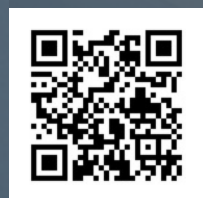




INDUSTRIAL
ENGINEERING

EAGLEYE PDR[®] MULTI-CHANNEL DATA RECORDER MANUAL OF USE / V0.1



Don't worry about it !

EAGLE EYE PDR

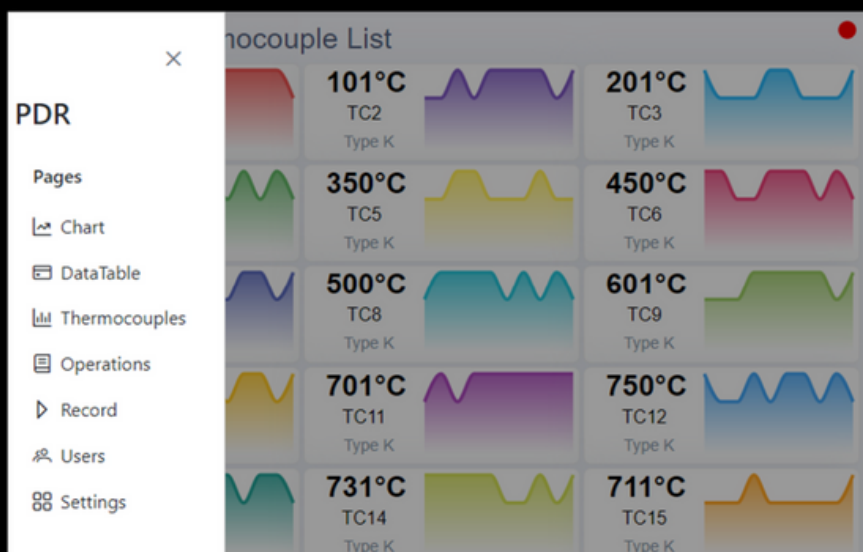
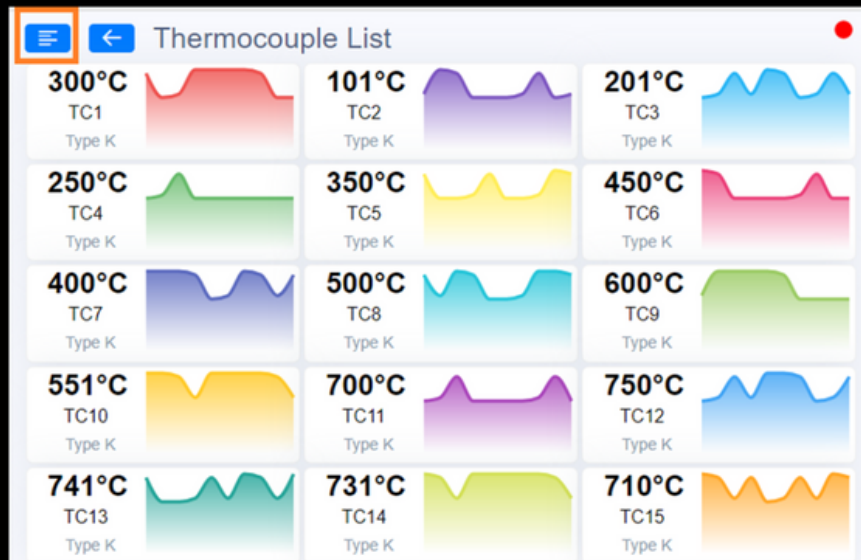
PDR is a multi-channel data acquisition device. The collected data can be reported with QRD software according to standards such as NADCP, AMS2750, CQI-9.

Eagleye PDR Pages :

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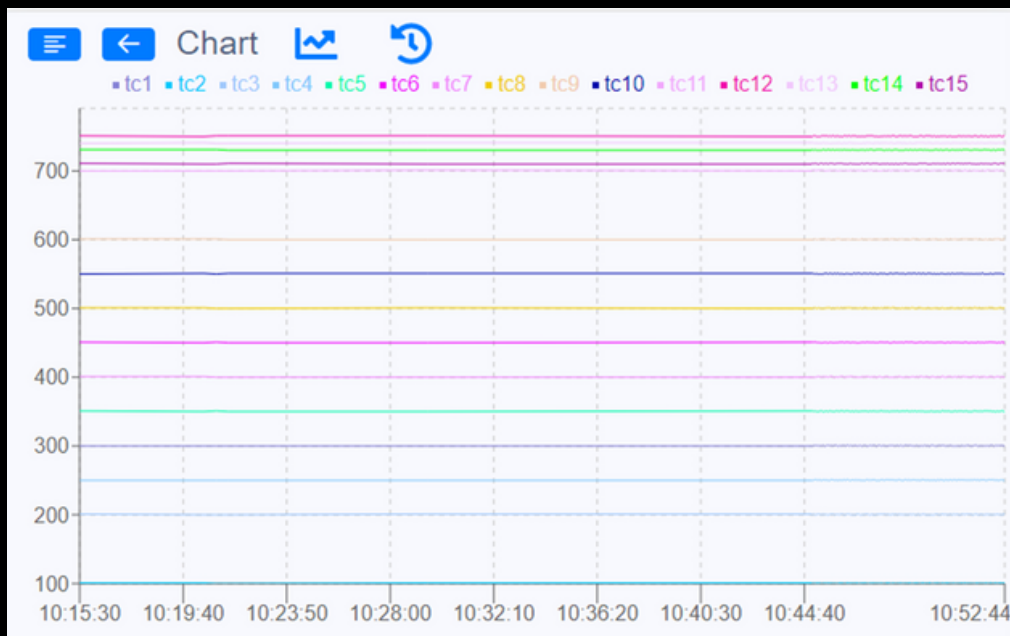
HOME PAGE

