500	601	551	700	750	741	730	711
04-03-22 11:09:00	301	101	201	251	350	451	401	500	600	551	701	750	741	730	710
04-03-22 11:08:28	300	100	201	251	351	450	401	501	601	551	700	751	741	731	711
04-03-22 11:08:00	301	100	200	251	350	450	400	501	601	551	700	751	740	730	711
04-03-22 11:07:30	301	100	200	250	350	451	400	500	600	551	701	751	741	730	710
04-03-22 11:07:00	300	100	201	250	350	450	401	501	600	550	700	750	740	730	711
04-03-22 11:06:30	301	100	201	251	350	451	400	501	601	551	701	751	741	731	711

# THERMOCOUPLES

The values and specifications of 15 thermocouples are displayed on this page. If a thermocouple property is desired to be changed, it can be updated from the update page by clicking on the relevant thermocouple.



On the following update page, some features of the thermocouple are included. From here, when modified and saved, the changes are displayed by returning to the thermocouple page.



**Thermocouple Edit**

Name:

Input Offset:  Tc Offset:

Thickness:  Min:  Max:

Tc Type:  Color:  Visible:

# THERMOCOUPLES

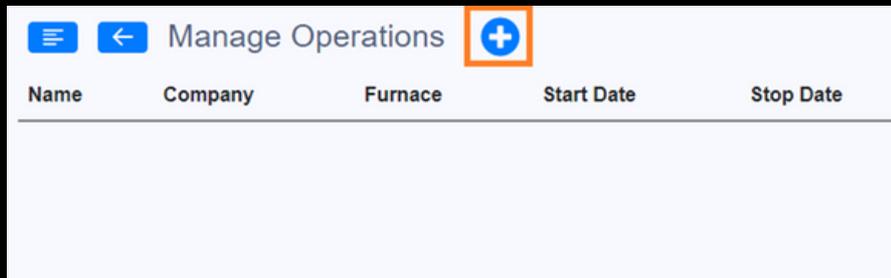
In the list shown below, the appropriate min. and max. temperature values are included.

When selecting the TC type on the update page, the values of the TC type you have selected will come by using this data. Each TC type has a min. and max. temperature values can be adjusted automatically according to the data in this list.

Sensor Tipi	Standart	Sıcaklık Aralığı	
		(°C)	(°F)
Type-B Termokupl (Pt%18Rh-Pt)	IEC584-1	60, 1820	140, 3308
Type-E Termokupl (Cr-Const)	IEC584-1	(-200), 840	(-328), 1544
Type-J Termokupl (Fe-Const)	IEC584-1	(-200), 1120	(-328), 1562
Type-K Termokupl (NiCr-Ni)	IEC584-1	(-200), 1360	(-328), 2480
Type-L Termokupl (Fe-Const)	D1N43710	(-200), 900	(-328), 1652
Type-N Termokupl (Nicrosil-Nisil)	IEC584-1	(-200), 1300	(-328), 2372
Type-R Termokupl (Pt%13Rh-Pt)	IEC584-1	(-40), 1760	104, 3200
Type-S Termokupl (Pt%10Rh-Pt)	IEC584-1	(-40), 1760	104, 3200
Type-T Termokupl (Cu-Const)	IEC584-1	(-200), 400	(-328), 752
Type-U Termokupl (Cu-Const)	DIN43710	(-200), 600	(-328), 1112

# OPERATIONS

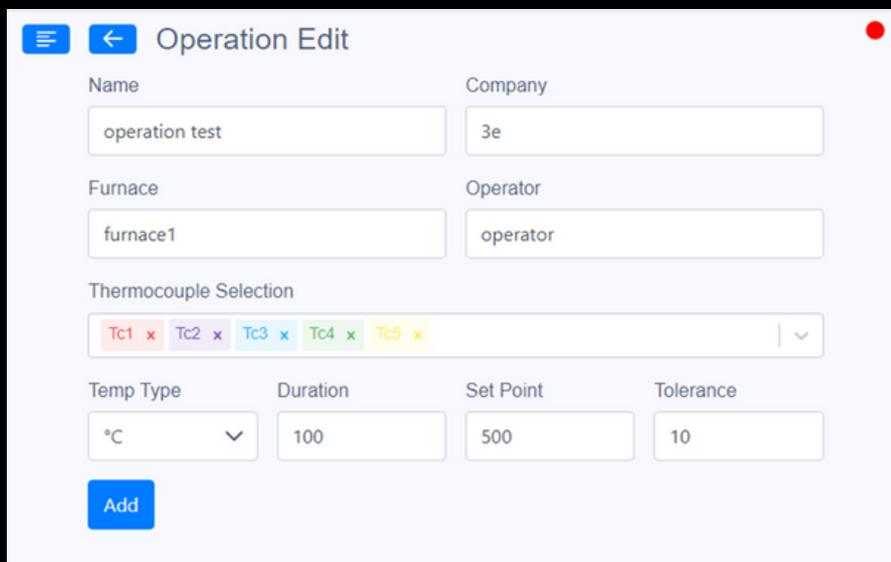
In order to keep the read data under a record name, an operation record must first be made. This page displays the operations for the record that has been started or finished. If there is none, adding is performed with the insert  button.



