

# EKA

## EVS Series Remote Control Receivers EKA/EKA2



# KONTAL

CE



Before starting to use your device, be sure to read the user manual. Carefully follow the specified steps in the installation, electrical connection, and first start-up sections. After this stage, the product owner/user must keep this user manual in a known and accessible place for the entire service life of the product.

- Store the product in a dry environment. Otherwise, the product may malfunction.
- For products that operate with a battery, the battery is not covered by the warranty. Likewise, for products that have reached the end of their shelf life, malfunctions caused by battery discharge or leakage are not covered by the warranty.
- All service and repair operations may only be performed by Kontal Elektronik technical service. The product must not be tampered with by any other persons.
- The operating voltage of each product is indicated on its label. Do not power the product from a source outside this voltage value.



- ✓ Using the product in a manner that does not comply with the items specified above may cause fire, serious personal injury, or damage to the product or the structure it is installed in. Kontal Elektronik San. ve Tic. Ltd. Şti. accepts no responsibility for such situations caused by the user.
- ✓ This symbol will be used for important points in the following sections.



- ✓ Do not touch the power terminals of the product with bare hands.
- ✓ This symbol will be used for warnings related to voltage in the following sections.



- ✓ This symbol on the label indicates that the supply voltage of the product is DC.



- ✓ This symbol on the label indicates that the product has reinforced insulation.



- ✓ This symbol on the product or its packaging indicates that this product must not be treated as normal household waste. Instead, the product must be handed over to the designated collection points for the recycling of electronic equipment. Incorrect disposal or destruction of the product may lead to negative consequences for the environment and human health.



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- ✓ Make sure that the system is grounded for the product to operate properly.

# 1. DESCRIPTION

EKA is a remote control receiver that operates with EVS series remote controls and provides a dry contact NO (Normally Open) relay output. It can store up to 250 different remote controls in its memory. Thanks to its remote learning feature, new remote controls are easily added, without requiring any software or complex programming. Designed for use in automation applications such as garage doors, barrier systems, lighting, and similar systems, EKA offers a reliable, flexible, and expandable control solution with its user-friendly structure and quick installation.

## 1.1 BOX CONTENTS

|                                             |                                        |
|---------------------------------------------|----------------------------------------|
| <b>1x EKA - EVS Remote Control Receiver</b> | <b>1x Internal Wire Antenna (17cm)</b> |
|---------------------------------------------|----------------------------------------|

# 2. TECHNICAL SPECIFICATIONS

| Model                                      | EKA                 | EKA2                |
|--------------------------------------------|---------------------|---------------------|
| <b>Product Code</b>                        | K168-01             | K169-01             |
| <b>Operating Voltage</b>                   | 12/24 V DC          | 12/24 V DC          |
| <b>Operating Current</b>                   | 40mA @ 24V DC       | 50mA @ 24V DC       |
| <b>Operating Frequency</b>                 | 433.92MHz           | 433.92MHz           |
| <b>Operating Modes</b>                     | Pulse / Toggle      | Pulse / Toggle      |
| <b>Number of Channels</b>                  | 1                   | 2                   |
| <b>Contact Type</b>                        | Dry Contact (NO)    | Dry Contact (NO)    |
| <b>Contact Rating</b>                      | 250V AC 10A (Max.)  | 250V AC 10A(Max.)   |
| <b>Remote Control Capacity</b>             | 250                 | 250                 |
| <b>Weight</b>                              | 95g                 | 106g                |
| <b>Dimensions</b> (Width x Height x Depth) | 82.5 x 108.5 x 35mm | 82.5 x 108.5 x 35mm |

# 3. USER CONFIGURATION COMPONENTS

JMP1: You can use this component to set the operating voltage of your product.

JMP2: You can use this component to set the operating mode of the 1st relay of your product.

JMP3(*Only for EKA2 Model*): You can use this component to set the operating mode of the 2nd relay of your product.

BTN: You can use this component to add and delete remote controls on your product.

