

# RDR - M

## Automatic Door Radar



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Before operating the device, be sure to read this user manual carefully. Follow the steps described in the installation, electrical connection, and initial startup sections with attention. After completing these steps, the product owner/user must keep this manual in a known and easily accessible location for the entire service life of the product.



- Store the product in a dry environment. Otherwise, malfunctions may occur.
- In battery- or accumulator-powered products, batteries and accumulators are not covered under warranty. Similarly, failures caused by battery discharge or leakage in products that have exceeded their shelf life are not covered under warranty.
- All service and repair operations must be carried out exclusively by Kontal Elektronik technical service. The product must not be tampered with by unauthorized personnel.
- The operating voltage of each product is indicated on the label. Do not supply the device with a voltage different from the specified value.



- ✓ Failure to comply with the above-mentioned conditions may result in fire, serious personal injury, or damage to the product or the structure in which it is installed. In such cases caused by user negligence or misuse, **Kontal Elektronik San. ve Tic. Ltd. Şti.** assumes no responsibility.
- ✓ This symbol will be used to highlight important notes in the following sections.



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



- ✓ This symbol on the label indicates that the device operates with a DC supply voltage.



- ✓ This symbol on the label indicates that the device is equipped with reinforced insulation.



- ✓ This symbol on the product or its packaging indicates that the product must not be disposed of as household waste. Instead, it should be delivered to designated collection points for the recycling of electrical and electronic equipment. Improper disposal or destruction of the product may have adverse effects on the environment and human health.



- ✓ This document and its revisions are the legal property and responsibility of **KONTAL ELEKTRONİK SAN. VE TİC. LTD. ŞTİ.** Any unauthorized modification or alteration is strictly prohibited.



- ✓ Ensure that the system is properly grounded for the device to operate reliably.

# 1. DEFINITION

**RDR-M** is a radar detection sensor developed for automatic door systems. It detects the movement of people or objects and transmits a trigger signal to the connected door system, enabling automatic door operation. Thanks to its user-friendly interface, the radar's detection range can be manually adjusted using a built-in control component. The detection distance can reach up to 4 meters. With its high detection accuracy and durable structure against environmental conditions, RDR-M is an ideal solution for entrances of stores, offices, hospitals, and other areas with high pedestrian traffic. Areas such as store entrances, offices, hospitals, and similar access points.

## 1.1 BOX CONTENT

The contents of the **RDR-M – Automatic Door Radar** package are listed below:

|                                        |                                                                          |
|----------------------------------------|--------------------------------------------------------------------------|
| <b>1x RDR-M – Automatic Door Radar</b> | <b>1x RDR-M Socketed Connection Cable</b><br><b>1x RDR-M User Manual</b> |
|----------------------------------------|--------------------------------------------------------------------------|

*\*For special orders, the box contents may vary depending on the project or customer requirements.*

# 2. TECHNICAL SPECIFICATION

|                                  |                                |
|----------------------------------|--------------------------------|
| <b>Model</b>                     | RDR - M                        |
| <b>Product Code</b>              | K216-01                        |
| <b>Working Volatage</b>          | 24V DC                         |
| <b>Working Current</b>           | 10mA @ 24V DC                  |
| <b>Contact Type</b>              | Dry Contact (NO / NC)          |
| <b>Contact Capacity</b>          | 30V DC 1A / 125V AC 0.3A(Max.) |
| <b>Relay Activation Duration</b> | 1sn                            |
| <b>Working Distance</b>          | 4m (Max.)                      |
| <b>Weight</b>                    | 90 gr                          |
| <b>Dimensions</b>                | 72 x 42 x 44 mm                |