The screenshot shows a mobile application interface for 'Manage Operations'. At the top, there is a navigation bar with a menu icon, a back arrow, the title 'Manage Operations', and a plus icon in a blue square. Below the navigation bar is a table with the following columns: Name, Company, Furnace, Start Date, and Stop Date. The table is currently empty.

On the Add Operation page, the corresponding fields are populated.

- 15 thermocouples can be selected as desired or all.
- Temp Type is selected in °C.
- Duration is specified as the recording minute.
- The max point value is entered.
- Deviation tolerance is indicated.

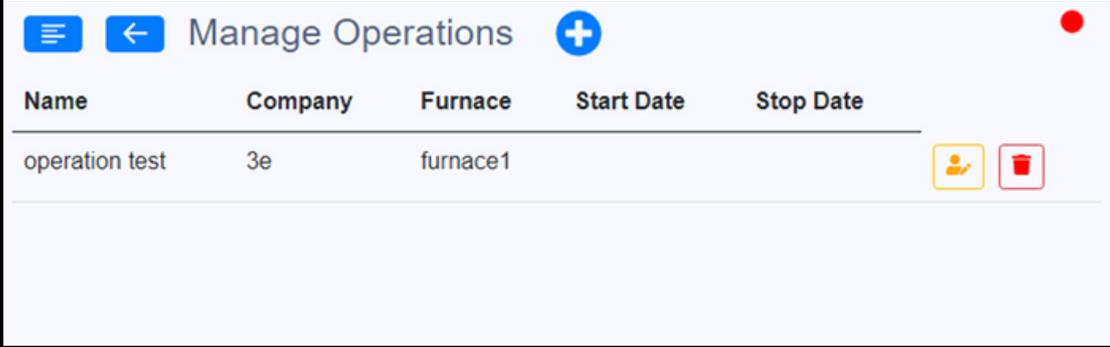


The screenshot shows the 'Operation Edit' page in the mobile application. It features several input fields and a dropdown menu. The fields are: Name (operation test), Company (3e), Furnace (furnace1), Operator (operator), Thermocouple Selection (Tc1 x, Tc2 x, Tc3 x, Tc4 x, Tc5 x), Temp Type (°C), Duration (100), Set Point (500), and Tolerance (10). There is an 'Add' button at the bottom left.

# OPERATIONS

The added operation record appears in the list. If the recording has never been started, the start date is not assigned. You need to start registering for dates.

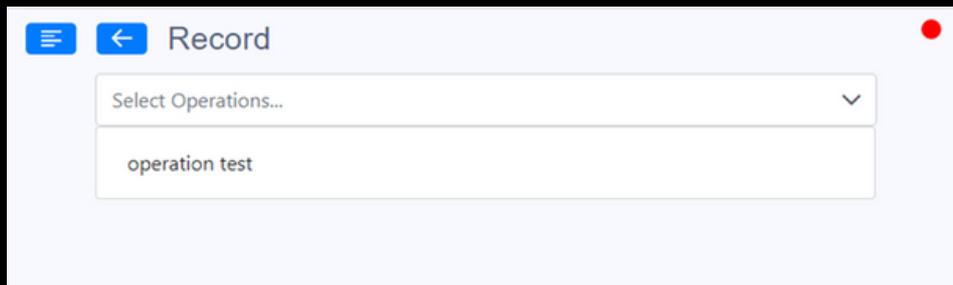
If you want to make corrections on it, update it with the edit  button next to it; If you want to delete it, the deletion process is performed with the delete  button.



