ES

No Touch Hand Sensor

KONTAL® ELEKTRONİK

CE

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

The **ES No Touch Hand Sensor** is a switching device equipped with infrared detection technology that operates contactlessly when the user's hand approaches the sensor's detection area.
Upon detection, the sensor generates a relay output, thereby triggering the connected system.
Its ability to function without physical contact makes it a safe and long-lasting solution, particularly suitable for applications where hygiene is essential.

1.1 BOX CONTENT

1x ES- No Touch Hand Sensor	**1x** ES Front Plastic Cover **1x** ES Top Enclosure Cover

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

2. TECHNICAL SPECIFICATION

Model	ES – Hand Sensor
Product Code	ES - Black : K156-01 / ES- White: K176-01
Operating Voltage	12/24V DC
Operating Current	20mA @ 24V DC
Operating (Detection) Distance	5-30cm (Adjustable)
Operating Temprature	-20 °C / +55 °C
Operating Modes	Pulse / Toggle
Contact Type	Dry Contact (NO/NC)
Contact Capacity	30V DC 1A / 125V AC 0.3 A (Max.)
Relay Hold Time	0,4ms(min) / 5sn(max.) (Adjustable)
Weight	68gr
Dimensions(W X H X D)	57,03 x 92,31 x 18,81mm

3. ADJUSTMENT COMPONENT

JMP1: This component is used to configure the operating mode and DIM setting of the product.*(See also Section 4.1)*
JMP2: This component is used to select the operating voltage of the product. *(See also Section 4.1)*
POT1: This component allows you to adjust the relay activation time or the operating mode of the product.*(See also Section 5)*
POT2: This component allows you to adjust the detection (operating) distance of the product.*(See also Section 4.1)*
LED Groups: These components allow you to monitor the current operating mode and relay status of the product.

4. HAND SENSOR CONTROL BOARD

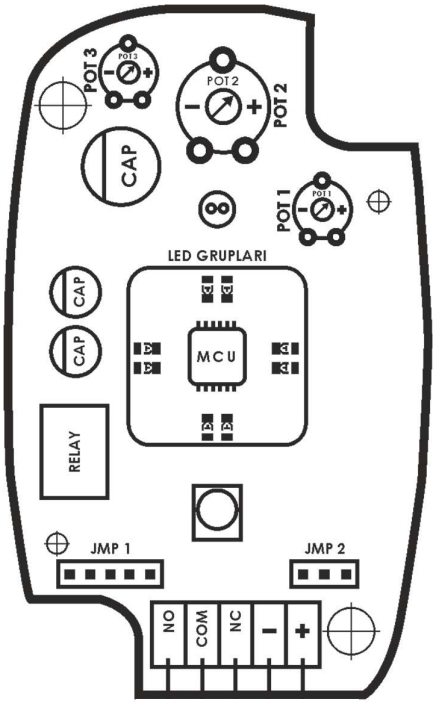


Figure 4.1 – ES Control Board

4.1 ES Initial Setup and Operation

- Remove the top cover of the device.
- Set the operating voltage of the device using JMP2.

Selection of ES 12V DC Operating Voltage

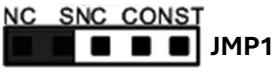
Selection of ES 24V DC Operating Voltage

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

Pay attention to the "+" and "–" polarity when making the power connections!

- Use **JMP1** to select whether the product operates in **synchronization mode** or **contact mode**.

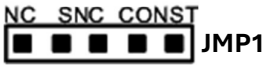
Sync Mode Jumper Setting



NC Contact Mode Jumper Selection

- Use **JMP1** to select the operating mode of your device's LED groups.

DIM Function Activated for LED Group



DIM Function Deactivated for LED Group

DIM: Soft fading animation on the LEDs.

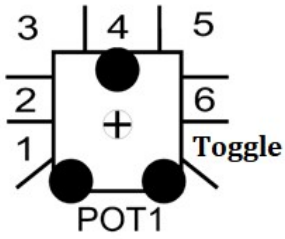
- Adjust the operating (detection) distance of the device using **POT2**.
  Turning the potentiometer clockwise will increase the detection distance, while turning it counterclockwise will decrease the detection distance.
  The maximum operating (detection) distance of the device is **30 cm**.