# 3. ADJUSTMENT COMPONENT

**POT1:** This component allows you to adjust the detection range of your device.  
(See also Section 4.1)

**JMP1:** This component allows you to configure the relay output contact of your device.(See also Section 4.1)

**LED1 / RED LED:** This component indicates the detection status of your device.

**LED2 / BLUE LED:** This component indicates that the device has successfully detected a valid target.

## 4. RDR-M CONTROL BOARD

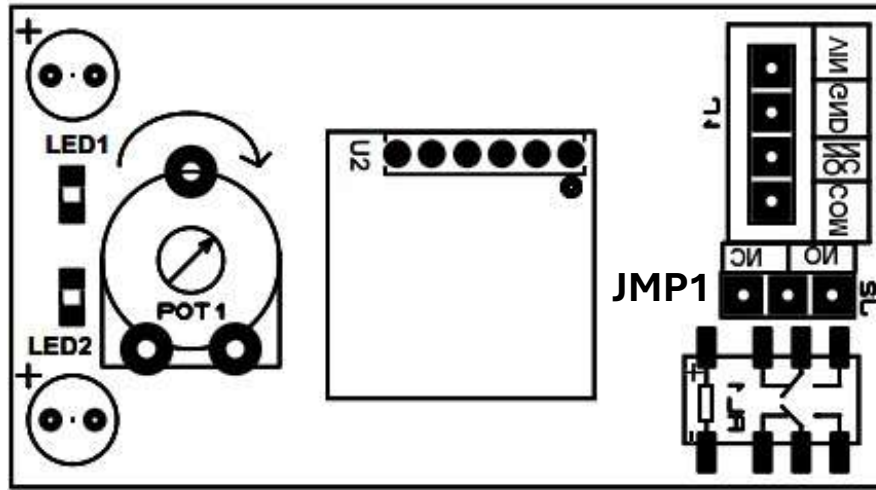


figure 4.1 – RDR-M Control Board

### 4.1 RDR-M CONTROL BOARD INSTALLATION AND INITIAL START-UP

- Remove the top cover of your device.
- Adjust the detection range of your device using **POT1**, located on the control board.

Turning **POT1 clockwise** will increase the detection range, while turning it **counterclockwise** will decrease it. The maximum detection range of the device is **4 meters**.

- Adjust the relay contact selection of your device using **JMP1**.



When power is first applied to the product, the blue LEDs flash three times consecutively. Following this, the device does not perform detection for 5 seconds. After the startup period is completed, the product automatically returns to normal operating mode.

a.



Figure 4.1.1 – RDR-M  
NO Contact Selection



Figure 4.1.2 – RDR-M  
NC Contact Selection



**JMP1 is located on the back side of the board!**

- Make the cable connections of your device as shown below;

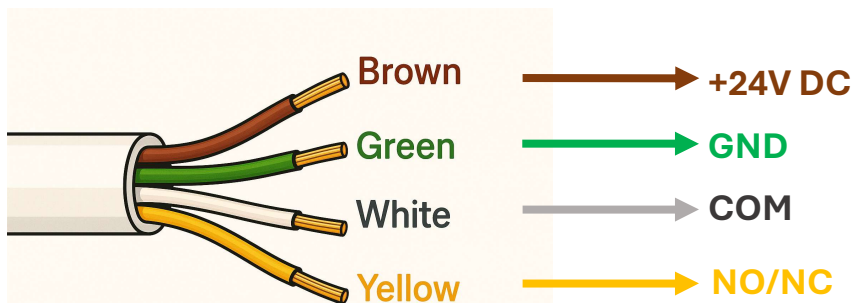


Figure 4.1.3 – RDR-M Socketed Cable Connection Diagram (See Also Connection Schema)

## 5. CONNETION SCHEMA

The wiring diagram for **RDR-M NC (Normally Closed Contact)** is provided below:

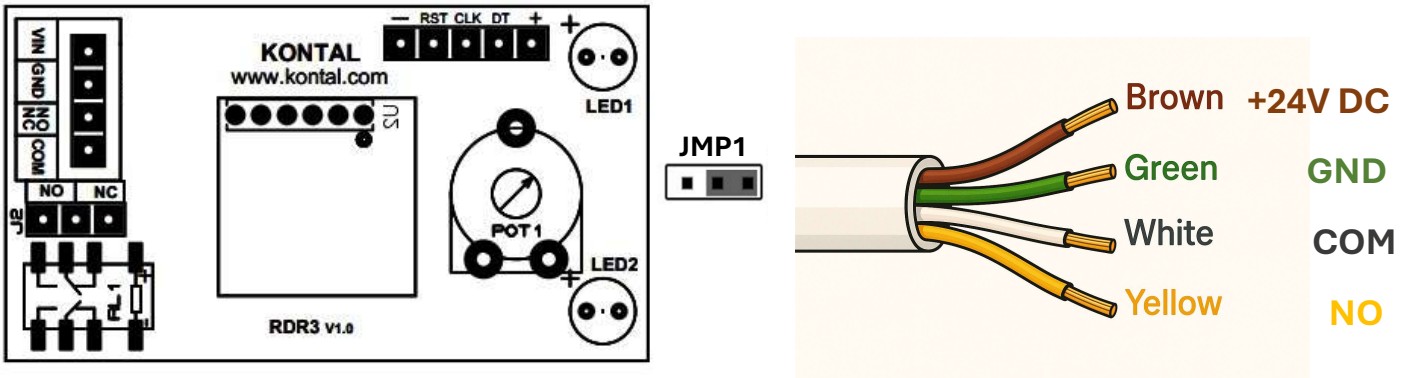


Figure 5.1 – RDR-M NC Connection Schema

The wiring diagram for **RDR-M NO (Normally Open Contact)** is provided below:

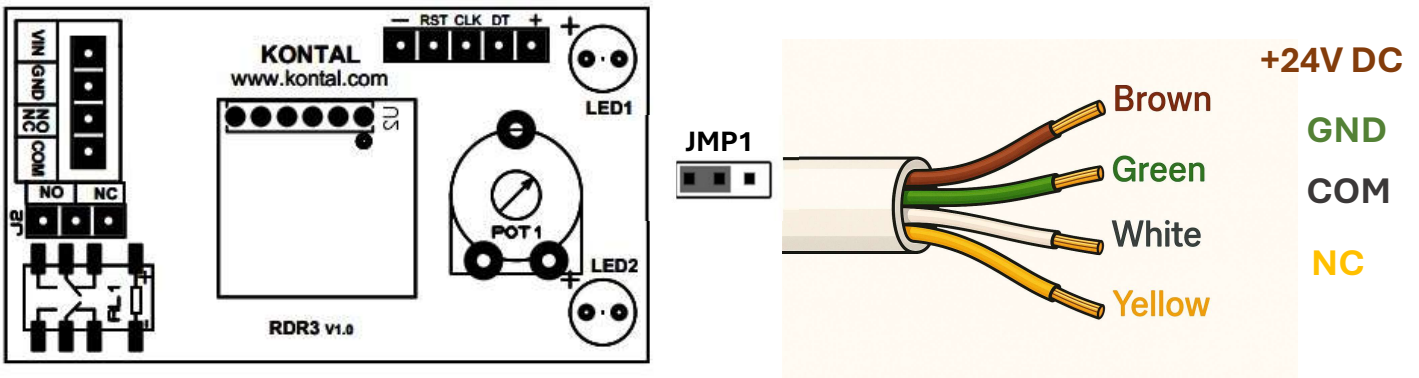


Figure 5.2 – RDR-M NO Connection Schema



**JMP1 is located on the back side of the board!**



**When connecting the power supply to the product, pay attention to the “+” and “-” polarities.**



**Do not supply power to the product with a voltage other than the specified operating voltage; otherwise, the device may be damaged.**



**To ensure stable and reliable operation, it is recommended to use a power supply with a minimum output power of 1 W on the supply line.**

