

RDR

Automatic Door Radar



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 is a high-precision and highly configurable radar sensor developed for automatic door systems. It allows independent adjustment not only of the detection range but also of the following parameters:

- **Detection speed** (sensitivity according to the object's movement speed)
- **Detection range** (up to a maximum of 4 meters)
- **Continuity of motion** (distinguishing between single and continuous movements)
- **Detection sensitivity** (sensitivity level according to environmental conditions)

Thanks to this flexibility, it can be optimized for various door types, environmental conditions, and user scenarios. With improved filtering algorithms, false detections are minimized, providing stable and reliable performance.

1.1 BOX CONTENT

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

1x RDR – Automatic Door Radar	1x RDR Socketed Connection Cable 1x RDR User Manual
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**For special orders, the box contents may vary depending on the project or customer requirements.*

2. TECHNICAL SPECIFICATION

Model	RDR
Product Code	K007-01
Working Volatage	24V DC
Working Current	14mA @ 24V DC
Contact Type	Dry Contact (NO / NC)
Contact Capacity	30V DC 1A / 125V AC 0.3A(Max.)
Relay Activation Duration	1sn
Working Distance	4m (Max.)
Weight	150 gr
Dimensions	140 x 78 x 90 mm

3. ADJUSTMENT COMPONENT

POT1: This potentiometer is used to adjust the object detection speed of the radar. Turning it clockwise (+) increases the radar's sensitivity to faster-moving objects. Turning it counterclockwise (–) decreases the maximum object speed the radar can detect.*(See also Section 4.1)*

POT2: This potentiometer is used to adjust the detection range of the radar. A clockwise (+) adjustment increases the detection range, while a counterclockwise (–) adjustment decreases it.*(See also Section 4.1)*

POT3: This potentiometer is used to adjust the radar's sensitivity to continuous motion. A clockwise (+) adjustment decreases sensitivity, while a counterclockwise (–) adjustment increases it.*(See also Section 4.1)*

JMP1: This component is used to configure the relay output contact of the device.
(See also Section 4.1)

RED LED: This component indicates the detection status of the device.

BLUE LED: This component confirms that the device has successfully detected a valid object.

4. RDR CONTROL BOARD

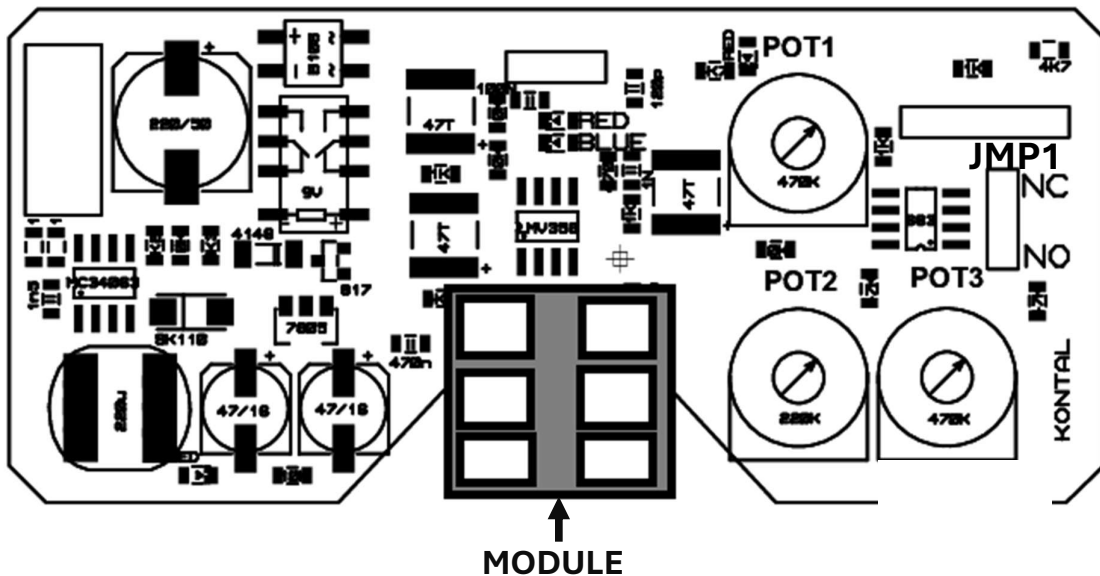


Figure 4.1 - RDR Control Board

4.1 RDR CONTROL BOARD INSTALLATION AND INITIAL START-UP

- a) a) Remove the top cover of your device. (See also Installation Figure 6.1)
- b) b) Adjust the detection speed of your device using **POT1** on the control board. Turning **POT1 clockwise** will increase the detection speed, while turning it **counterclockwise** will decrease it.
- c) c) Adjust the operating (detection) range of your device using **POT2** on the control board. Turning **POT2 clockwise** will increase the detection range, while turning it **counterclockwise** will decrease it. The maximum detection range of the device is 4 meters.
- d) d) To adjust the sensitivity to continuous motion, use **POT3** on the control board. Turning **POT3 clockwise** will decrease the sensitivity, while turning it **counterclockwise** will increase it.

a.