Name	Company	Furnace	Start Date	Stop Date
operation test	3e	furnace1		

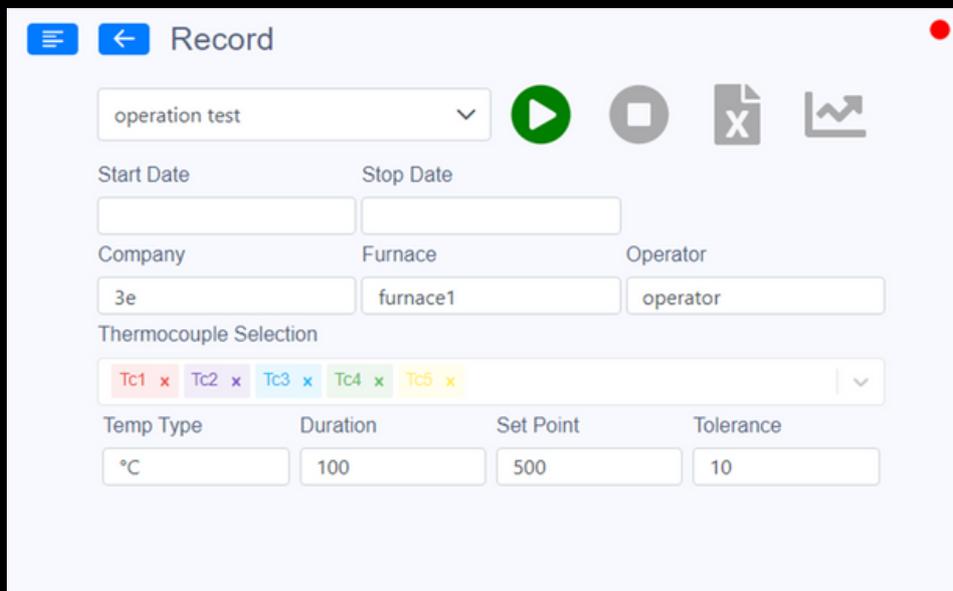
# RECORD

If there is no unsaved operation on the registration page, the selection tool is not displayed on that page. If an operation record is created, the selection tool appears. From here, a registered operation is selected and the thermocouple data recording is initiated.



The screenshot shows a mobile application interface titled "Record". At the top left, there is a menu icon and a back arrow. Below the title is a dropdown menu labeled "Select Operations..." with a downward arrow. The dropdown is open, showing a single option: "operation test".

The operation information selected here is displayed. Recording starts by pressing the Play  button.

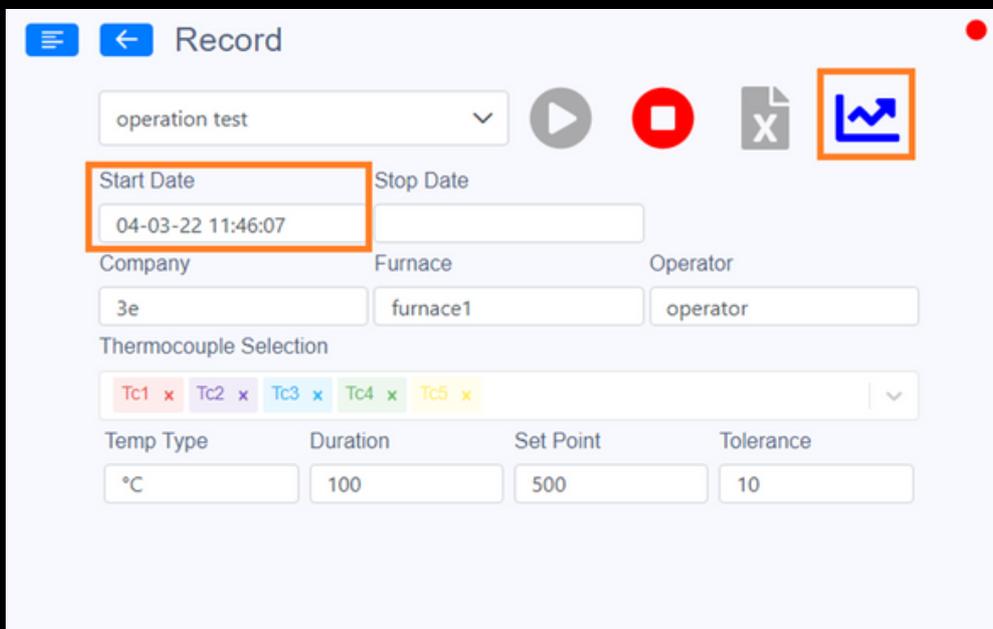


The screenshot shows the "Record" screen with the "operation test" selected in the dropdown. To the right of the dropdown are four icons: a green play button, a grey stop button, a grey document icon with an 'X', and a grey line graph icon. Below these are several input fields:

- Start Date:
- Stop Date:
- Company:
- Furnace:
- Operator:
- Thermocouple Selection:
- Temp Type:
- Duration:
- Set Point:
- Tolerance:

# RECORD

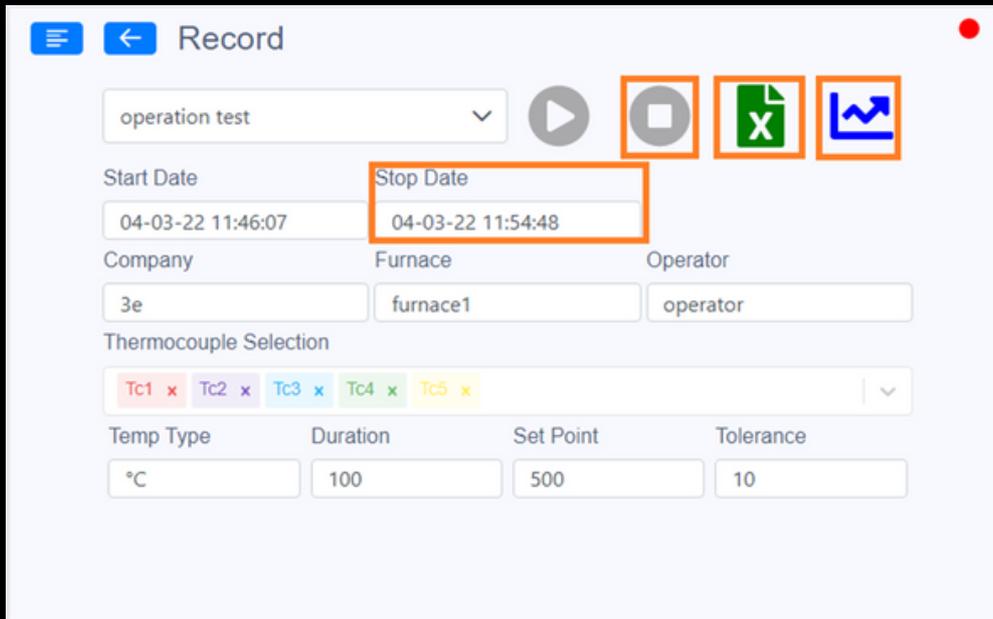
The date at the time of its launch is assigned to the start date. If you want to view the initiated record live, it can be viewed by going to the chart page with the trend  button. This imaging involves max 2 days.



The screenshot shows a mobile application interface for viewing a record. At the top, there is a navigation bar with a menu icon, a back arrow, and the title "Record". Below the navigation bar, there is a dropdown menu showing "operation test". To the right of the dropdown are four icons: a play button, a red stop button, a document with an 'X' icon, and a trend line icon (highlighted with an orange box). Below these icons are two input fields: "Start Date" (containing "04-03-22 11:46:07" and highlighted with an orange box) and "Stop Date". Underneath are three input fields for "Company" (containing "3e"), "Furnace" (containing "furnace1"), and "Operator" (containing "operator"). Below these is a "Thermocouple Selection" dropdown menu showing "Tc1 x", "Tc2 x", "Tc3 x", "Tc4 x", and "Tc5 x". At the bottom, there are four input fields for "Temp Type" (containing "°C"), "Duration" (containing "100"), "Set Point" (containing "500"), and "Tolerance" (containing "10").

# RECORD

If the registration is stopped with the stop button, the end date is also assigned. If a flash memory is inserted into the device, the data between the two dates can be transferred as an excel file. With the Trend  button, the diagram between the two dates is displayed.