## 6. INSTALLATION

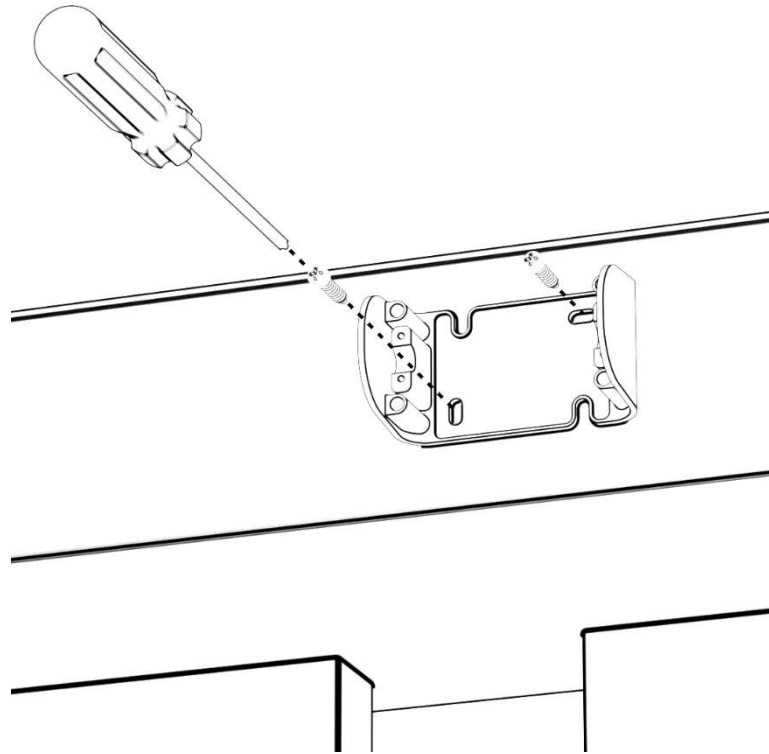


Figure 6.1 – Mounting the RDR-M on a flat surface

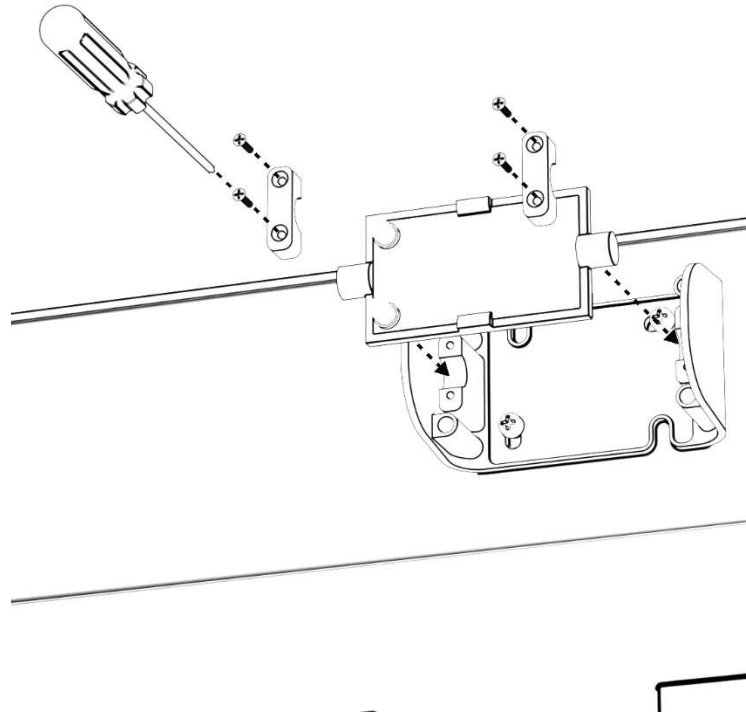


Figure 6.2 – Screwing the RDR-M board and mounting

