ATTENTION

Read carefully these instructions before installing and using this device and keep them for future reference. Attention to installation and electrical wiring. ***Use this device only as described in this document and never use itself as a security device.*** *If the internet connection is lost, data logging pauses. The device must be disposed of in accordance with local standards for the collection of electrical and electronic equipment.*

CONTENTS

DESCRIPTION

IoTE is an Ethernet gateway which connects, via Internet, a network of up to 15 devices with the cloud IoT **Cortex** platform. Devices are connected through serial input to interface modules creating a Modbus RS485 network. Cortex platform can fully monitor and control many devices, send email and notifications to mobile, in case of an alarm. Connection to the local router is established via Ethernet cable. Gateway is powered by an external power supply +5Vdc. It has two red LED indications.

For further information please contact us via support@kiour.com mentioning your Gateway name displayed on its label .

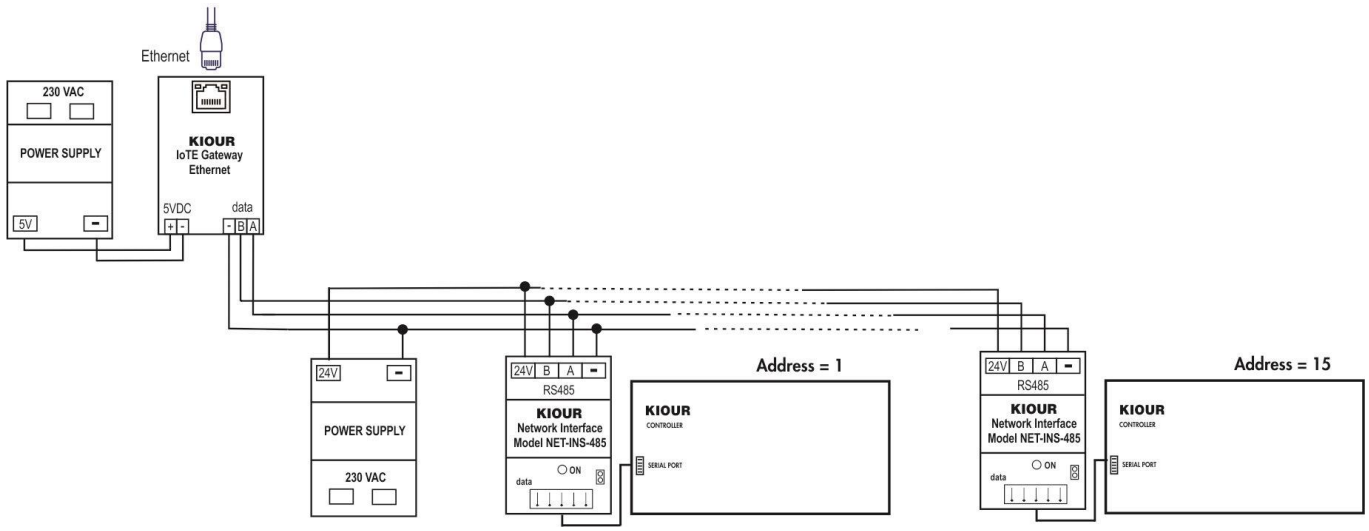
TECHINICAL SPECIFICATIONS

Power supply: +5Vdc (not included) / Minimum current operation: 1A
It is recommended using a power supply safety fuse: 1A (not included)
Two LED indications
Connections with plug-in terminal blocks / Ethernet port / It is recommended using a torque wrench with maximum torque 0.4Nm
Operating temperature: -15÷+55°C / Storage temperature: -20÷+80°C
Dimensions 20x59x78mm / Device is mounted on Ω rail / IP20 Protection

