

# User manual

## iRidium KNX Server





## Table of contents.

1. Application	3
2. Contents	3
3. Technical parameters	3
4. Controls and Display	4
5. Safety measures	5
6. Controller mounting	6
7. Operating instructions	7
8. Transportation and storage	7
9. Warranty	8
10. Restore default settings	9
11. Troubleshooting	9

## General.

This Operating Manual (OM) establishes the rules of operation for the Communication Controller (CC) YAVR.421459.001.

OM contains information about technical characteristics, design and devices communication controller and is intended for professionals engaged in the installation and maintenance of the product. OM contains requirements that are necessary when working with the controller.

To configure the communication controller see Programming instructions.

The manufacturer reserves the right to make changes in product design without notice.

## 1. Application.

- 1.1 Communication controller is designed for continuous monitoring and management of network devices KNX -bus via the iRidium Server software.
- 1.2 The controller is mounted in the cabinet on DIN-rail and connected to the KNX-bus, 220V power and the Ethernet.

## 2. Contents.

Communication controller package includes:

Name	Quantity
Communication Controller	1 unit
User Manual	1 unit
Package	1 unit

## 3. Technical parameters.

Name	Standard
DC supply voltage	24V (From 12V to 30V)
Rated electric power	2.5W
Operating temperature	From +1 to +40 C
Dimensions	72mm x 94mm x 61mm
Weight	0.25 kg
Operation mode	24x7x365

## 4. Controls and Display.

Unit appearance is shown in Figure 4.1:

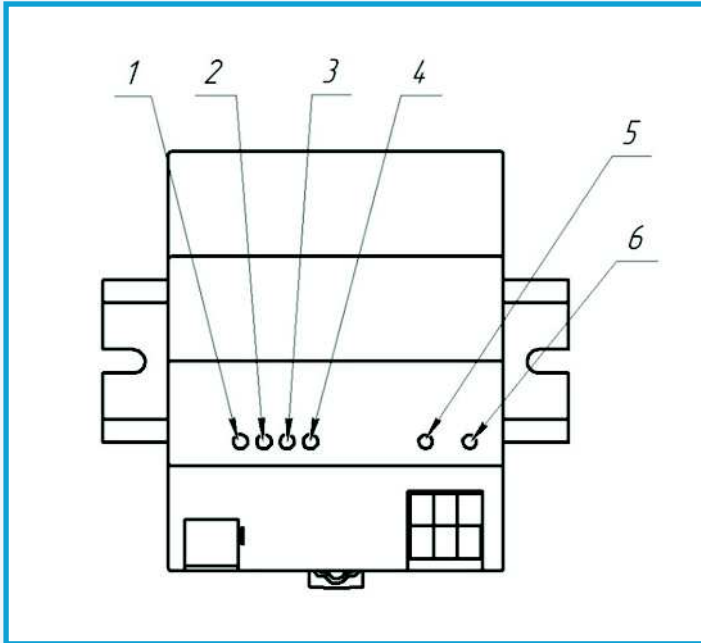


Figure 4.1 - Appearance

- |    |           |   |
|----|-----------|---|
| 1. | LED Power | Power indicator                               |
| 2. | LED OUT   | Data transmission to the KNX bus              |
| 3. | LED IN    | Data receiving from the KNX bus               |
| 4. | LED KNX   | Indicator of connections and power to KNX bus |
| 5. | FNC       | Function button                               |
| 6. | RST       | Reset button                                  |

I/O connectors wired to the bottom side, Figure 4.2.

