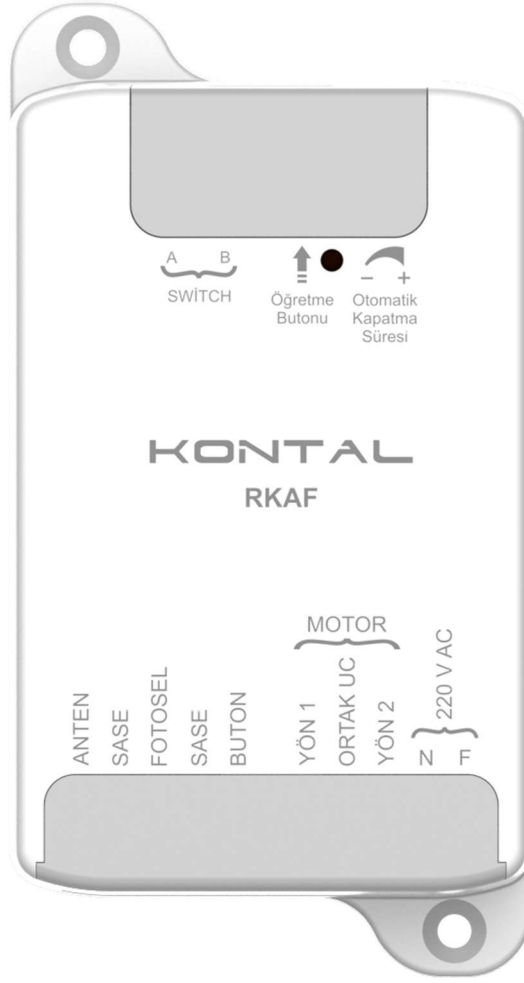


RKAF

Photocell Motor Control Board



KONTAL

CE



Read the user manual carefully before you start using your device. Pay particular attention to the installation, electrical connection and first operation sections, and carry out the stated items step by step. Thereafter, the product owner/user is obliged to keep this user manual in a known and accessible place for the entire life of the product.

- Store the product in a dry environment. Otherwise, the product may malfunction.
- Batteries and accumulators in battery- or accumulator-powered products are not covered by the warranty. Likewise, failures caused by battery or accumulator discharge or leakage in products that have exceeded their shelf life are not covered by the warranty.
- All service and repair work may only be carried out by the Kontal Elektronik technical service. No one else may interfere with the product in any way.
- The operating voltage of each product is stated on its label. Do not power the product from any source other than this voltage value.



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



- ✓ Do not touch the product's power supply points with bare hands.
- This sign will be used for voltage-related warnings in the following sections.



- This sign on the label indicates that the product's supply voltage is DC.



- This sign 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 delivered to a collection point designated for the recycling of electronic equipment. Incorrect disposal or destruction of the product may have negative consequences for the environment and human health.



- The responsibility for this document and its relevant revision, as well as its legal ownership, belongs to KONTAL ELEKTRONİK SAN. VE TİC. LTD. ŞTİ. Unauthorized alteration or modification is prohibited.



- Make sure the system is grounded so that the product can operate properly.

1.DESRIPTION

RKAF is a control unit designed to operate 220V AC tubular and shutter motor systems safely and conveniently. It offers wireless control with **ROLAN series remote controls** and manual control via an external button input. Thanks to compatibility with the MEF safety photocell, it stops the motor the moment an obstacle is detected, ensuring maximum operational safety.

1.1 Box Contents

1x RKAF Shutter Motor Control Board	1x RKAF User Manual 1x 17cm Built-in Wire Antenna
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**For custom orders, the box contents may vary depending on the project or customer request.*

2.TECHNICAL SPECIFICATIONS

Model	RKAF
Product Code	K018-01
Operating Voltage	220V AC
Operating Current	10mA @ 220V AC
Operating Frequency	433.92MHz
Operating Temperature	-20 °C +55 °C
Contact Type	220V AC
Contact Capacity	250V AC 10A
Contact Pull-In Time (Adjustable)	5s (min.) / 3min (max.)
Remote Control Capacity	35
Weight	190g
Dimensions (Width X Length X Depth)	72 132 x 35mm

3. RKAF – USER ADJUSTMENT COMPONENTS

BUTTON : With this component, you can register ROLAN series remote controls to the control board and set the control board's auto-close time.

POT 1 : With this component, you can adjust the control board's auto-close time.

DIPSW1/DIPSW2 : With these components, you can enable / disable the photocell and auto-close modes of the control board.



Always disconnect the device from the power supply before making any electrical connections. Otherwise, electric shock or device failure may occur.



Never touch the connection points after the product's power connections have been made!