CONNECTIONS

ATTENTION*: according to safety standards, the device must be properly positioned and protected from any contact with electrical parts. The device must be fastened in such a way that it cannot be removed without the use of tools. Disconnect the main safety switch of the installation before proceeding to any maintenance. Disconnect the power supply of the device before proceeding to any maintenance. Do not place the device near heat sources, equipment containing strong magnets, in areas affected by direct sunlight or rain. Prevent electrostatic discharges and sharp objects from been inserted to the device. Separate signal cables from power supply cables to prevent electromagnetic disorders. Signal cables must never be in the same pipe with the power supply cables.*

ATTENTION: network's power supply must be only one and common for the whole network – do not add extra power supplies, creating extra 0V lines which causes data corruption. Network power supply is 24VDC 0.6A. Connections between devices must be in parallel and not like a star, as show in the diagram below. Network must always start from IoTE Ethernet gateway and continue with the devices with the first one having the address Add = 1 – do not place the gateway in the middle or at the end of the network. Each device must have a unique address. Always use an Ethernet UTP CAT5 cable with insulation for creating the network. Use 2 twisted pairs from the Ethernet UTP cable: on pair is for the power supply 24VDC and the other is for the data B,A. Each thermostat is connected to the network via an interface NET-INS-485. The thermostat is connected to the interface via a 5 pole cable with 0.5m length.

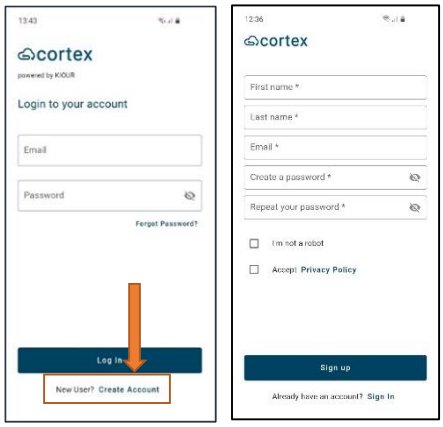


LED INDICATIONS, SIGNAL AND SYMBOLS DESCRIPTION ON CORTEX PLATFORM

LED indications on gateway	
upper LED Ethernet	blinks when data are transmitted on internet
down LED Modbus	blinks when data are transmitted on Modbus
Reset Ethernet gateway	both LED remain switched on for several seconds and then they switch off

Symbols on Cortex platform	
	help
	information
	restart gateway
	edit gateway settings
	more details
	refresh table
	open technical datasheet
	export data
	search
	maximize screen
	minimize screen

CREATE AN ACCOUNT TO THE CORTEX PLATFORM



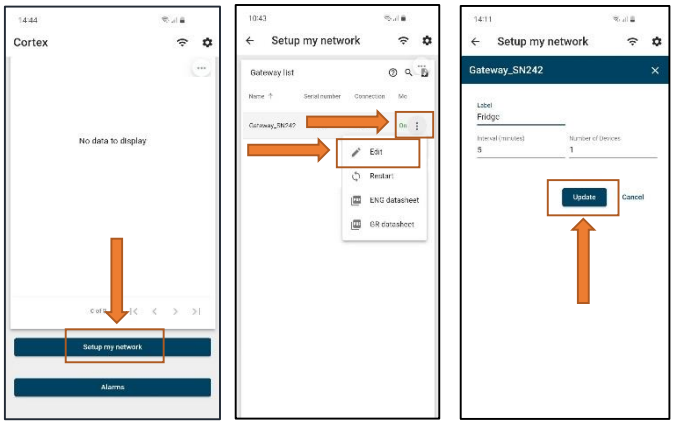
1. From your smartphone and from the app store, download the application **Cortex KIOUR** and give access to anything the application needs. The connection between the mobile and the gateway is established via Bluetooth BLE, so enable Bluetooth to your mobile and give access to Bluetooth and the location of your device.
2. Create an account by clicking on *Create Account*. The email you are about to register will receive future notifications in case of alarms and cannot change later. Only the password can change later.
3. Once an account is created, a confirmation email is send to the registered mail. Press the link from the mobile where the application is located, in order to activate your Cortex account and you will redirect to the main dashboard of the platform.
4. Once you are in, no device is listed yet to the main dashboard and it is displayed **No data to display**.