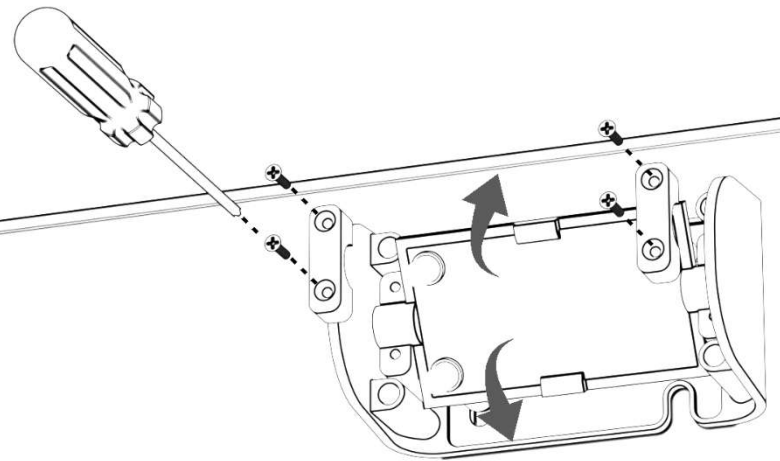


Figure 6.3 – Adjusting the RDR-M detection angle

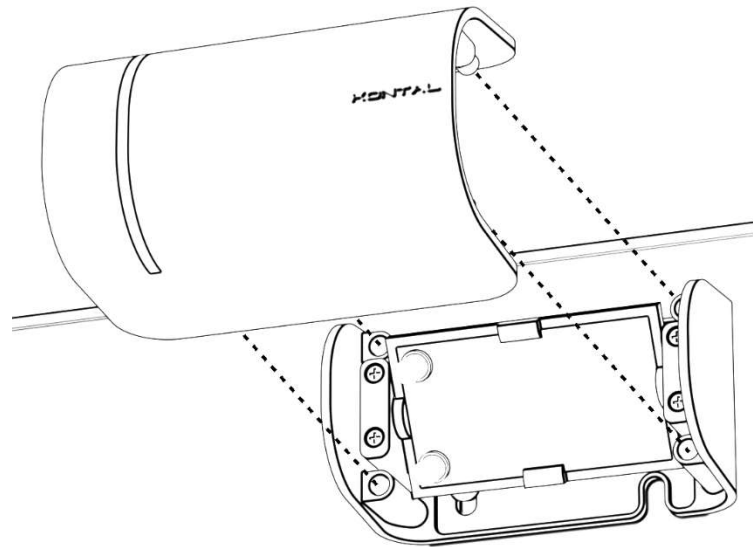
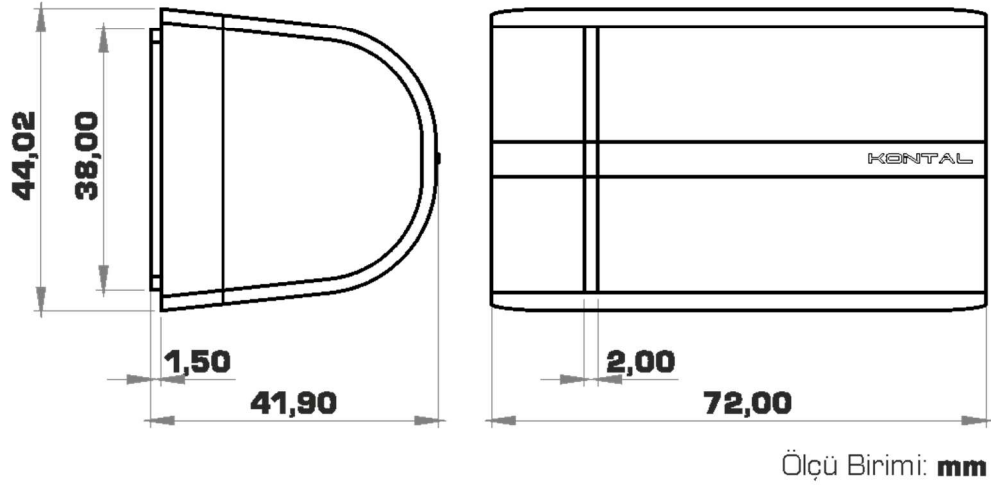