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.



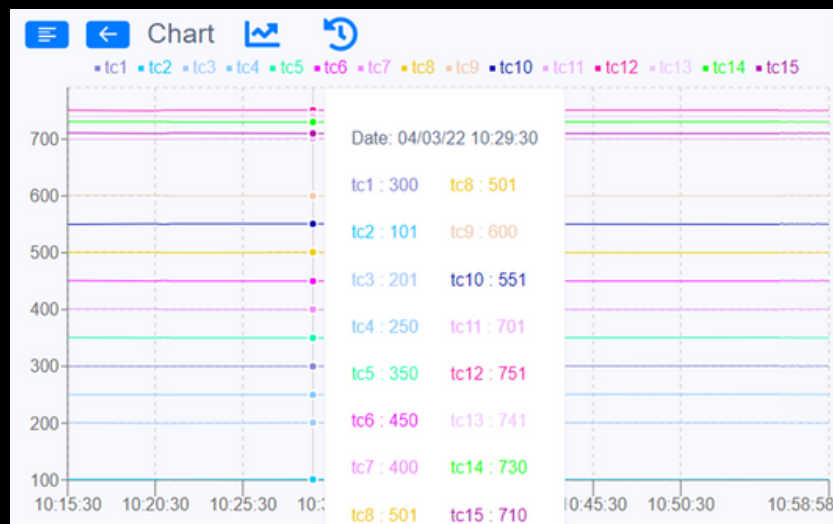
CHART


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.

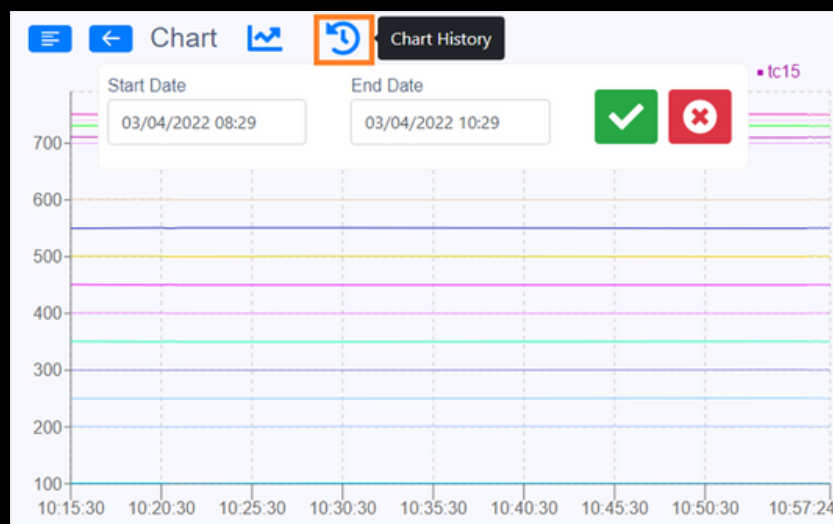


CHART

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.