The fuses in the product have been added by design so that you can easily access and replace them whenever necessary.

4. RKAF – CONTROL BOARD

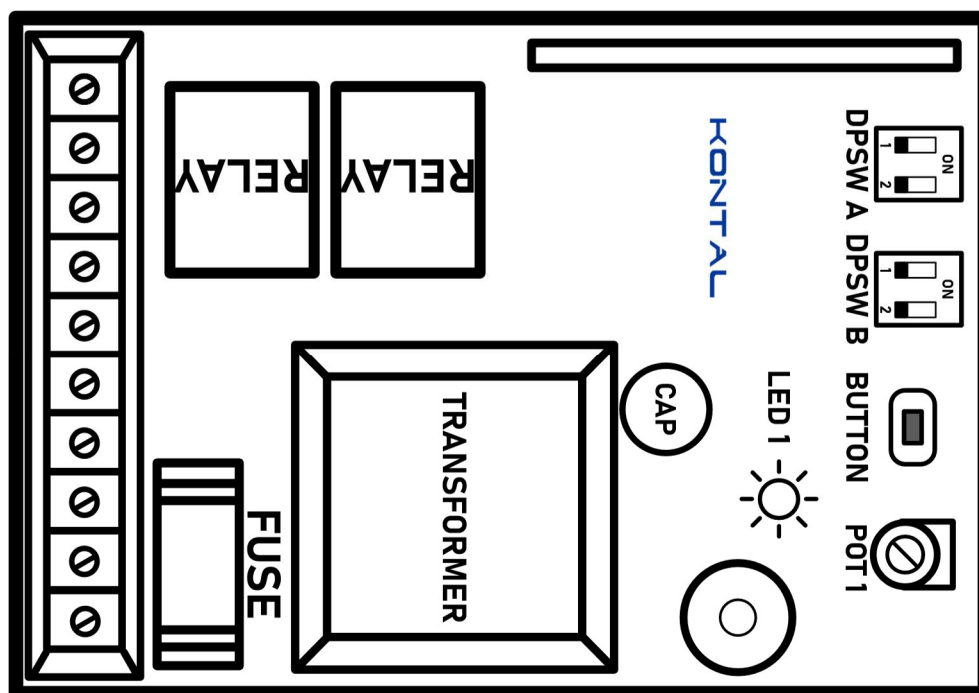
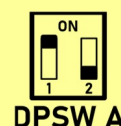


Figure 4.1 RKAF Control Board



To be able to follow the steps below, the MEF safety photocell must be connected to the system. If the safety photocell will not be used, dipswitch no. 1 on DPSW-A must be set to the ON position. Otherwise, none of the described steps can be carried out!



5. RKAF – REMOTE CONTROL REGISTRATION / DELETION

5.1 Remote Control Registration

1. Remote Control Programming:

Before registering a new remote control to the receiver board, *your Rolan model remote control* must be properly programmed using the **LCD CODER** device.

2. Powering Up the Board:

To operate the receiver board, apply the appropriate supply voltage to your control board to activate the system.

3. Start-Up Alert:

When the board is powered up, the buzzer on the board will sound an audible alert:

- **3 short beeps:** No remote control has been registered before.
- **1 short beep:** A remote control has been registered before.

4. Remote Control Learning and Deletion Operations:

The single button on the receiver board is used for the following operations:

• Registering a New Remote Control:

Press and hold the button for approximately **1–2 seconds** and release it. The board will enter learning mode and the buzzer will sound continuously for approximately **6–7 seconds**. During this time, press the relevant button on the remote control you want to register. If the remote control is registered successfully, the buzzer gives **3–4 short and quick beeps**.

If no remote control is registered, learning mode will end and the audible alert will stop.

• If the First Remote Control Is Being Registered:

If a remote control is being registered to the receiver board **for the first time**, the **channel** of the

registered button is set as the system's operating channel. All remote controls registered afterwards must have the **same channel** as this designated channel. In other words, only remote controls with the **same channel** can be registered to a receiver board.

5. Channel and Relay Mapping:

On 2- and 4-channel receivers, the relevant channel of the registered remote control controls **relay 1**. The following channels automatically trigger the other relays in sequence.

For example:

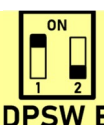
- Remote control **button 1** → **relay 1**
- Remote control **button 2** → **relay 2**
- Remote control **button 3** → **relay 3**
- Remote control **button 4** → **relay 4**

These channels do not need to be registered to the receiver board separately. The control board recognizes consecutive channels automatically.

5.2 Registering Remote Controls with Remote Learning Mode



For this feature to be active, dipswitch no. 1 on DPSW-B must be in the ON position.



For this feature to be usable, at least 1 remote control must have been registered to the control board beforehand.