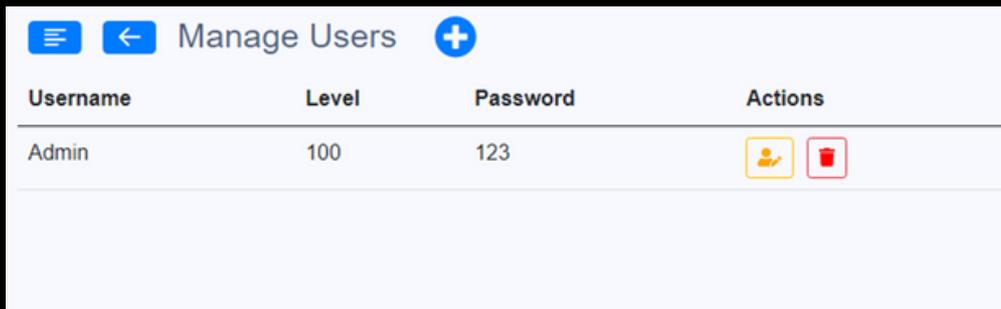
The screenshot shows the 'Record' interface with the following fields and values:

- operation test (dropdown)
- Start Date: 04-03-22 11:46:07
- Stop Date: 04-03-22 11:54:48 (highlighted with an orange box)
- Company: 3e
- Furnace: furnace1
- Operator: operator
- Thermocouple Selection: Tc1 x Tc2 x Tc3 x Tc4 x Tc5 x
- Temp Type: °C
- Duration: 100
- Set Point: 500
- Tolerance: 10

The red  icon in the upper right is the communication notification with modbus. If it cannot communicate, it is red, and if the communication is positive, it is  green.

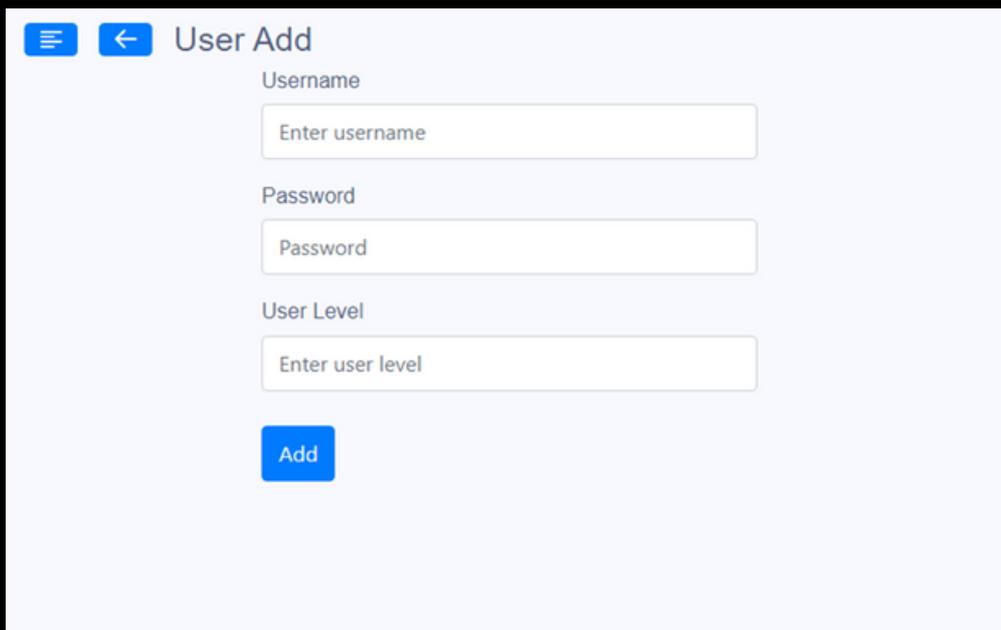
# USERS

The page on which the list of users is displayed. To add a new user, it is added with the  add button. If you want to change the existing registration information, you can delete the existing record with the update  button and the delete  button.



The screenshot shows the 'Manage Users' page. At the top, there is a navigation bar with a menu icon, a back arrow, the title 'Manage Users', and an add button (+). Below the navigation bar is a table with the following columns: Username, Level, Password, and Actions. The table contains one row for the 'Admin' user with a level of 100 and a password of 123. The Actions column for the Admin user contains two icons: a yellow person icon (update) and a red trash can icon (delete).

Username	Level	Password	Actions
Admin	100	123	 



The screenshot shows the 'User Add' page. At the top, there is a navigation bar with a menu icon, a back arrow, and the title 'User Add'. Below the navigation bar are three input fields: 'Username' with the placeholder text 'Enter username', 'Password' with the placeholder text 'Password', and 'User Level' with the placeholder text 'Enter user level'. At the bottom of the form is a blue 'Add' button.