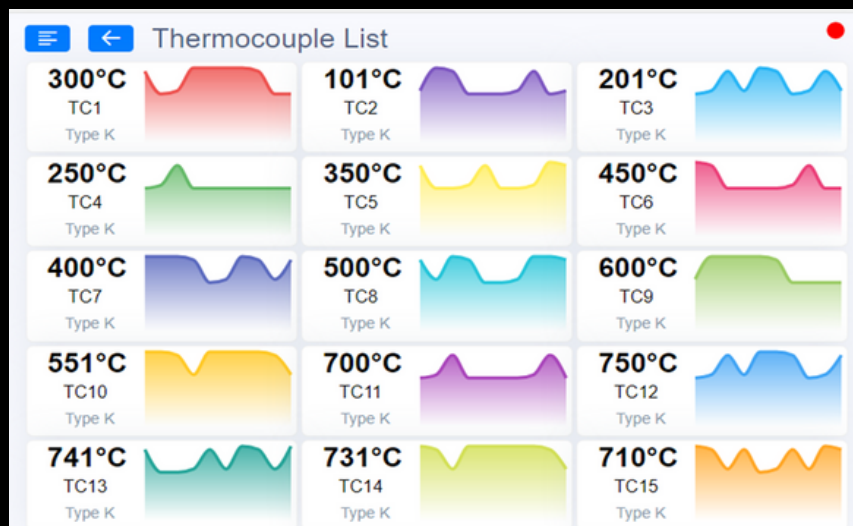
DATA TABLE

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

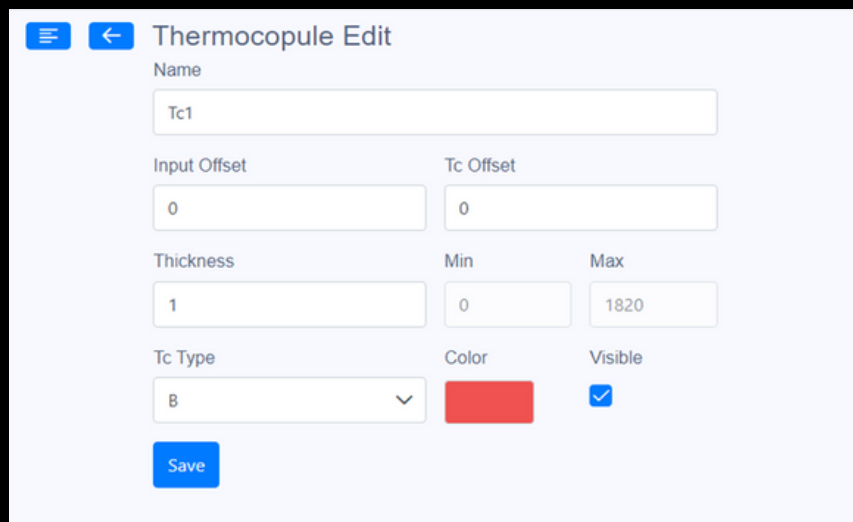
Data Table															
Date	TC1	TC2	TC3	TC4	TC5	TC6	TC7	TC8	TC9	TC10	TC11	TC12	TC13	TC14	TC15
04-03-22 11:10:00	300	100	200	250	350	450	401	501	600	550	700	750	740	731	710
04-03-22 11:09:30	301	101	201	250	350	450	400	500	601	551	700	750	741	730	711
04-03-22 11:09:00	301	101	201	251	350	451	401	500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

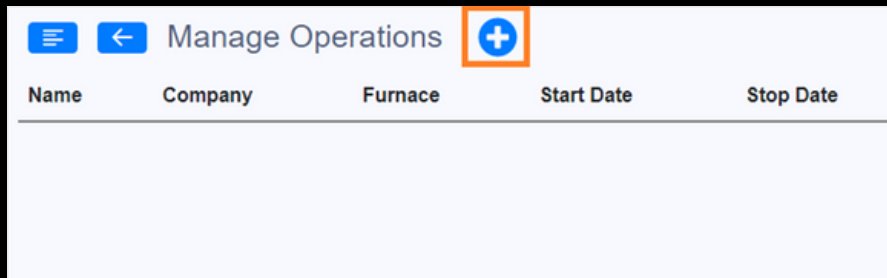
In the list shown below, the appropriate min. and max. temperature values are included.

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

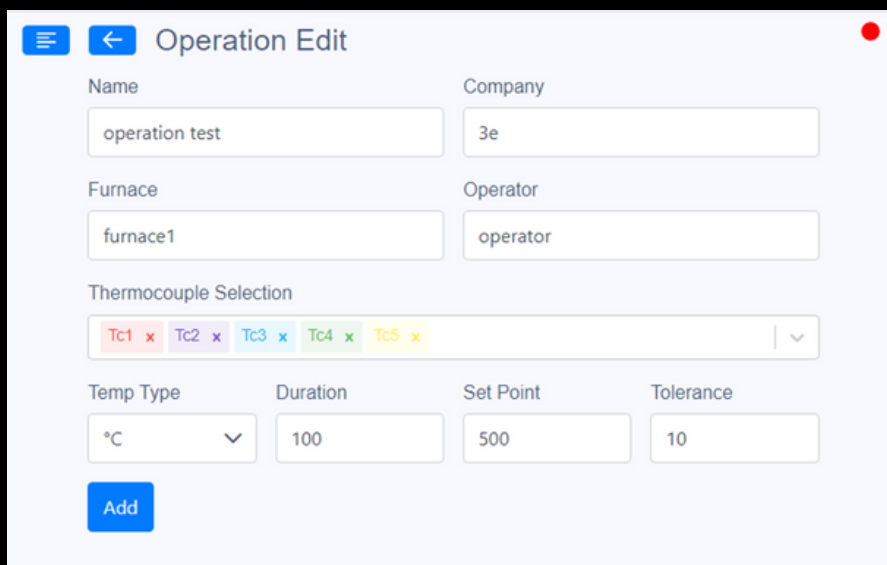
OPERATIONS

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.