Thanks to this feature, new remote controls can easily be registered to the system without physically accessing the RKAF control board.

Follow the steps below in order to carry out the procedure:

Step 1 : On the RKAF control board, verify that DPSW-B **switch 1 is in the "ON" (Open)** position.

Step 2 : Take one of the remote controls that **have already been registered** to the system. Press and hold **button 1 (channel 1)** of this remote control for **approximately 12-15 seconds** (do not lift your finger from the button).

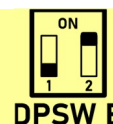
At the end of this time, the remote control will send a signal that automatically switches the RKAF board to "remote control learning" mode.

Step 3 : You can register your new remote control to the control board that has entered learning mode conveniently, without touching the board by hand and without any physical intervention.

5.3 Registering Remote Controls with Auto Learning Mode



For this feature to be active, dipswitch no. 2 on DPSW-B must be in the ON position.



For this feature to be usable, at least 1 remote control must have been registered to the control board beforehand.

In this mode, you can register ROLAN series remote controls that are not yet registered to the control board and that have the same company code as the remote control already registered to the board, simply by pressing and releasing their relevant buttons, without touching the control board. With each successful remote control registration, the control board buzzer will give **2 short beeps**. Up to **35 ROLAN** series remote controls can be registered to the control board.

5.4 Deleting Remote Controls

Step 1 : Cut the power to the control board, then restore the power while holding down the BUTTON.

Step 2 : The buzzer on the board will sound; keep holding the button until the sound stops. When the sound stops, release the button. When the buzzer then beeps 5 times, all remote controls have been deleted.

6. RKAF – CONTACT PULL-IN TIME SETTING

Step 1 : Cut the power to the control board.

Step 2 : Set switches 1 and 2 on DIPSW2 to the ON position.

Step 3 : Restore the power to the control board.

Step 4 : While the LED on the board is steadily lit, press and release the button on the board twice in succession.

Step 5 : The buzzer on the board will beep once and the system connected to the control board will start operating in the closing direction (the relays will output in the closing direction).

Step 6 : When your system has fully closed (reached its limit / the roller door has closed), press and release the button on the board once. After this, the control board has stored the contact pull-in time in its memory.



If the operation in STEP 4 is not performed within 10 seconds, the system will switch to normal operating mode.

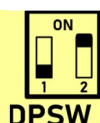


If no setting is made, the system's default relay pull-in time is 1.5 minutes. For manual time settings, the system only accepts values between 5 seconds and 3 minutes (180 seconds); times below or above these limits are not stored in memory. To change the time again, the setting steps must be repeated from the beginning. In addition, during installation, if the photocell detects an obstacle while the door is moving in the closing direction, the motor stops for safety and the time elapsed until the moment the obstacle was detected is automatically saved as the new relay pull-in time.

7. RKAF – AUTO-CLOSE TIME SETTING



For this feature to be active, dipswitch no. 2 on DPSW-A must be set to the ON position.



Thanks to this feature, after the motor brings the system it is connected to (roller door, shutter, etc.) to the fully open position, it automatically starts moving in the closing direction when the predetermined waiting time has elapsed. This way, there is no need to give another command from the remote control to complete the operation. Follow the instructions below to set this time:

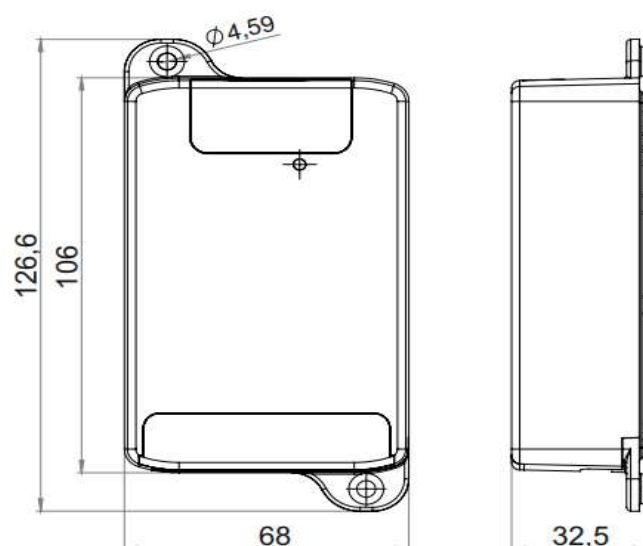
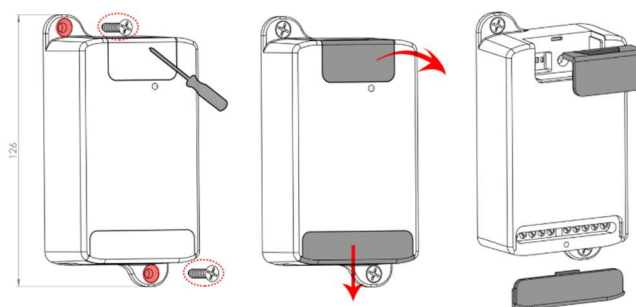
You can set the product's auto-close time using POT1. Turning POT1 clockwise increases the auto-close time, and turning it counterclockwise decreases it. The auto-close time can be set to a minimum of **5 seconds** and a maximum of **60 seconds**.