5. Setting the ES Operating Mode and Relay Activation Time

You can adjust the operating mode or relay activation time of your device via the **POT1** component.
If you intend to use the device in **PULSE mode**, set the relay activation time to the specified values using **POT1**.

Each time the setting is changed, the LED groups will blink once to indicate that the adjustment has been registered.
Each number corresponds to one unit of time. The relevant time values are provided in the table below.

The product will be delivered to you in the 0.4-second mode.*



Number	Relay Activation Time
1	0,4sn
2	1sn
3	2sn
4	3sn
5	4sn
6	5sn

If you wish to use your device in **TOGGLE mode**, set the **POT1** component to the **TOGGLE position**.
When the setting is adjusted to TOGGLE, the LED groups will blink rapidly to indicate the mode change.

6. CONNECTION SCHEMA

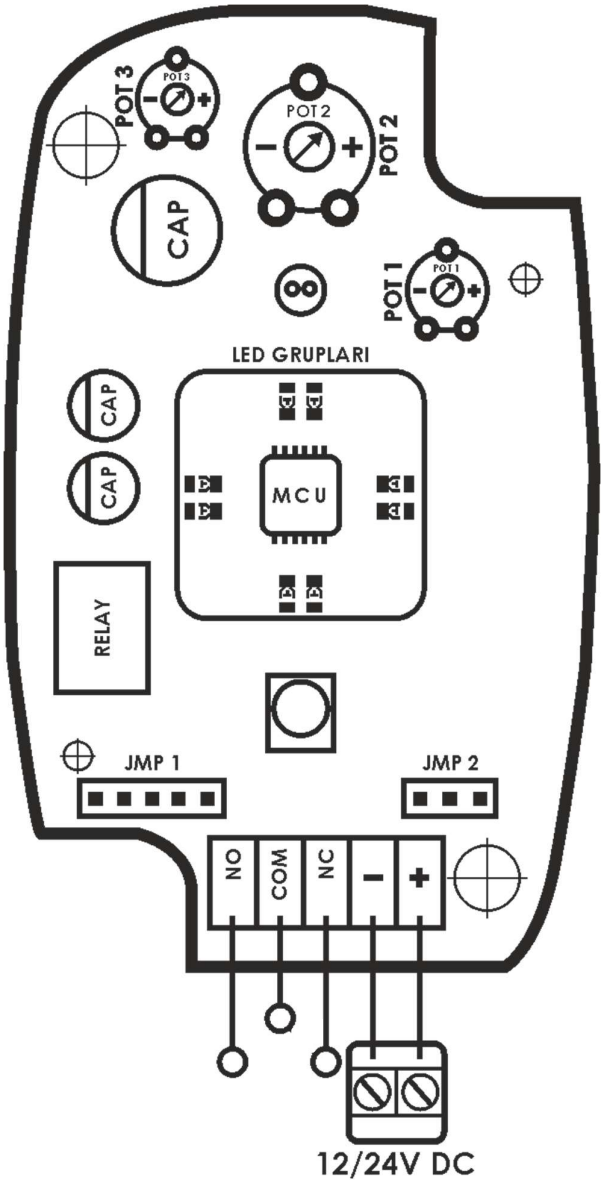


Figure 6.1 ES Connection Schema

Do not touch the connection terminals after the device has been powered!

For reliable and stable operation of the product, it is recommended to use a power supply with a minimum output power of 1.2W on the supply line.