*Figure 4.1.1 – RDR NO
Contact Selection*



*Figure 4.1.2 – RDR NC
Contact Selection*

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

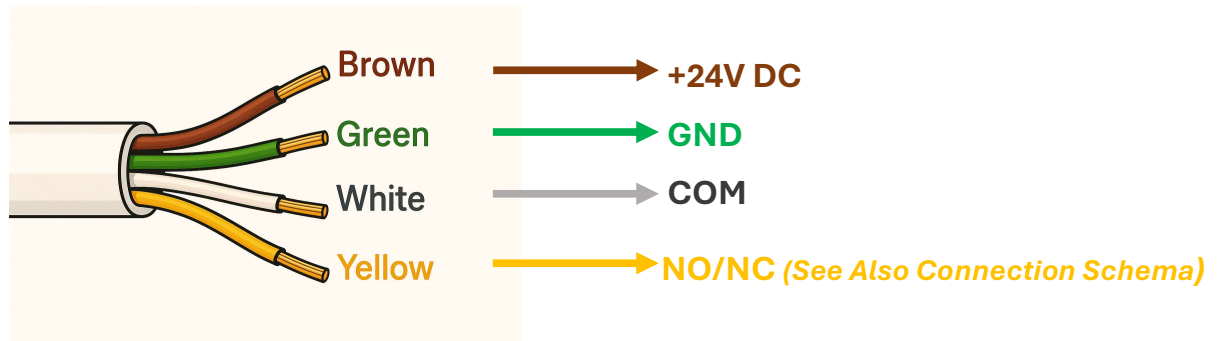


Figure 4.1.3 – RDR Socketed Cable Connection Diagram

5. CONNETION SCHEMA

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

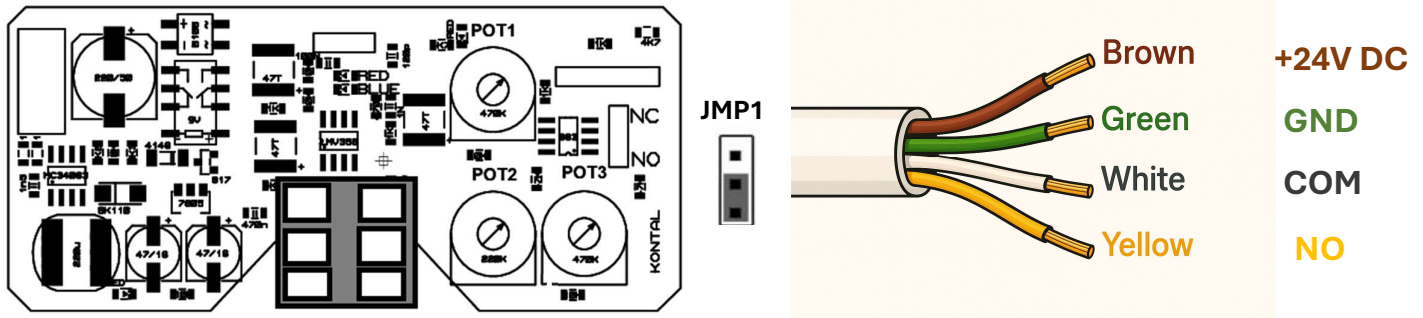


Figure 5.1 – RDR NO Connection Schema

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

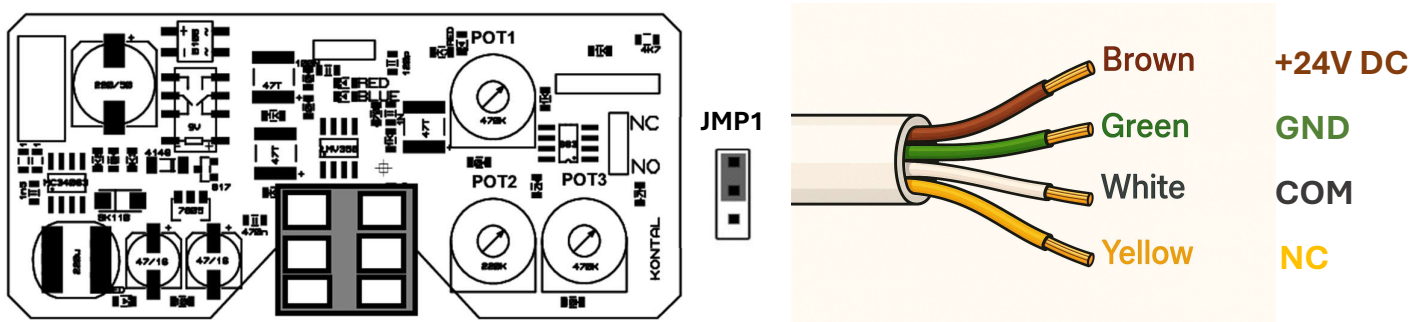


Figure 5.2 – RDR NC Connection Schema



When making the power connections of the device, please pay attention to the “+” and “-” polarities!