8.RKAF – DIPSWITCH FUNCTIONS

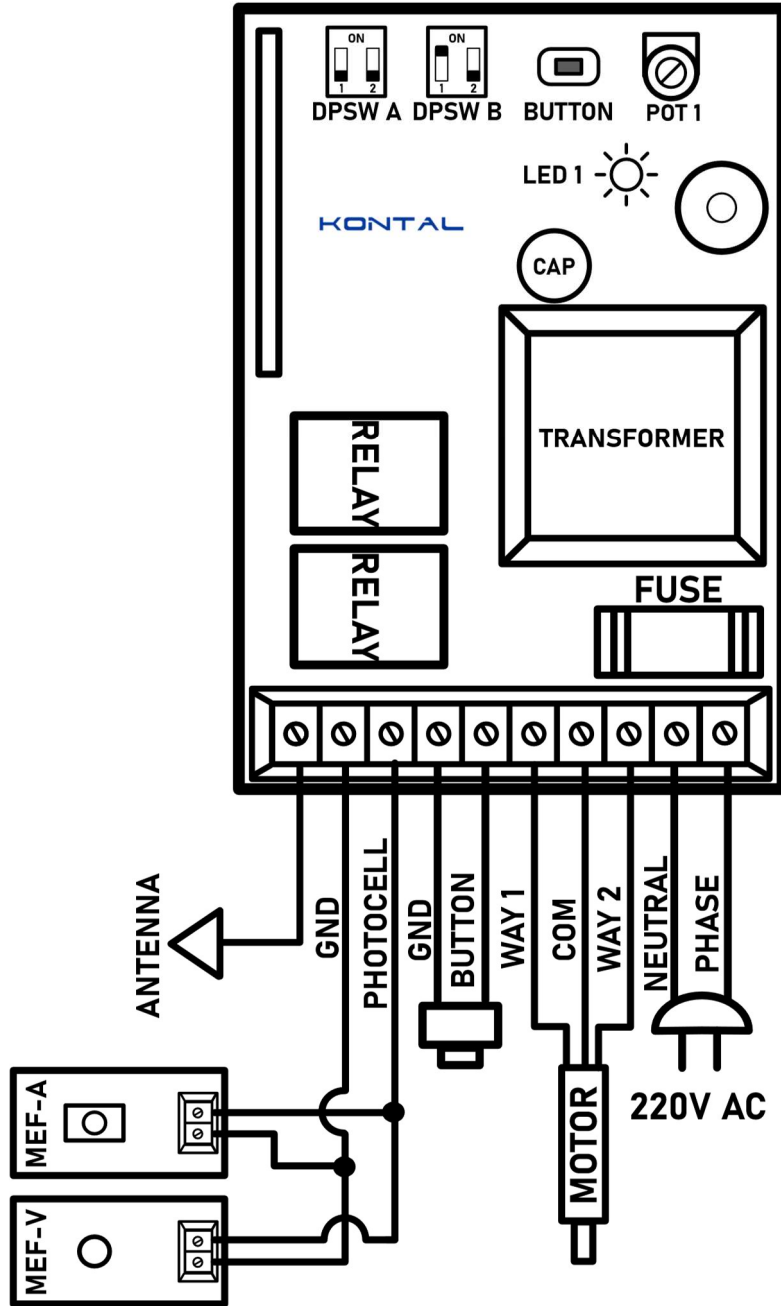
DIPSW NO	DIPSW POSITION	FUNCTION
DPSW-A		
1	ON	Photocell feature disabled.
	OFF	Photocell feature active.
2	ON	Auto-close feature active.
	OFF	Auto-close feature inactive.
DPSW-B		
1	ON	Remote learning mode active.
	OFF	Remote learning feature inactive.
2	ON	Auto learning feature active.
	OFF	Auto learning feature inactive.

9.RKAF – MOUNTING



RKAF Dimensions (Unit: mm)

10. RKAF – CONNECTION DIAGRAM



Always disconnect the device from the power supply before making any electrical connections. Otherwise, electric shock or device failure may occur.



Never touch the connection points after the product's power connections have been made!



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