# 4.EKA CONTROL BOARD INSTALLATION AND FIRST START-UP

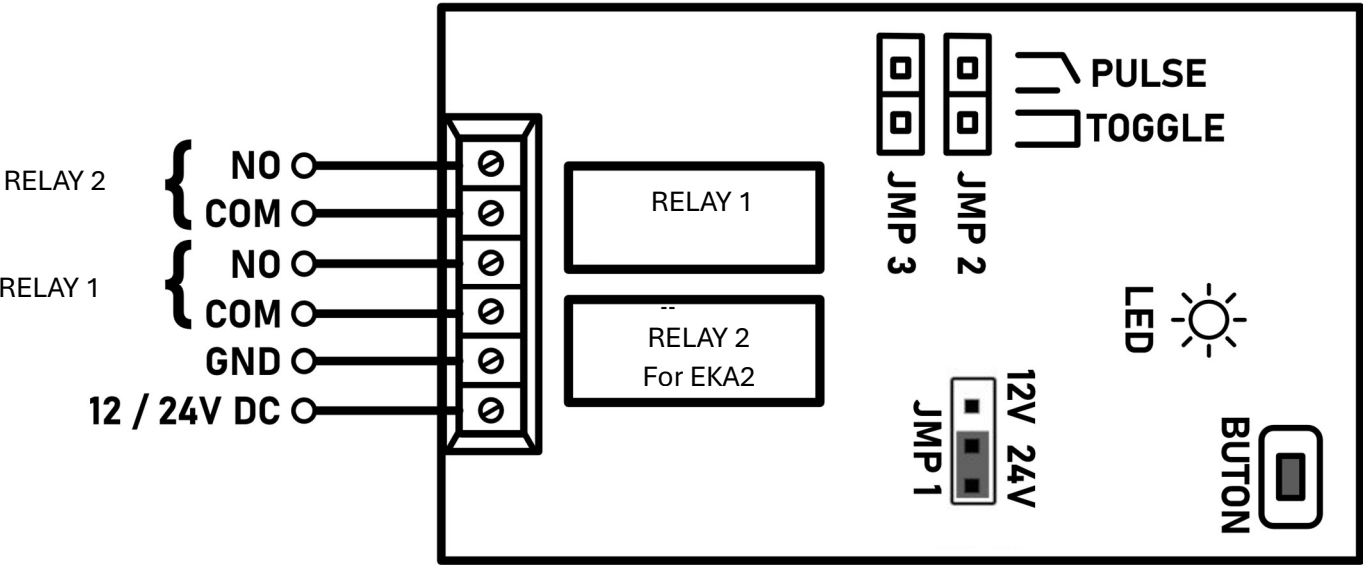


Figure 4.1 EKA / EKA2 Control Board

- a. Set the operating voltage of the product using JMP1.



JMP1 12V DC Operating Voltage Selection



JMP1 24V DC Operating Voltage Selection



Do not supply the product with power outside the specified operating voltage. Otherwise, the device may be damaged!



After the power connections of the product have been made, never touch the connection points!



For the device to operate correctly and stably, it is recommended to use a power supply with an output power of at least 2.5 W on the supply line.

- b. Set the operating mode of the relays on the product using JMP2 and JMP3.

| RELAY 1<br>OPERATING MODE<br>PULSE | RELAY 1<br>OPERATING MODE<br>TOGGLE | RELAY 2<br>OPERATING MODE<br>PULSE | RELAY 2<br>OPERATING MODE<br>TOGGLE |
|------------------------------------|-------------------------------------|------------------------------------|-------------------------------------|
| JMP2 Inactive                      | JMP2 Active                         | JMP3 Inactive                      | JMP3 Active                         |
|                                    |                                     |                                    |                                     |
| JMP 2                              | JMP 2                               | JMP 3                              | JMP 3                               |

## 5. EKA – ADDING / DELETING REMOTE CONTROLS

### 5.1 Adding a Remote Control

- **Step 1:** Make the power connection of the product and power it on.
- **Step 2:** When the product is powered on for the first time, the LED on the product will flash a certain number of times to give feedback about the remote control memory of the product; these feedback signals are shown in the table below.

| Flashes ON/OFF 1 Time                                                                                                             | Flashes ON/OFF 3 Times                                                   |
|-----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| A remote control has been previously added to the product. There is at least 1 registered remote control in the product's memory. | The product's memory is empty, meaning no remote control has been added. |

- **Step 3:** Press and hold the button on the product until the LED on the product turns steadily on.
- **Step 4:** After the LED on the product turns steadily on, release the button and press/release the relevant channel(s) of the remote control(s) you want to add. For every successful remote control learning, the LED on the product will indicate this by flashing quickly 2/3 times. The product remains in learning mode for 10 seconds; if no learning operation is performed within 10 seconds, the product returns to normal operating mode. Up to 250 EVS series remote controls can be added to the product.