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



For proper and stable operation of the device, it is recommended to use a power supply with a minimum output power of 1.2W .



Do not physically touch the module while making connections and adjusting the device settings. Otherwise, deviations in the detection sensitivity may occur.

6. INSTALLATION

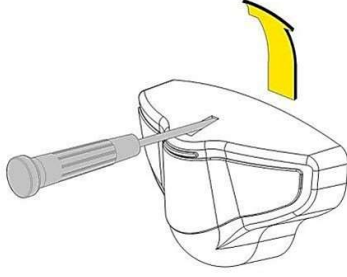


Figure 6.1 – Removal of the RDR Top Cover

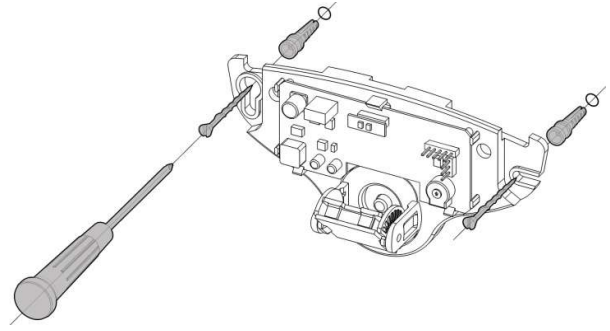


Figure 6.2 – Mounting the RD on the Wall

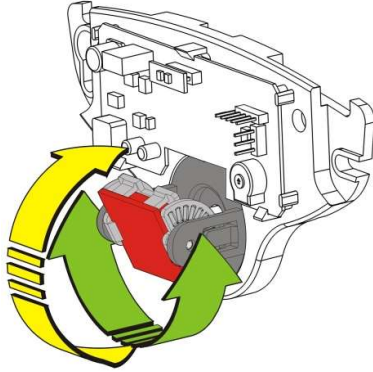


Figure 6.3 – Adjusting the Detection Angle of the RDR

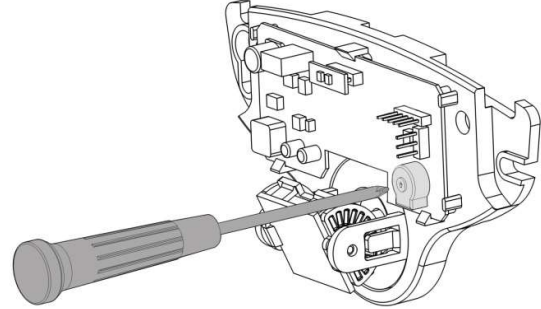


Figure 6.4 – Performing the Operating Settings of the RDR

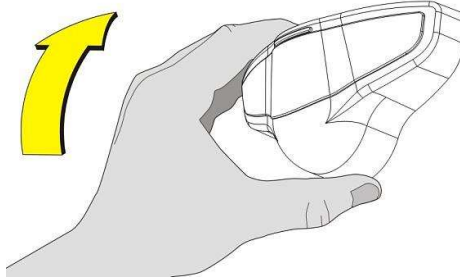


Figure 6.5 – Installing the Top Cover

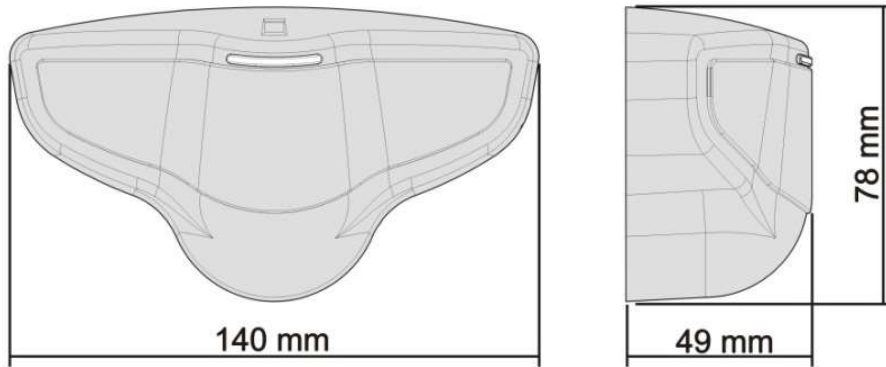


Figure 6.6 – RD2 Dimensions (in mm)



Manufacturer / Authorized Service

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