7. MOUNTING

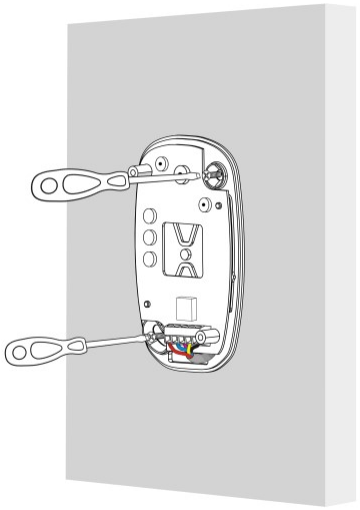


Figure 7.1 Installation of ES Sensor on the Wall

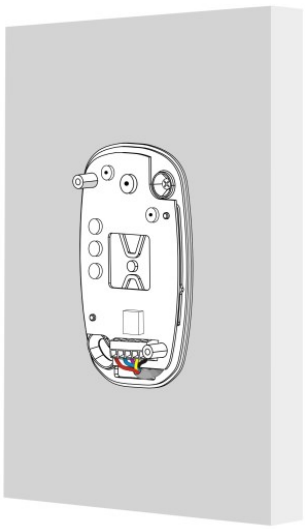


Figure 7.2 Making the ES Cable Connections

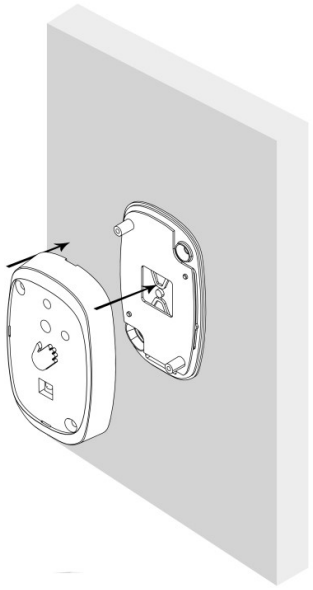


Figure 7.3 Installing the ES Top Cover

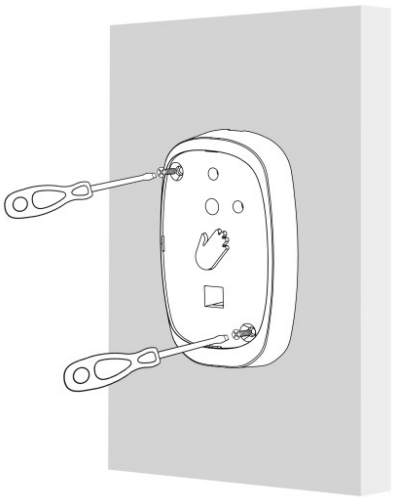


Figure 7.4 Screwing the ES Top Cover

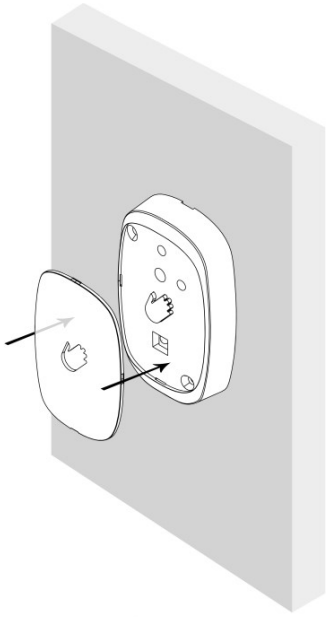


Figure 7.5 Installation of the ES Front Plastic Lens

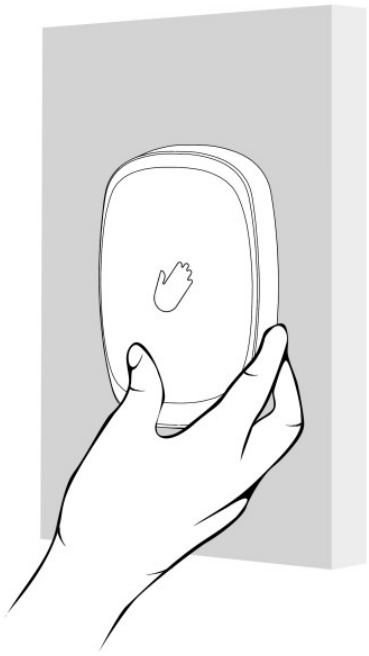


Figure 7.6 Pressing the Edges of the ES Top Plastic Lens to Secure It in Place

