# GA-DC

## DC Motor Control Board




KONTAL

CE

Read the user manual carefully before you start using your device. Follow the listed instructions step by step, paying particular attention to the installation, electrical connection and initial start-up sections. After this stage, the product owner/user is obliged to keep this user manual in a known and accessible place throughout the 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 whose shelf life has expired are not covered.
- All service and repair operations may only be performed by the Kontal Elektronik technical service. The product must not be tampered with by any other person.
- The operating voltage of each product is indicated on its label. Do not power the product from a source other than this voltage value.



✓ Use of the product in violation of the items above may cause fire, serious personal injury, or damage to the product or the structure in which it is installed. In such user-caused cases, 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 supply terminals of the product with bare hands.

- This sign will be used for voltage-related warnings in the following sections.



- This sign on the label indicates that the supply voltage of the product 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 the collection points designated for the recycling of electronic equipment. Improper disposal or destruction of the product may have negative consequences for the environment and human health.



- This document and its relevant revision are the responsibility and legal property of KONTAL ELEKTRONİK SAN. VE TİC. LTD. ŞTİ. Unauthorized alteration or modification is prohibited.



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

# 1. DESCRIPTION

**GA-DC** General Purpose Motor Control Board is a versatile control board for industrial and residential automatic doors, rolling shutters and motorized automation systems. User-friendly parameter settings, advanced safety functions and integrated receiver support ensure full control and safe operation of your motor systems.

## 1.1 Box Contents

| | |
|---|---|
| **1x** GA-DC – Functional Motor Control Board | **1x** GA-DC User Manual<br>**1x** 17cm Internal Wire Antenna |

**For custom orders, the box contents may vary depending on the project or customer request.*

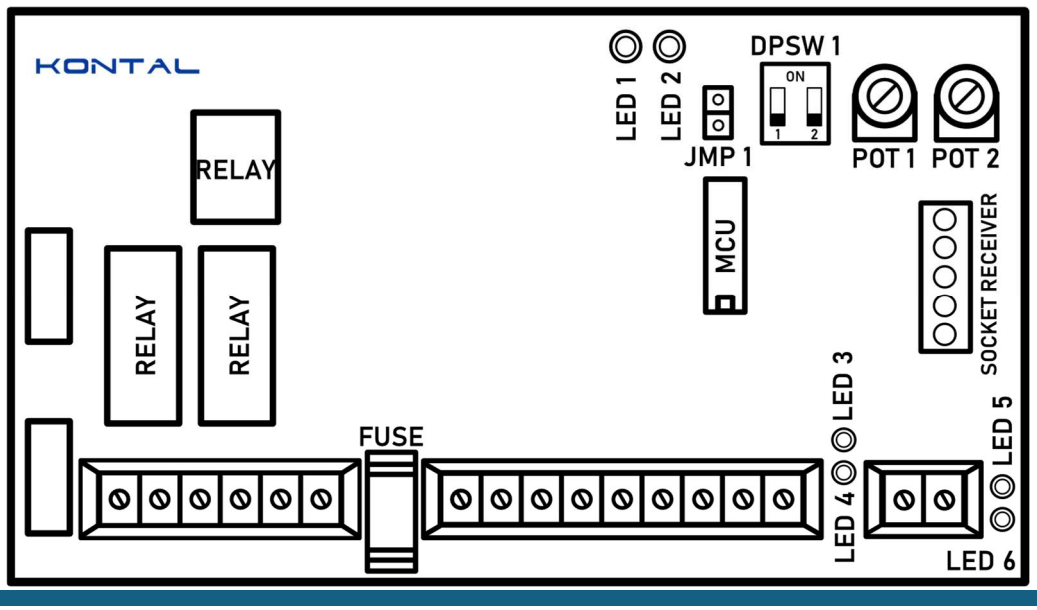
# 2. TECHNICAL SPECIFICATIONS

| | |
|---|---|
| **Model** | GADC – DC Motor Control Board |
| **Product Code** | K034-01 |
| **Operating Voltage** | 24V DC |
| **Operating Current** | 50mA @ 24V DC |
| **Operating Frequency** | 433.92MHz ***(Optional)*** |
| **Operating Temperature** | -20 ºC +55 ºC |
| **Contact Type** | 24V DC |
| **Contact Capacity** | 250V AC 10A (max.) |
| **Contact Pull-in Time** | 0.3sec(min.) / 180sec(max.) (Adjustable) |
| **Weight** | 470g |
| **Dimensions** (Width X Height X Depth) | 98.3 x 157.5 x 50mm |

# 3. GA-DC – USER ADJUSTMENT COMPONENTS

- **DPSW 1** : With this component, you can enable / disable the auto-close time feature and change the operating direction of the motor.
- **POT1** : With this component, you can adjust the auto-close time.
- **POT2** : With this component, you can adjust the contact pull-in time.