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.



OPERATIONS

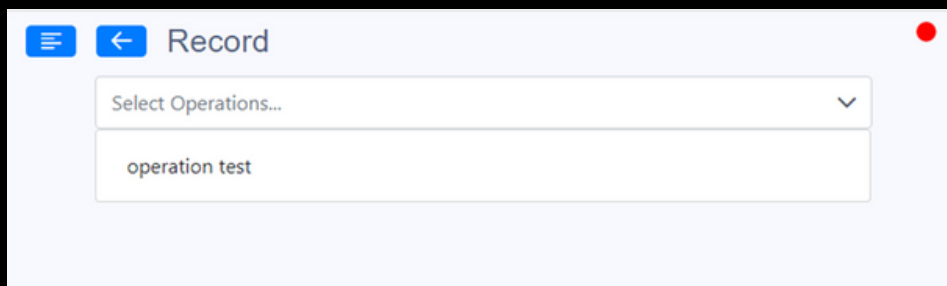
The added operation record appears in the list. If the recording has never been started, the start date is not assigned. You need to start registering for dates.

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.

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

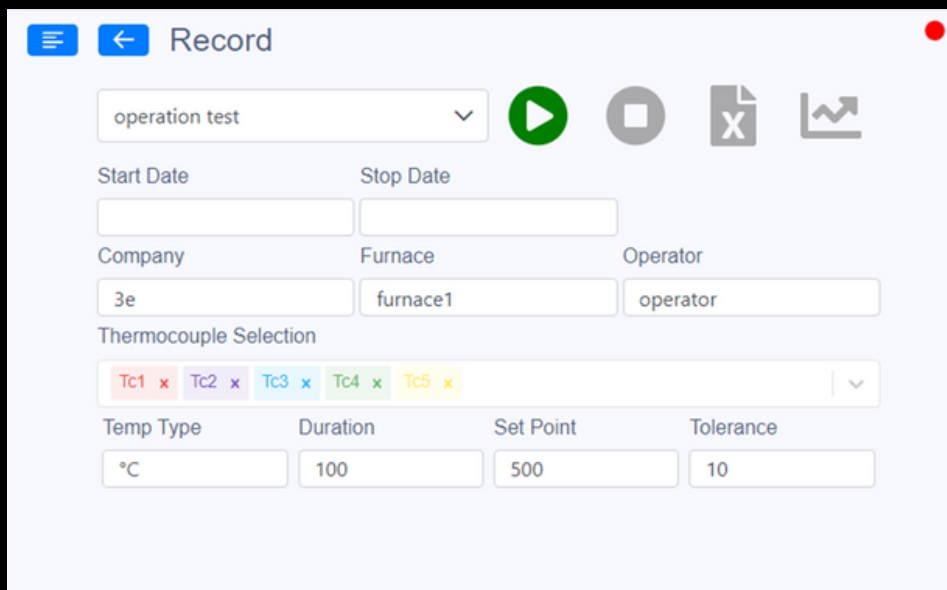
RECORD

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, there is a dropdown menu labeled "Select Operations...". The dropdown is open, showing a single option: "operation test".


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

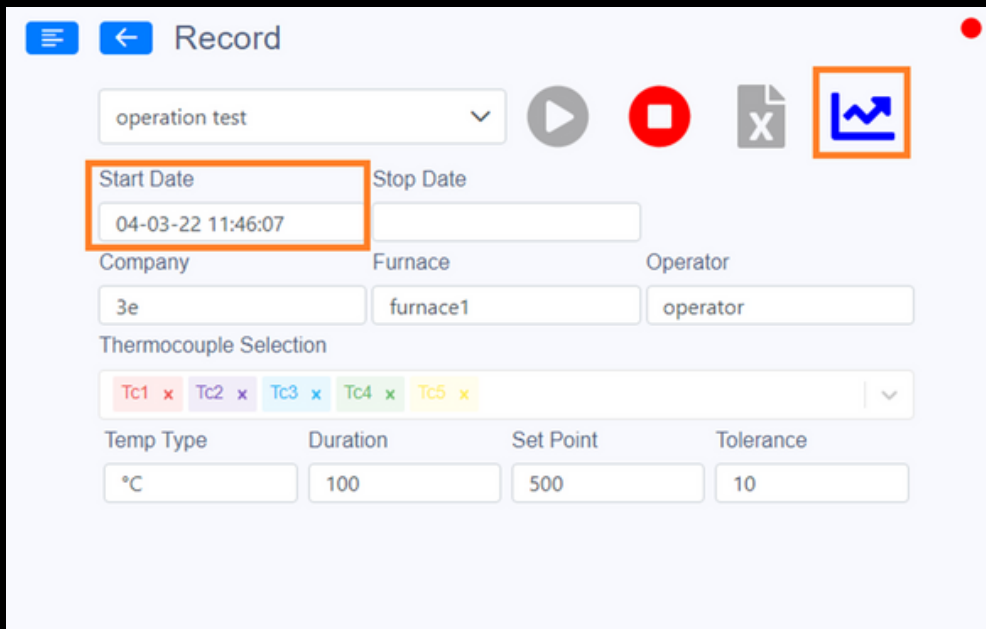


The screenshot shows the "Record" page with the "operation test" selected in the dropdown. Below the dropdown, there are several controls and input fields:

- A green play button (recording start) and a grey stop button (recording end).
- A document icon with an 'X' (delete) and a line graph icon (view data).
- Input fields for "Start Date" and "Stop Date".
- Input fields for "Company" (3e), "Furnace" (furnace1), and "Operator" (operator).
- A "Thermocouple Selection" section with a dropdown showing "Tc1 x", "Tc2 x", "Tc3 x", "Tc4 x", and "Tc5 x".
- Input fields for "Temp Type" (°C), "Duration" (100), "Set Point" (500), and "Tolerance" (10).

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.



Record

operation test

Start Date: 04-03-22 11:46:07

Stop Date:

Company: 3e

Furnace: furnace1

Operator: operator

Thermocouple Selection: Tc1 x Tc2 x Tc3 x Tc4 x Tc5 x


Temp Type: °C

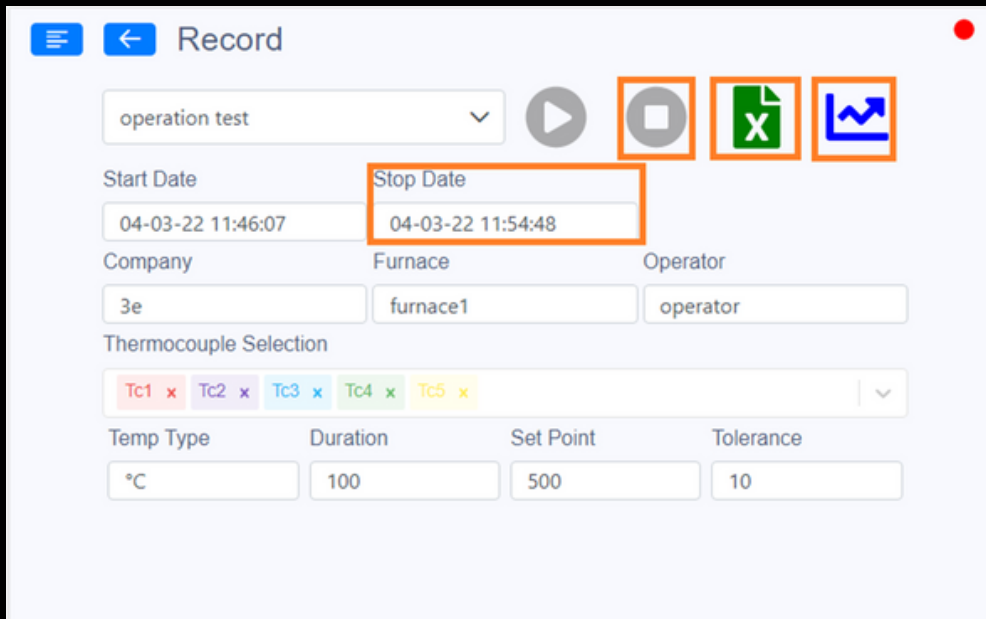
Duration: 100

Set Point: 500

Tolerance: 10

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 displays the 'Record' interface with the following elements:

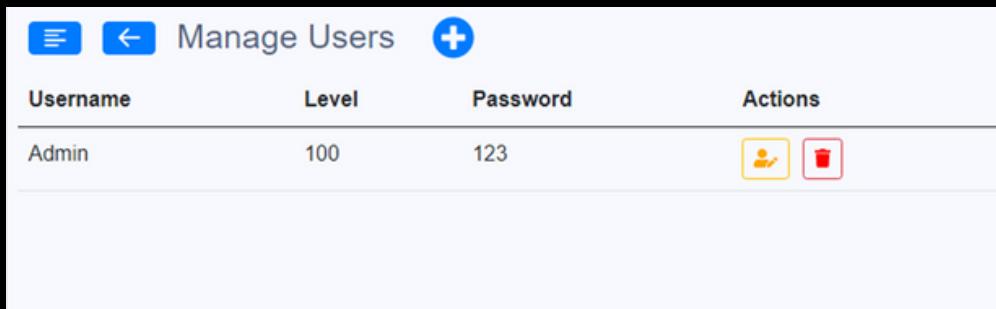
- Navigation:** A menu icon (three horizontal lines) and a back arrow (left-pointing chevron) are located at the top left.
- Operation Selection:** A dropdown menu is set to 'operation test'.
- Control Buttons:** A play button (triangle in a circle) is followed by three buttons: a stop button (square in a circle), an export button (green square with a white 'X'), and a trend button (blue square with a white line graph icon).
- Date Fields:** The 'Start Date' is '04-03-22 11:46:07'. The 'Stop Date' is '04-03-22 11:54:48', which is highlighted with an orange box.
- Identification Fields:** 'Company' is '3e', 'Furnace' is 'furnace1', and 'Operator' is 'operator'.
- Thermocouple Selection:** A row of five buttons labeled 'Tc1 x', 'Tc2 x', 'Tc3 x', 'Tc4 x', and 'Tc5 x' is shown, with a dropdown arrow to the right.
- Parameters:** A table-like section at the bottom contains:

Temp Type	Duration	Set Point	Tolerance
°C	100	500	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.

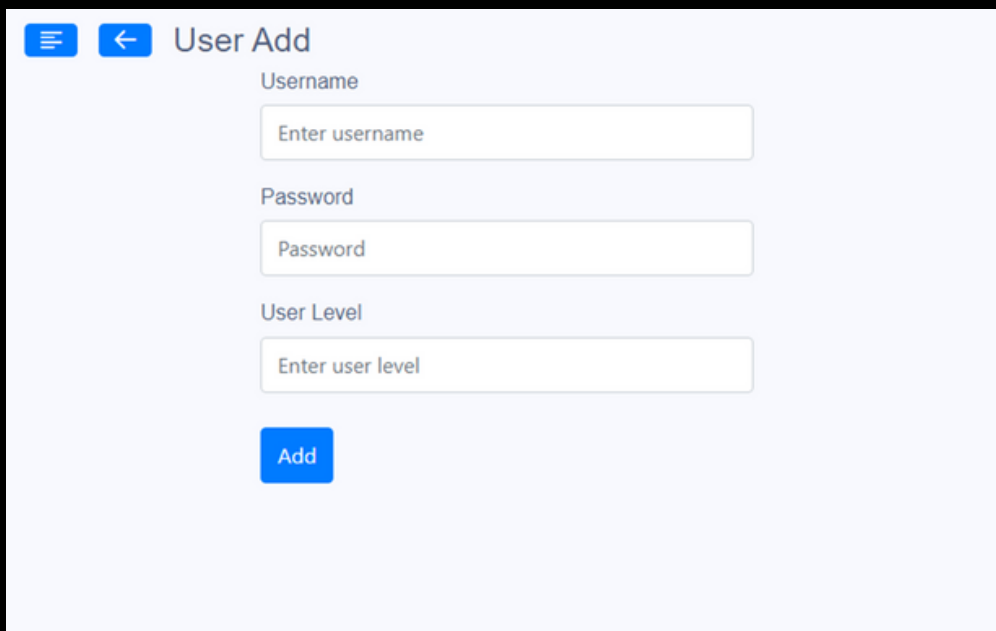
USERS

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

Username	Level	Password	Actions
Admin	100	123	 



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

Username
Enter username

Password
Password

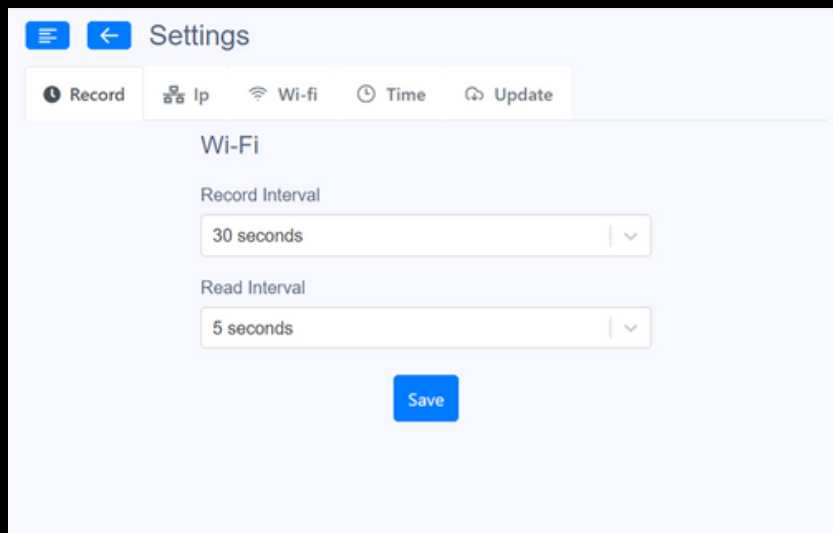
User Level
Enter user level

Add

SETTINGS

Record

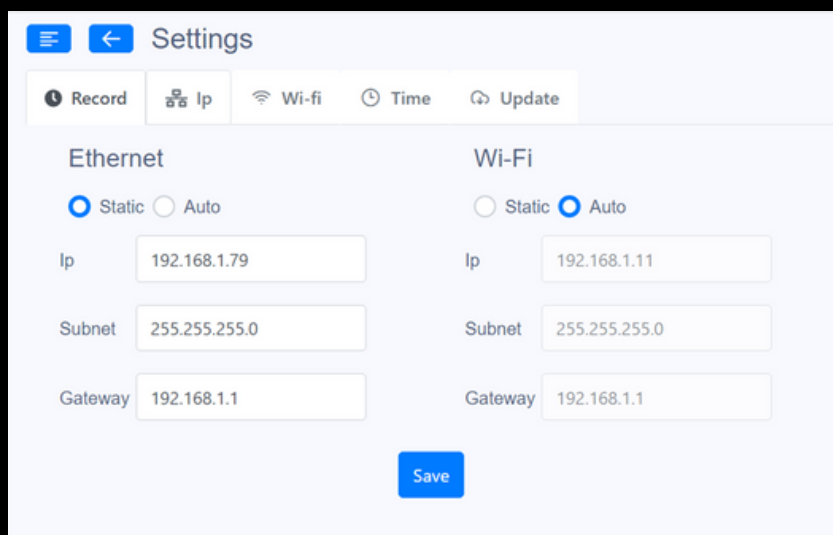
The recording and reading intervals of the device are set in the "Record" section, which is the first menu of the "Settings" page.



The screenshot shows the 'Settings' page with the 'Record' tab selected. The 'Wi-Fi' section is active, displaying 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 center.

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.

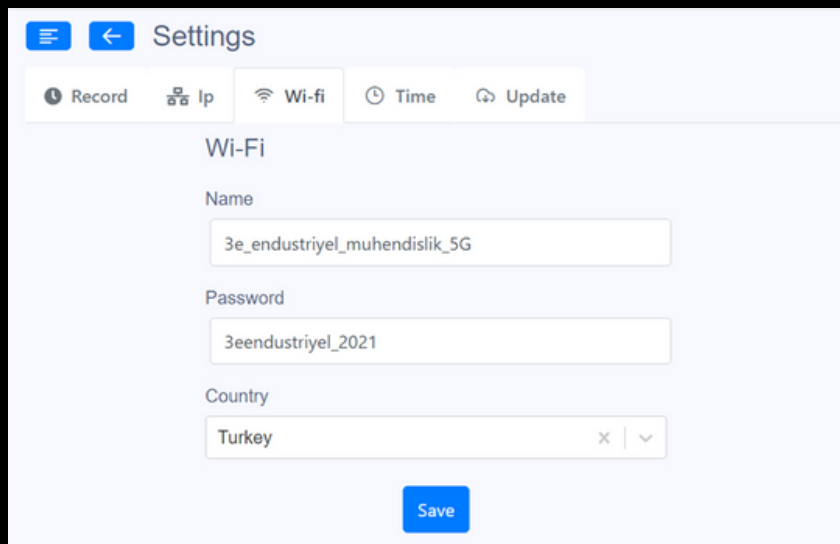