Username  
Enter username

Password  
Password

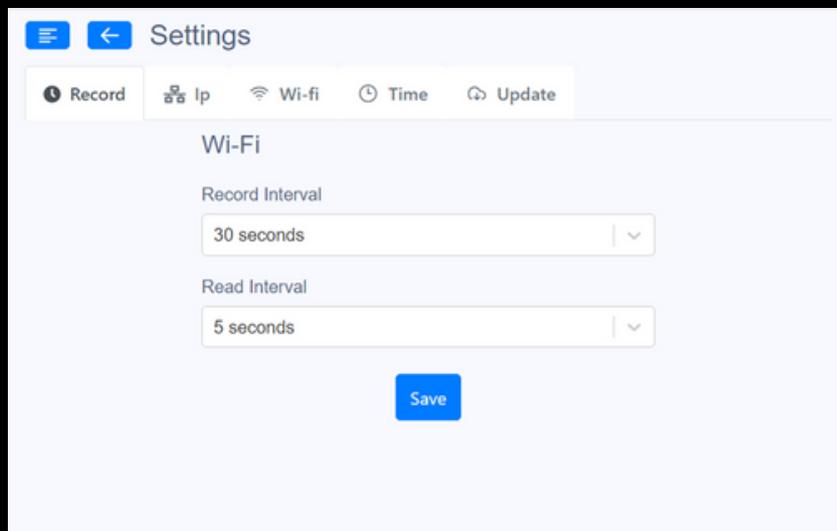
User Level  
Enter user level

Add

# SETTINGS

## Record

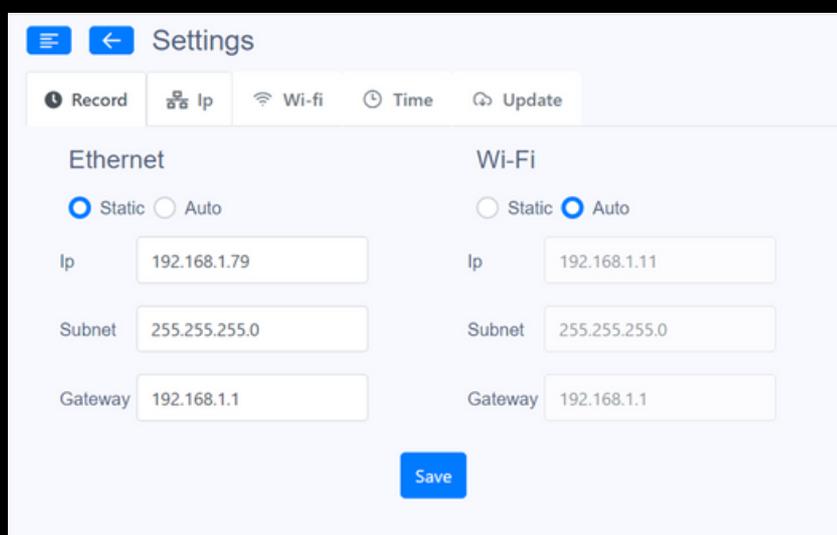
The recording and reading intervals of the device are set in the "Record" section, which is the first menu of the "Settings" page.



The screenshot shows the "Settings" page with the "Record" tab selected. The "Wi-Fi" section is visible, containing two dropdown menus: "Record Interval" set to "30 seconds" and "Read Interval" set to "5 seconds". A blue "Save" button is located at the bottom of the section.

## Ip Settings

This is the page where the device connection addresses are defined. The address information provided by the device from the ethernet and network is displayed or saved on this page. Adjustments can also be made according to preference with options such as Static or Auto.