# 4. GA-DC – CONTROL BOARD

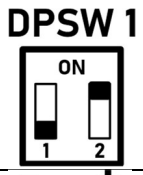


## 4.1 GA-DC – LED Status

| LED | ON | OFF |
|---|---|---|
| LED 1 | 24V supply voltage active | Fuse or transformer blown. |
| LED 2 | 5V Active | |
| LED 3 | Button is pressed | Button is not pressed |
| LED 4 | Photocell Contact Inactive (**No Obstacle** Detected) | Photocell Contact Active (**Obstacle Detected**) |
| LED 5 | Limit Switch 1 active | Limit Switch 1 inactive |
| LED 6 | Limit Switch 2 active | Limit Switch 2 inactive |

## 4.2 GA-DC – Auto-Close Time Adjustment

**Step 1** : Set DIP switch no. 2 to the **ON** position as shown in the figure.




**Step 2 :** You can set the auto-close time of the product using POT1. Turning POT1 clockwise increases the auto-close time; turning it counterclockwise decreases it. The auto-close time can be set to a minimum of **5 seconds** and a maximum of **80 seconds**.




## 4.3 GA-DC – Contact Pull-in Time Adjustment

**Step 1 :** You can set the contact pull-in time of the product using POT2. Turning POT2 clockwise increases the contact pull-in time; turning it counterclockwise decreases it. The contact pull-in time can be set to a minimum of **0.3 seconds** and a maximum of **180 seconds**.




## 4.4 GA-DC – Motor Direction Reversal

If the motor cables are connected incorrectly, this feature reverses the operating direction of the system without rewiring. To enable it, set DIP switch no. 1 to the ON position.

**Note** : If the door stops and closes when the photocells are obstructed during opening, change the position of DIP switch no. 1.