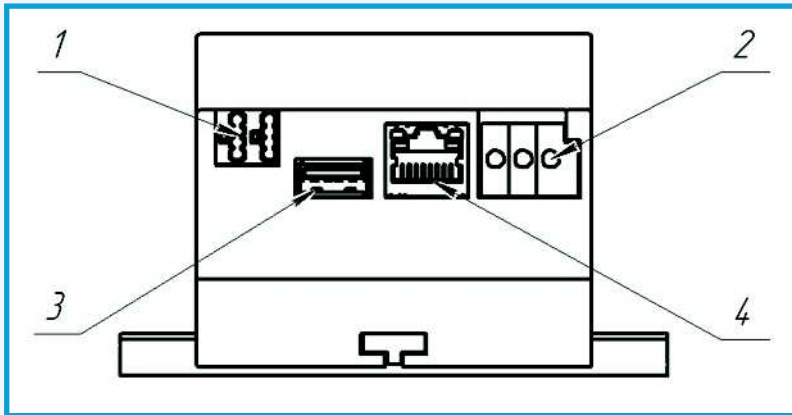


Figure 4.2 - Bottom view

1. KNX bus
2. Power supply terminal
3. USB-A connector
4. Ethernet connector with LED LAN indicator

### 5. Safety measures.

- 5.1 Controller installation must be performed according to regulations of electrical equipment installation and this instruction manual.
- 5.2 The installation and maintenance of the controller is only allowed to staff that is familiar with design of the equipment and safety regulations.
- 5.3 During installation, it is necessary to ensure that fastening of the housing and electric cables is secure.
- 5.4 To ensure operation safety do not perform maintenance (connecting, troubleshooting, etc.) with power on the KNX bus and/or power bus controller.
- 5.5 When assembling and disassembling the controller, employee in charge must follow occupational hygiene guidelines.

## 6. Controller mounting

- 6.1 Before installing the controller it is recommended to check network settings (default IP and MAC addresses are marked on the label on the controller case). If addresses are not known, you have to go through the initial setup of the controller and the Ethernet interface (see section 10 - Restore default settings).
- 6.2 The controller must be installed inside an electrical cabinet, equipped with DIN-rail 35mm x 7.5mm EN 50022. Operating position - vertical, see Figure 6.1.

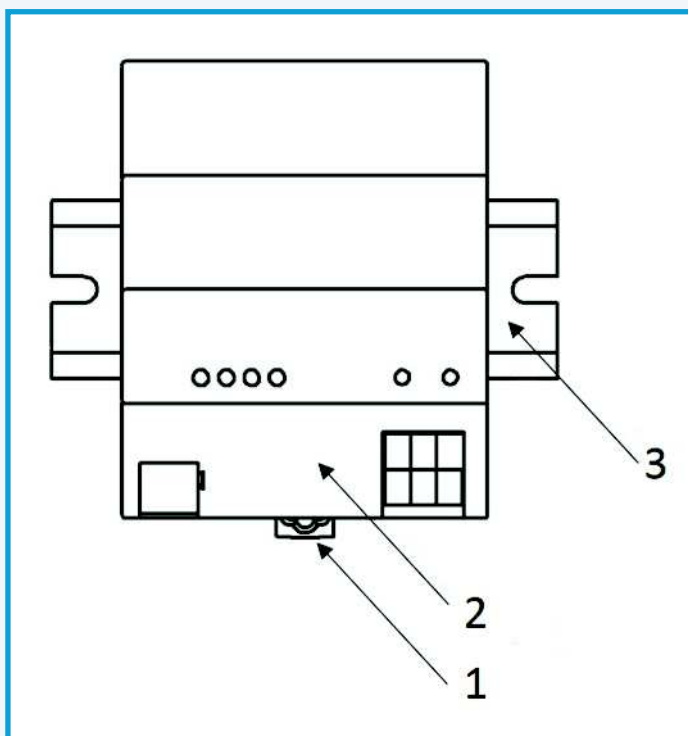


Figure 6.1 - Controller installation

1. Clip
2. Controller
3. Mounting Rail



## Controller mounting

- 6.3 For installation on the rail pull the clip (1) on the bottom cover of the controller and put the controller (2) on the rail (3), holding the controller on the rail close the clip as shown in the picture (Fig.6.1)
- 6.4 Controller is connected according to the schematic shown in Figure 6.2. The polarity of the voltage is not important. Cross-section of cable for power connections must be not more than  $2\text{mm}^2$  (14AWG). To connect the KNX use single-core cable with a cross-section of no more than  $0.52\text{mm}^2$  (20 AWG).