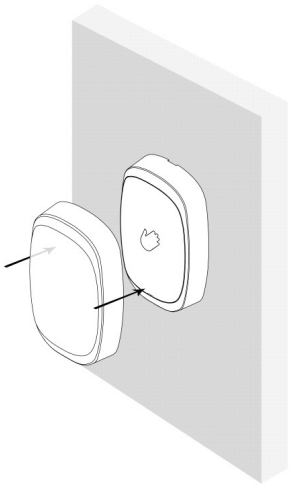


Figure 7.7 Optional Installation of the Upper Enclosure Cover

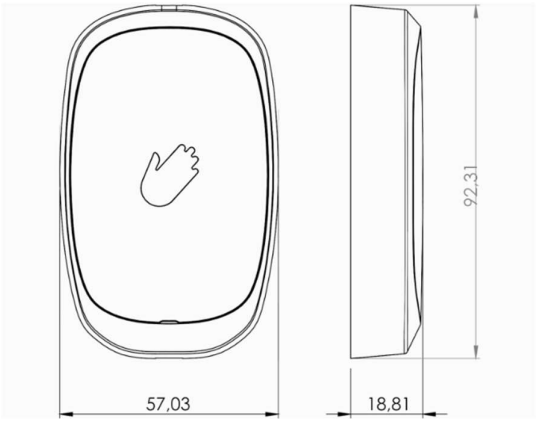


Figure 7.8 ES Dimensions (Unit: mm)

7.1 Disassembly

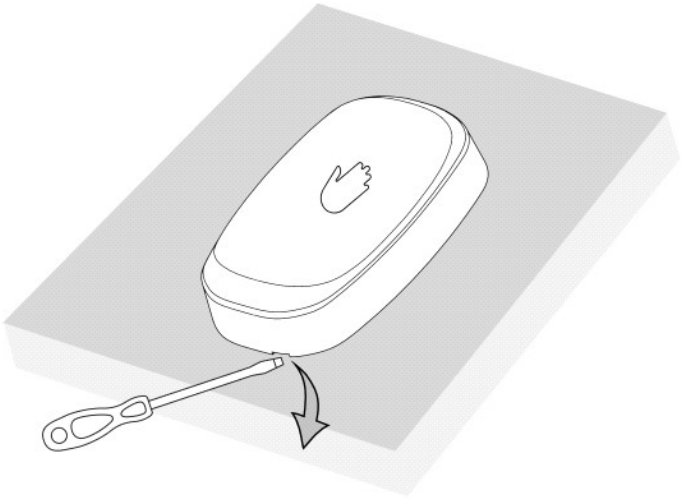


Figure 7.1.1 Removal of the ES Top Enclosure Cover

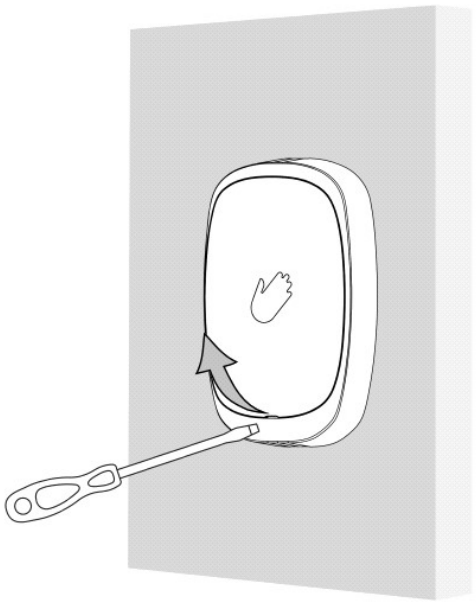


Figure 7.1.2 Removal of the ES Front Plastic Lens

Manufacturer / Authorized Service
Kontal Elektronik San. Ve Tic. Ltd. Şti.
Çorapçılar Sanayi Sitesi A Blok NO: 1-2 İkitelli OSB
İSTANBUL / **TÜRKİYE**
+90 212 485 61 11
info@kontal.com.tr
www.kontal.com