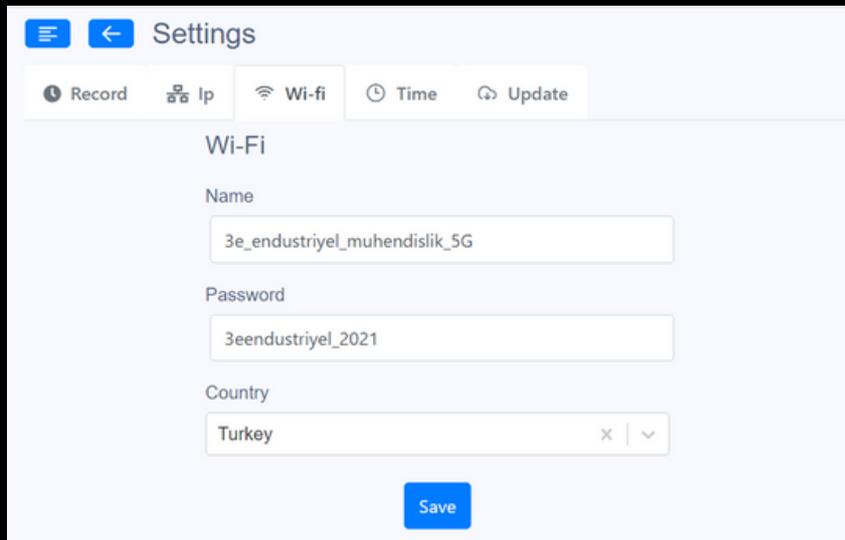


The screenshot shows the "Settings" page with the "Ip" tab selected. It displays two columns of settings: "Ethernet" and "Wi-Fi". Each column has radio buttons for "Static" and "Auto". The "Ethernet" section has "Static" selected, with fields for "Ip" (192.168.1.79), "Subnet" (255.255.255.0), and "Gateway" (192.168.1.1). The "Wi-Fi" section has "Auto" selected, with fields for "Ip" (192.168.1.11), "Subnet" (255.255.255.0), and "Gateway" (192.168.1.1). A blue "Save" button is at the bottom.

# SETTINGS

## Wi-Fi

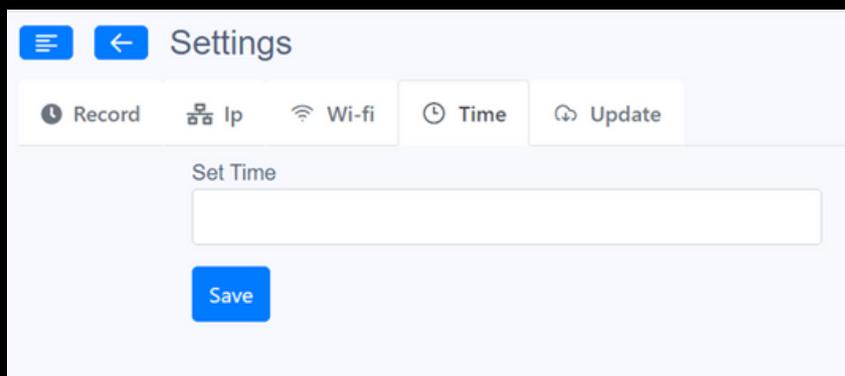
When the device will be connected to a network, the definitions of this network are made from this menu. Enter the Wi-fi information in the corresponding fields and save it



The screenshot shows the 'Settings' page with the 'Wi-fi' tab selected. The page has a navigation bar at the top with icons for 'Record', 'Ip', 'Wi-fi', 'Time', and 'Update'. Below the navigation bar, the 'Wi-Fi' section contains three input fields: 'Name' with the value '3e\_endustriyel\_muhendislik\_5G', 'Password' with the value '3eendustriyel\_2021', and 'Country' with a dropdown menu set to 'Turkey'. A blue 'Save' button is located at the bottom of the form.

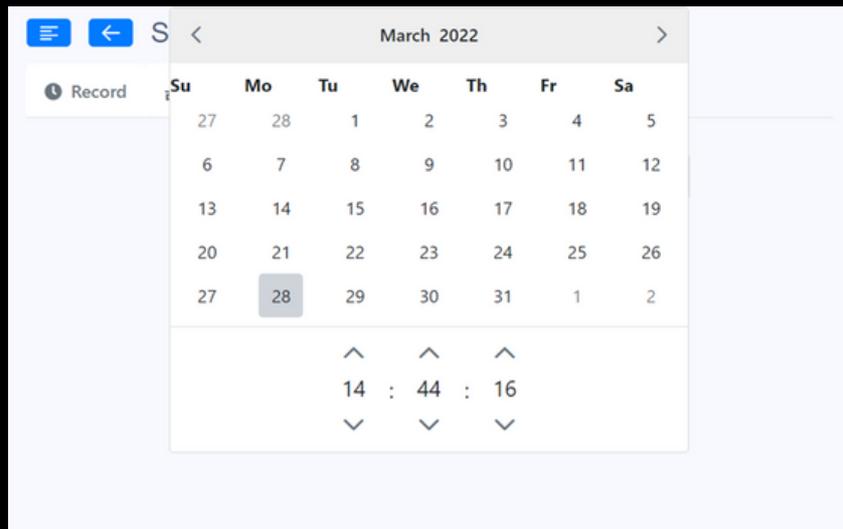
## Time

It is the page where the time setting of the device is made. In any case, if the time of the device does not go to the equivalent of the current one, correction can be made here.