The screenshot shows the 'Settings' page with the 'Ip' tab selected. It displays two columns of settings: 'Ethernet' and 'Wi-Fi'. For 'Ethernet', the 'Static' radio button is selected, and the fields show Ip: 192.168.1.79, Subnet: 255.255.255.0, and Gateway: 192.168.1.1. For 'Wi-Fi', the 'Auto' radio button is selected, and the fields show Ip: 192.168.1.11, Subnet: 255.255.255.0, and Gateway: 192.168.1.1. A blue 'Save' button is at the bottom center.

SETTINGS

Wi-Fi

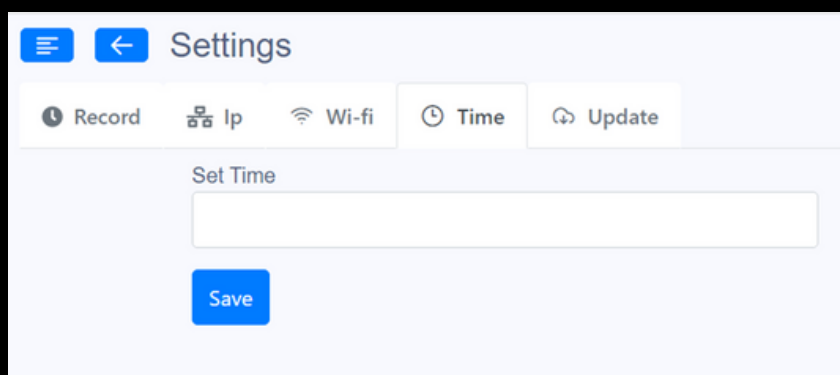
When the device will be connected to a network, the definitions of this network are made from this menu. Enter the Wi-fi information in the corresponding fields and save it



The screenshot shows the 'Settings' menu with the 'Wi-fi' tab selected. 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 showing 'Turkey'. A blue 'Save' button is located at the bottom right of the form.