Figure 6.4 – Attaching the RDR-M top cover



*Figure 6.5 – RDR-M Dimensions (Unit: mm)*

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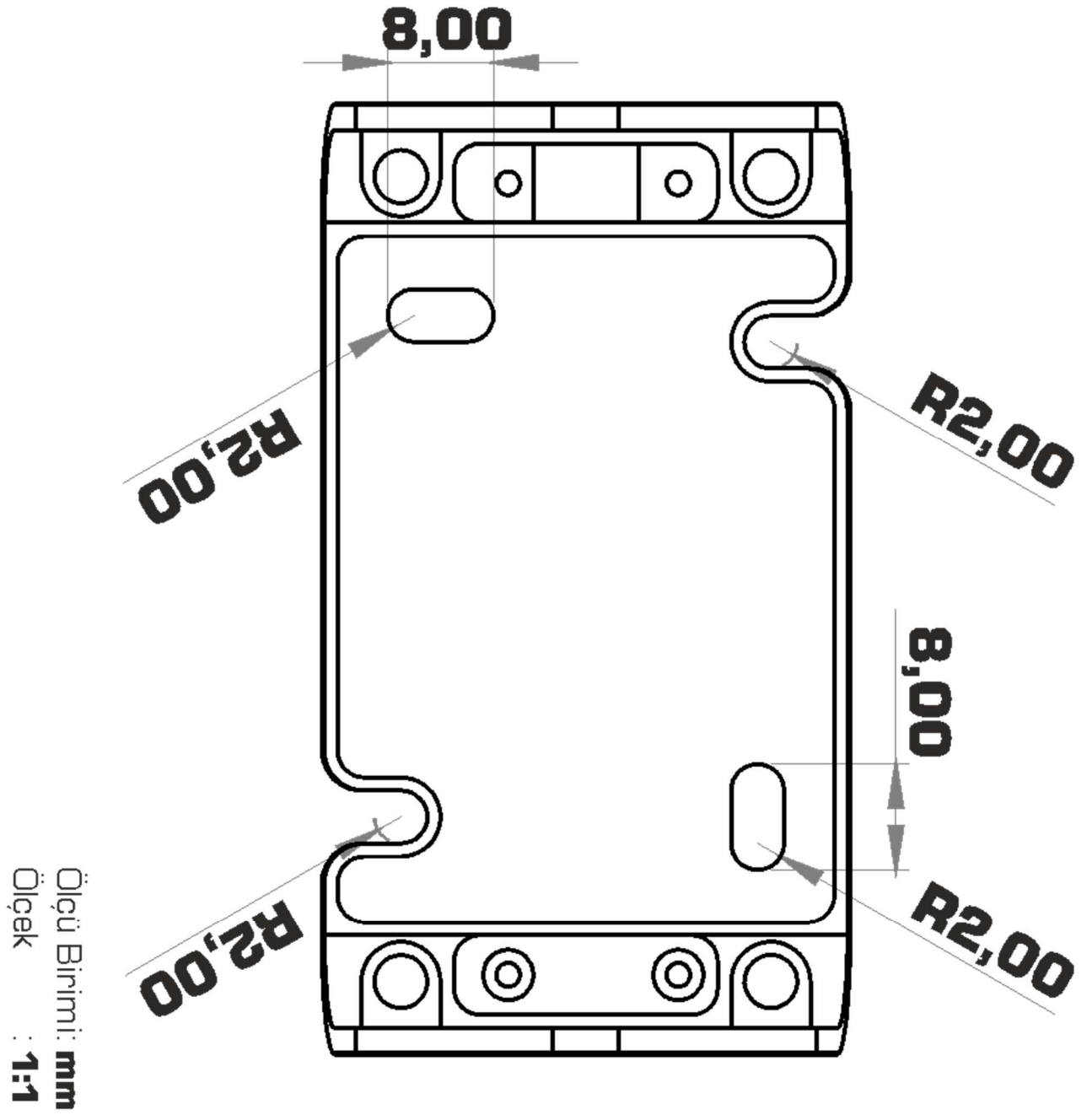
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*A 1:1 scale drilling template is provided to facilitate easy installation.  
You can fix the printed template onto the mounting surface and drill  
directly through the indicated points to ensure correct hole positioning.*