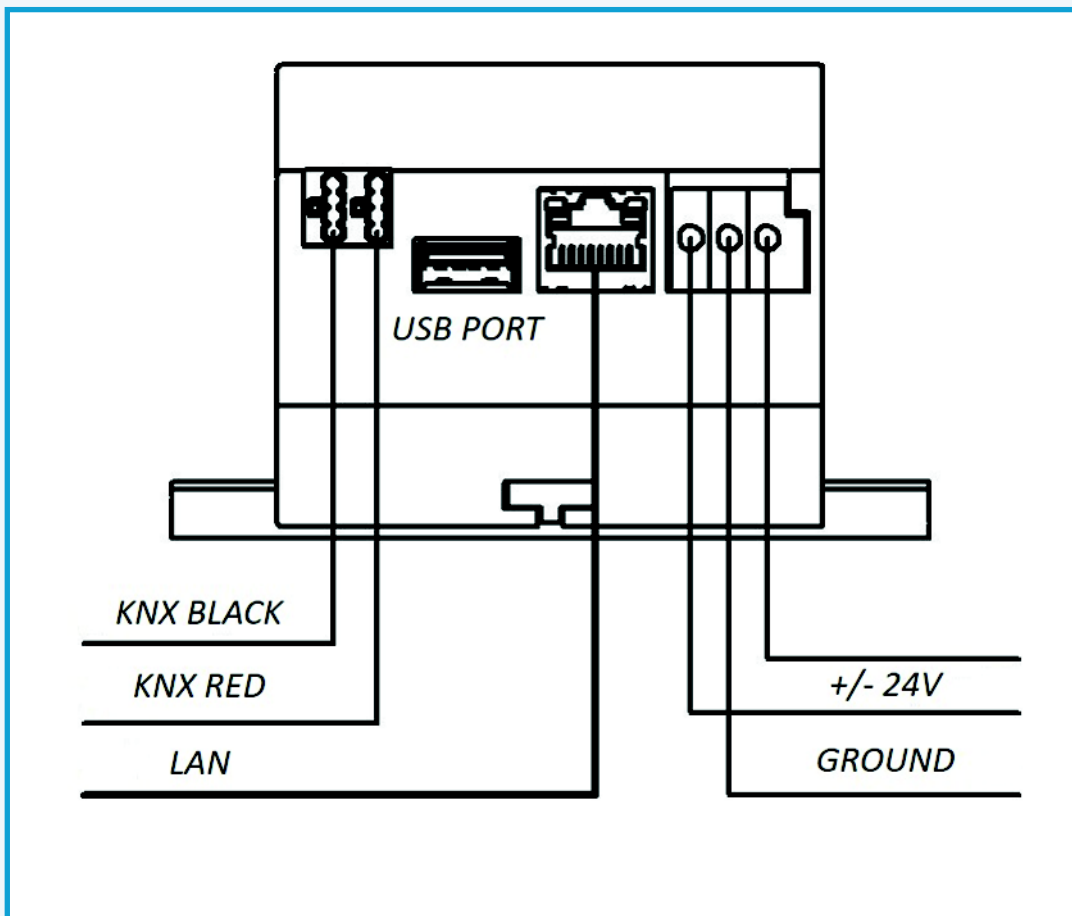


Figure 6.2 - Connecting the controller

## 7. Operating instructions.

The controller operates autonomously, automatically and does not require constant maintenance and supervision. The controller provides control and monitoring status of devices connected via a KNX bus. The controller can be accessed from a user device, via the Internet or LAN (10/100 BASE-T).

Standard operating mode is indicated by blinking LEDs PWR and KNX; OUT and IN LEDs indicate data exchange via KNX bus. LAN connector LED indicates data exchange via Ethernet. Before installing the controller it is recommended to check network settings (default IP and MAC addresses are marked on the label on the controller case). If addresses are not known, you have to go through the initial setup of the controller and the Ethernet interface (see section 10 - Restore default settings).

## 8. Transportation and storage.

Device must be delivered to the installation site and stored in the package provided by the manufacturer.

## 9. Warranty.

Manufacturer guarantees that the product meets demands of current regulatory documents under the conditions that transportation, storage, installation and operation requirements are followed.

The warranty period is 12 months from the date of commissioning (sales).

During the warranty period, the customer has the right to replace the defective controller at the authorized retailer's office.

Warranty does not apply to the controller broken warranty seals, mechanical damage or other signs of violation of the rules of transportation, storage or operation.

### 10. Restore default settings.

The controller provides the ability to reset to factory defaults the network interface and the user accounts, if you want to restore these settings to their factory defaults.

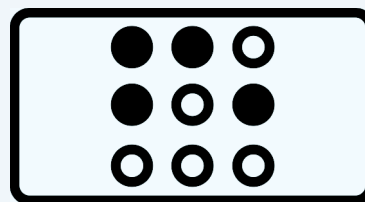
For settings restore you have to perform the following steps:

1. Press and hold the FNC (Functional) button
2. Press and release the RST (Reset) button
3. Wait for OS loading (30 - 60 seconds) without releasing the button FNC (as a result the successful recovery the controller will give a signal twice - both LEDs blink (IN and OUT)).
4. Release the button FNC

After step 4 the controller has a factory default network settings as listed on the case sticker.

### 11. Troubleshooting.

Malfunction	Sign of malfunction	Solution
The controller does not work	LED PWR doesn't light up	Check connections to the power supply connector 2, Fig. 4.2
No data on the KNX	LED KNX doesn't light up	Check connections to the KNX connector 1, Fig. 4.2
No data on the LAN bus	LED LAN doesn't light up	Check the connection in the LAN socket



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