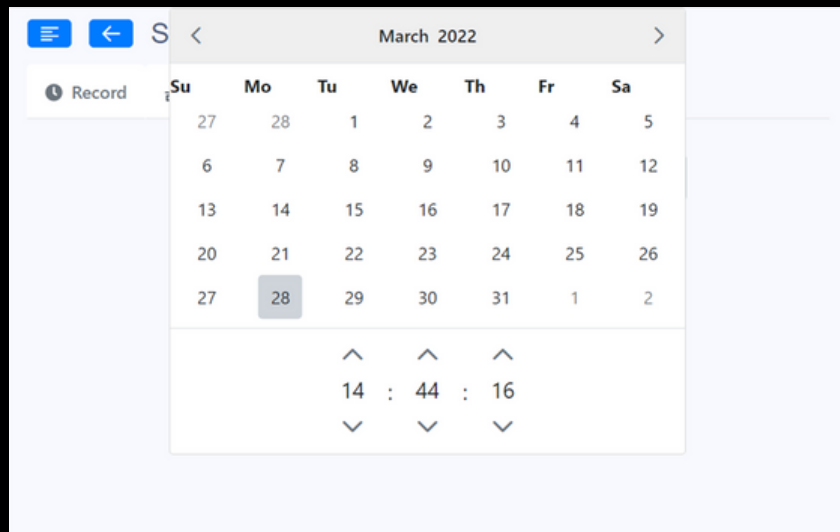
Time

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.



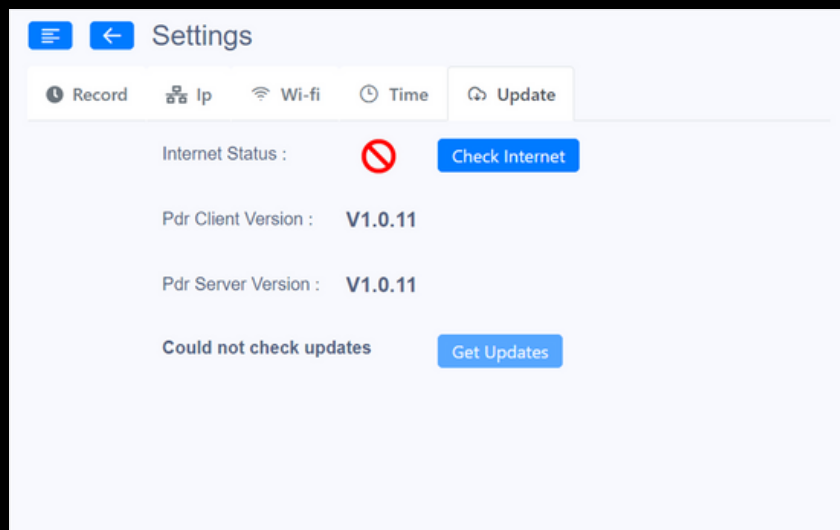
The screenshot shows the 'Settings' menu with the 'Time' tab selected. The 'Time' section contains a single input field labeled 'Set Time'. A blue 'Save' button is located below the input field.

SETTINGS



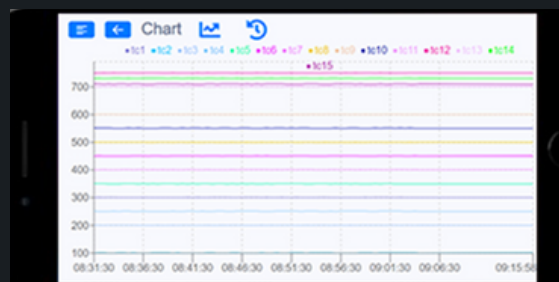
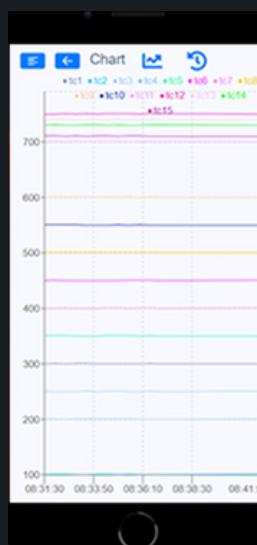
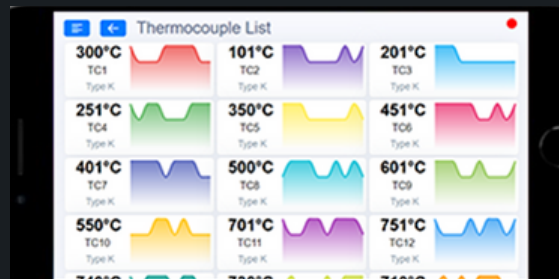
Update

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.



EAGLEYE PDR

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