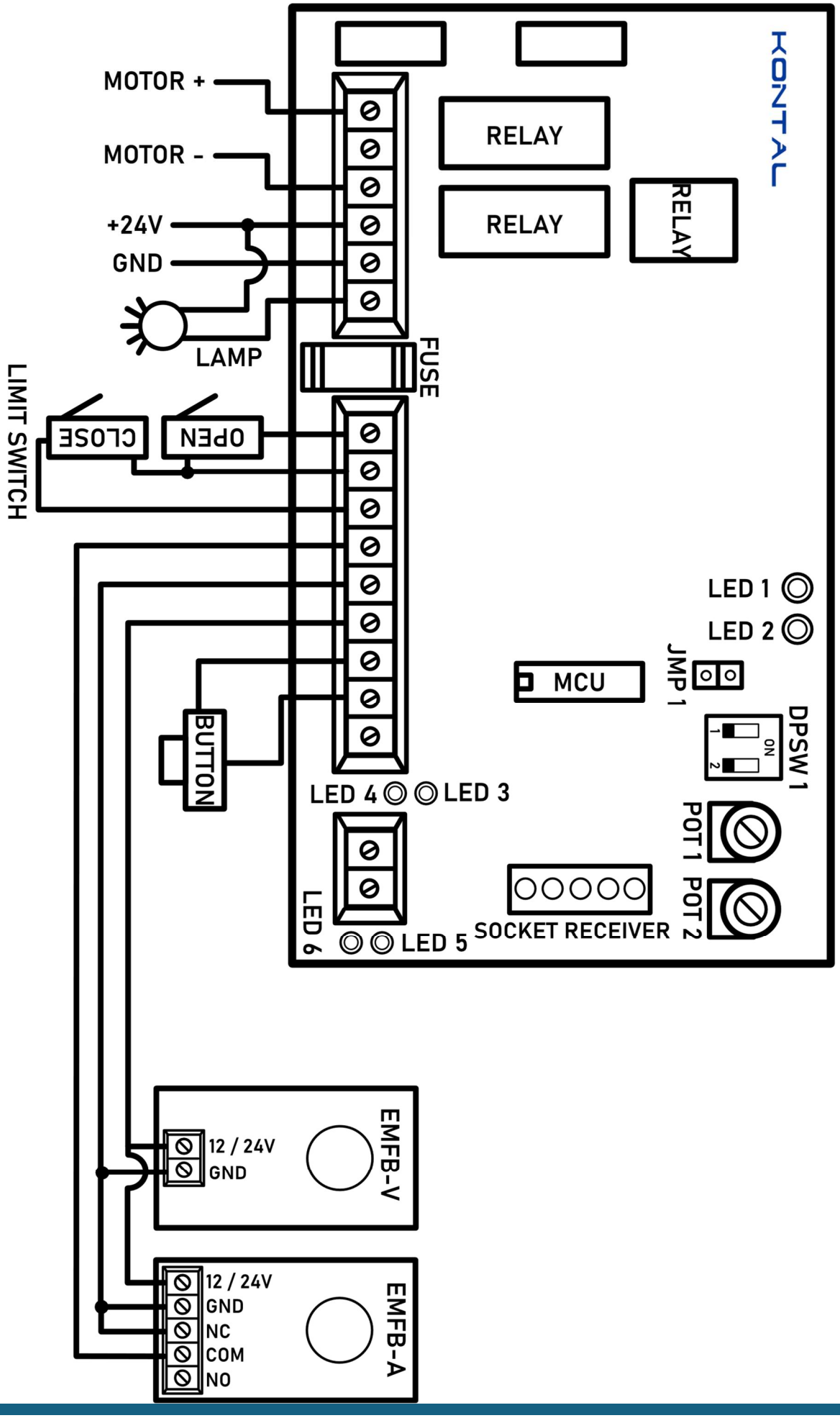


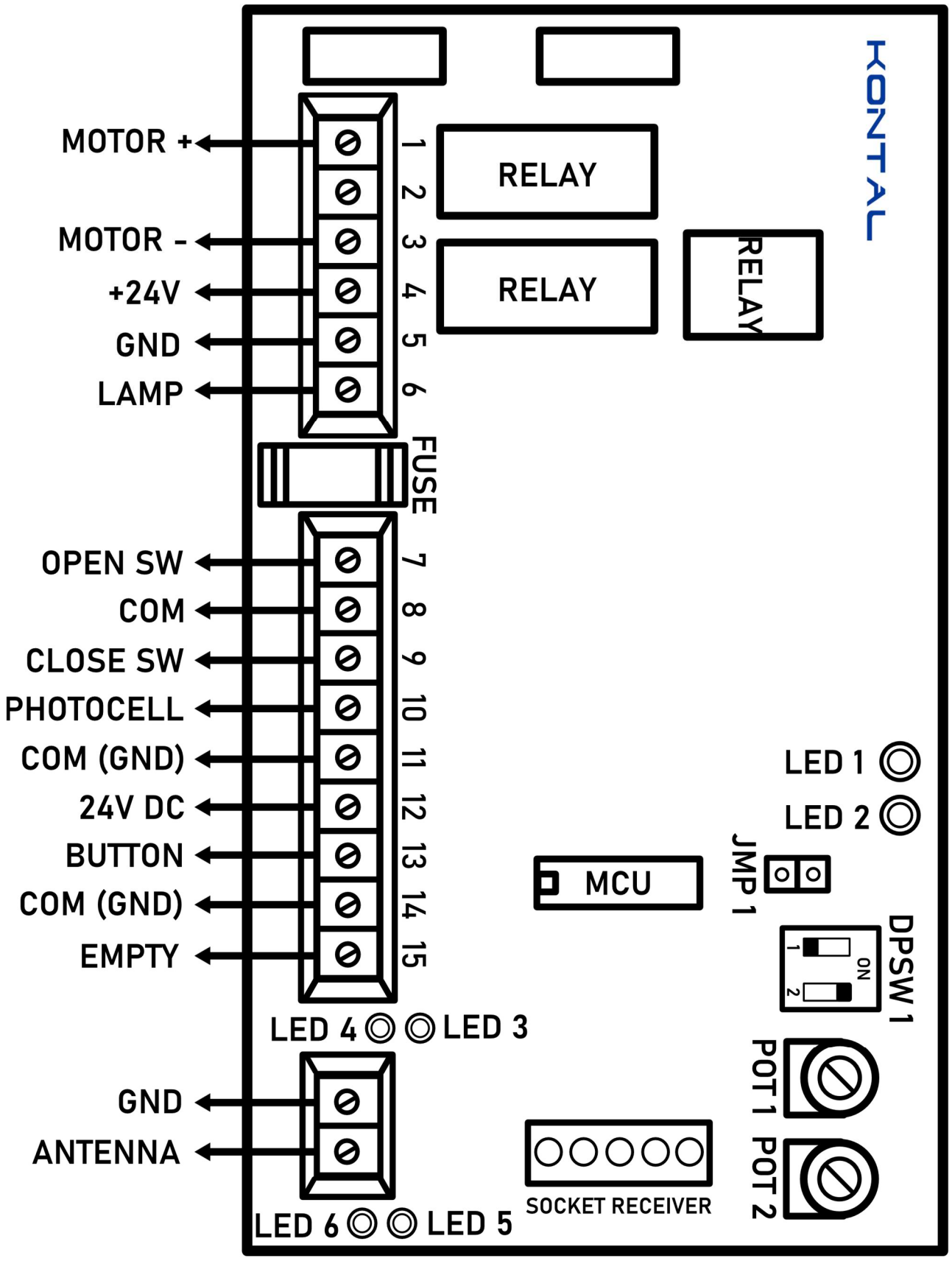

## 4.5 GA-DC – Jumper Status

**JMP1 Active :** If an obstacle enters between the photocells while the motor is closing, the door stops and automatically moves in the opening direction.

**JMP1 Inactive :** If an obstacle enters the photocell detection area while the motor is closing, the door stops. When the obstacle leaves the area, the door resumes closing from the point where it stopped.

# 5. GA-DC – WIRING DIAGRAM






**Always disconnect the power to the device before making electrical connections. Otherwise, electric shock or device failure may occur.**

**Never touch the connection points after the power connections of the product have been made!