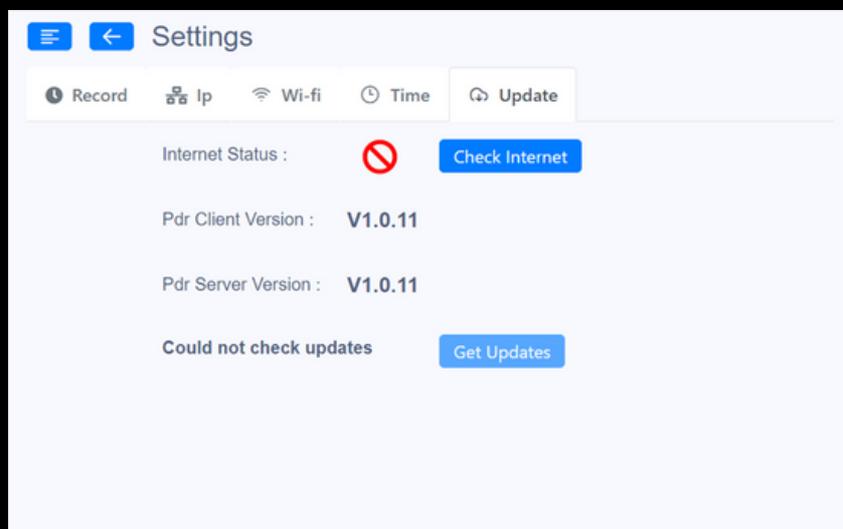
The screenshot shows the 'Settings' page with the 'Time' tab selected. The page has a navigation bar at the top with icons for 'Record', 'Ip', 'Wi-fi', 'Time', and 'Update'. Below the navigation bar, the 'Time' section contains a 'Set Time' label and a large empty input field. A blue 'Save' button is located at the bottom of the form.

# SETTINGS



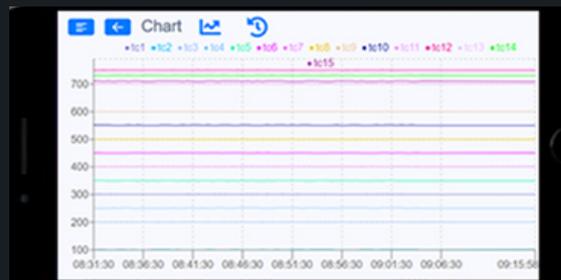
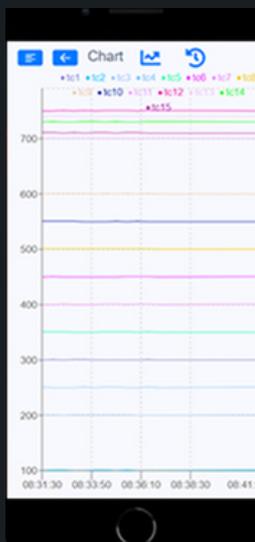
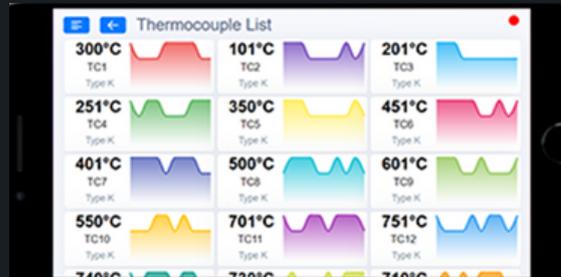
## Update

The new version can be checked if the update is coming. With "Check Internet", it is checked whether the device is connected to the internet, and with the new version control, if any, the new version update is made with "Get Updates".



# SETTINGS

All screens can be monitored by connecting with the device via the Webservice feature and any other device on the network (wire, tablet, etc.), without the need for any additional software or settings.



# EAGLE EYE PDR

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