CONNECT IoTE GATEWAY TO CORTEX

The Ethernet gateway is transferred by KIOUR to your account after communication.

Multiple gateways can connect to an account, either Ethernet or Wi-Fi and check them all from the gateway's list.

ADJUST DATA LOGGING INTERVAL AND NUMBER OF DEVICES ON NETWORK

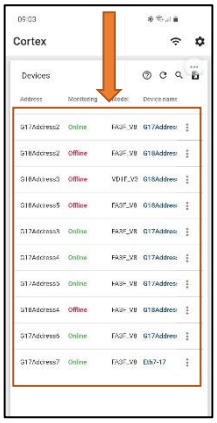


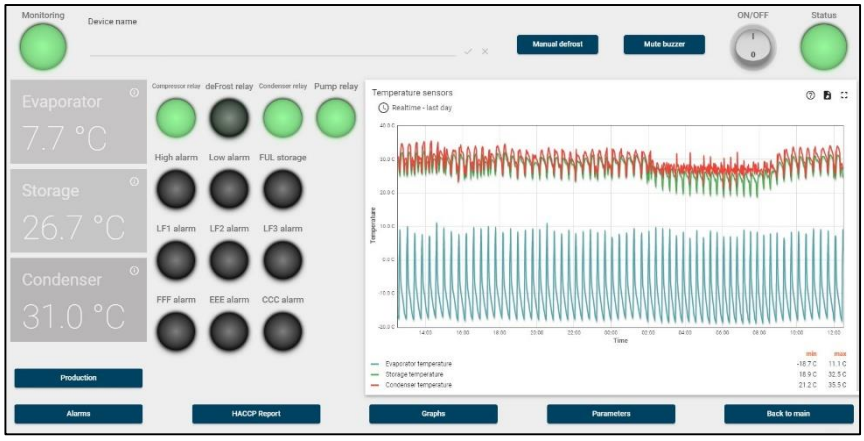
1. To the bottom of the main dashboard page, click on *Setup my network*.
2. Find *Gateway list* and press next to the gateway you want to adjust the data logging interval and then click on *Edit*. A new window opens, where you can adjust the interval in minutes, how many devices are connected to network and register a name to the gateway which is send in the notifications.
3. When you are done, click *Update*.

ADJUSTING THE DEVICES CONNECTED TO GATEWAY AND ADDRESSING

Search for the technical datasheet of the relevant device for more information regarding the programming of its parameters.
The device is able to communicate with Ethernet gateway if parameter **bAU = 3** and parameter **Add** is set to a unique address.
***Attention**: two devices with the same address must not exist in network! Check multiple times the adjustment of parameter Add to all devices.*

DEVICES UNDER MONITORING



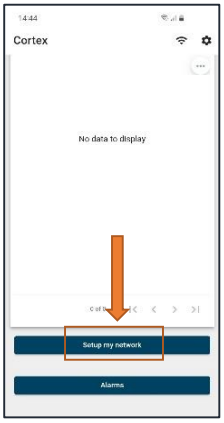


Screenshot from PC

Having connected successfully all devices on network, go to the main dashboard. Power up the network. After few seconds, automatically all devices will appear. If not, toggle the power supply of the network and wait to automatically appear. The number of devices connected to network must be adjusted from the setting menu, so follow the link Adjust data logging interval and number of devices on network.

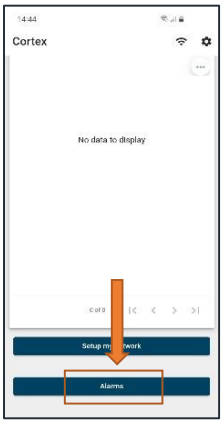
Click on a device and enter on its dashboard where we can control it and check data logging. Temperatures are automatically renewed every few seconds while data logging is adjusting via gateway settings, so follow the link Adjust data logging interval and number of devices on network.