**

**The photocell and stop button have an NC (Normally Closed) configuration. Disconnect the power before making any wiring changes. Otherwise, the device may malfunction.**

On the Optima model, terminals 13 and 14 must be used as the open button, terminals 10 and 11 as the close button, and terminal 15 as the photocell contact.

# 6. INSTALLATION

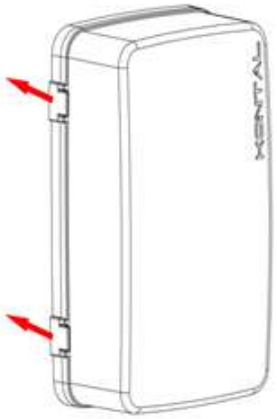



Figure 6.1 GA-DC top cover removal

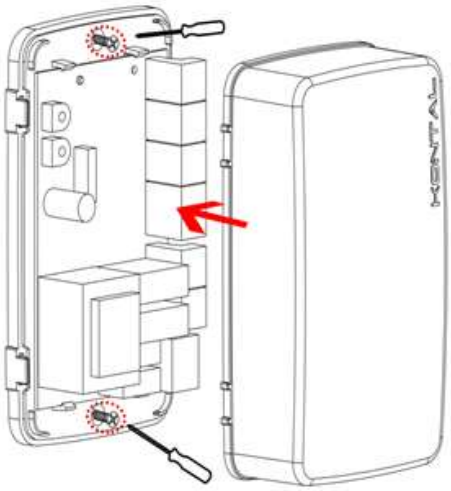
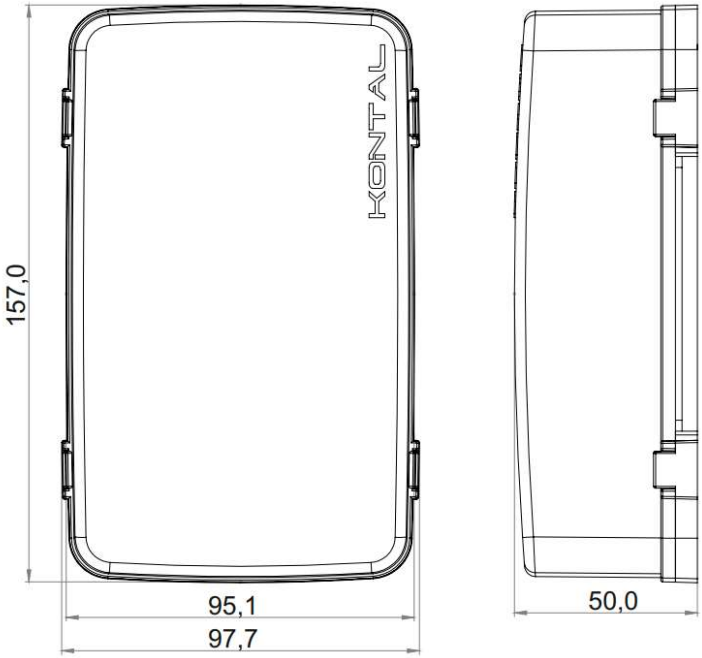



Figure 6.2 GA-DC surface mounting

Figure 6.3 GA-DC dimensions in mm




KONTAL

CE

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