#### Channel Matching Requirement

**When adding a new remote control, the same button/channel used on the old remote control must be selected.**



- **Example: If you added the old remote control using button 1, you must also add the new remote control by pressing and releasing button 1. If a different button is used, the system will not register the new remote control.**

- **Step 5:** The channel-relay matching of the remote controls you have added is shown in the table below;

| Relay controls of remote controls you have added to 2-channel receivers (EKA2) |                                                                                    |
|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Button Added                                                                   | Relay Operating System                                                             |
| 1. If the button has been added                                                | 1. Button 1 will control Relay 1, and Button 2 will control Relay 2.               |
| 2. If the button has been added                                                | 2. Button 1 will control Relay 1, and Button 3 will control Relay 2.               |
| 3. If the button has been added                                                | 3. The button will only operate Relay 1. In this case, you cannot control Relay 2. |

### 5.2 Adding a Remote Control via Remote Learning Mode

Allows you to add a new remote control to the system using an existing remote control, without opening the board cover.



**To perform this operation, at least 1 EVS series remote control must have been previously added to the product.**

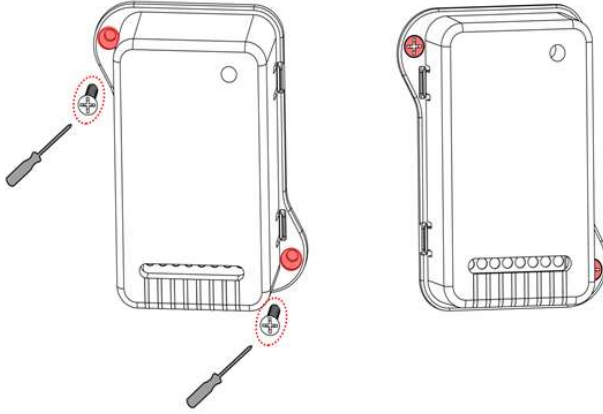
- **Step 1:** Press and hold buttons 1 and 2 of the EVS series remote control you have previously added to the product at the same time for 3 seconds. Release them when the LED on the product turns steadily on after 3 seconds.
- **Step 2:** After 3 seconds, press/release the relevant channel(s) of the remote control(s) you want to add. For every successful remote control learning, the LED on the product will indicate this by flashing quickly 2/3 times. The product remains in learning mode for 10 seconds; if no



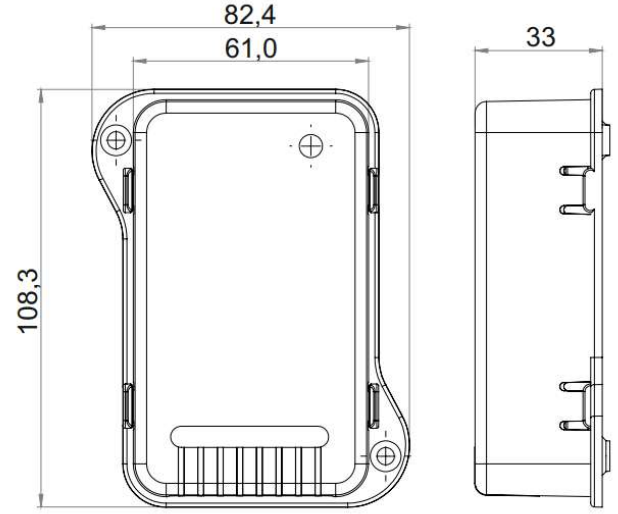


For the device to operate correctly and stably, it is recommended to use a power supply with an output power of at least 2.5 W on the supply line.

## 7.EKA – MOUNTING



*Figure 7.1 EKA screwed onto a flat surface.*



*Figure 7.1 Dimensions (Unit: mm)*

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