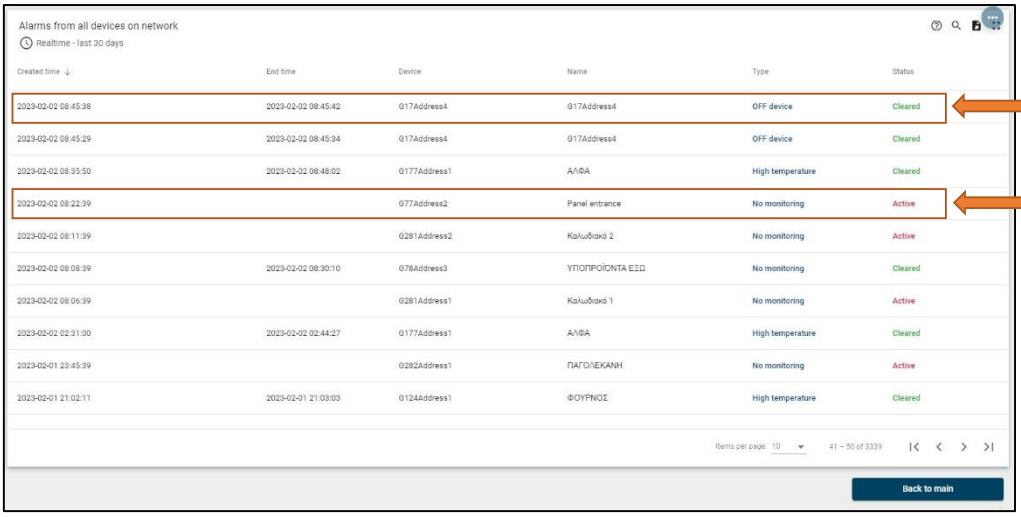
GATEWAY SIGNAL



1. To the bottom of the main dashboard page, click on *Setup my network*.
2. Find *Gateway list* and the Signal column, which indicates the signal strength coming from gateway. Signal has the following 2 indications: **Connected, Disconnected**.

NOTIFICATIONS IN CASE OF ALARM



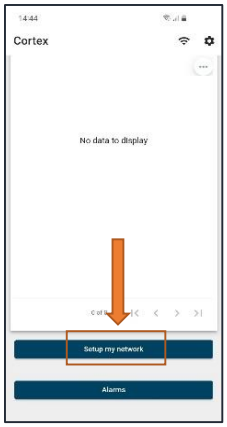


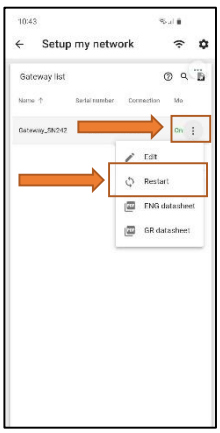
Screenshot from PC

Notifications for the device alarms and lost connection to the platform are sent automatically to the email you have registered during sign up, as well as to the mobile application. No notifications are sent once the device alarms are restored. Only lost connection alarm sends a notification/email, once the connection to the platform is restored again.

To check the notifications, you received, to the bottom of the main dashboard page, click on *Alarms*. A table with all the alarms of the account appears. Each line is an alarm and the following are displayed: created date/time of the alarm, end data/time of the alarm, device address, device name, type of the alarm and its status, if it is *Active* or *Cleared*.

REMOTE RESTART OF GATEWAY





If you want to restart your gateway, follow these steps:

1. To the bottom of the main dashboard page, click on *Setup my network*.
2. Find *Gateway list* and press ⋮ next to the gateway you want to restart. Click once ( ) *Restart* and wait for 10 seconds. Check the *Status* column to display *Online*, which indicates that the gateway has restarted successfully.

Made in Greece.

The device is under two year's guarantee. The guarantee is valid only if the manual instructions have been applied. The control and service of the device must be done by an authorized technician. The guarantee covers only the replacement or the service of the device. KIOUR PC implements a Quality Management System according to EN ISO 9001:2015 Standard with registration number 01013192. KIOUR preserves the right to adjust its products without further notice.