



Technical Data

Dimensions:
Fingerprint Sensor:

Operating Voltage:
Power consumption:
Relay:
Operating Temperature:
Storage Temperature:
Humidity:
IP Class:
ESD Performance:
Speicherkapazität:
Fingerprint Enrollment (Time):
Fingerprint Matching (Time):
False Rejection Rate (FRR):
False Acceptance Rate (FAR):
Declaration of Conformity (CE):
Guarantee

80,5x80,5x30 mm
ATMEL Fingerchip™, Swipe Sensor without Latentfinger
> 2 Mio. Usings
8 ~ 24V DC
about 1 W
24V DC 500 mA (max)
-20 ~ +85 °C
-25 ~ +85 °C
< 95 % relative humidity
IP56 (Outdoor)
16kV
< 150 Fingerprints
about 1 sec
about 10 msec/Matching
about 0,5%
0,00001~0,000001 (by FRR 0,5%)
after EU-Guideline 2002/95/EG
24 Months

Installation of external and internal unit:

- ✓ Connect the external unit to the internal unit as shown on the scheme below.
- ✓ Device is in its delivery status – red, green and blue LED are glowing permanent.

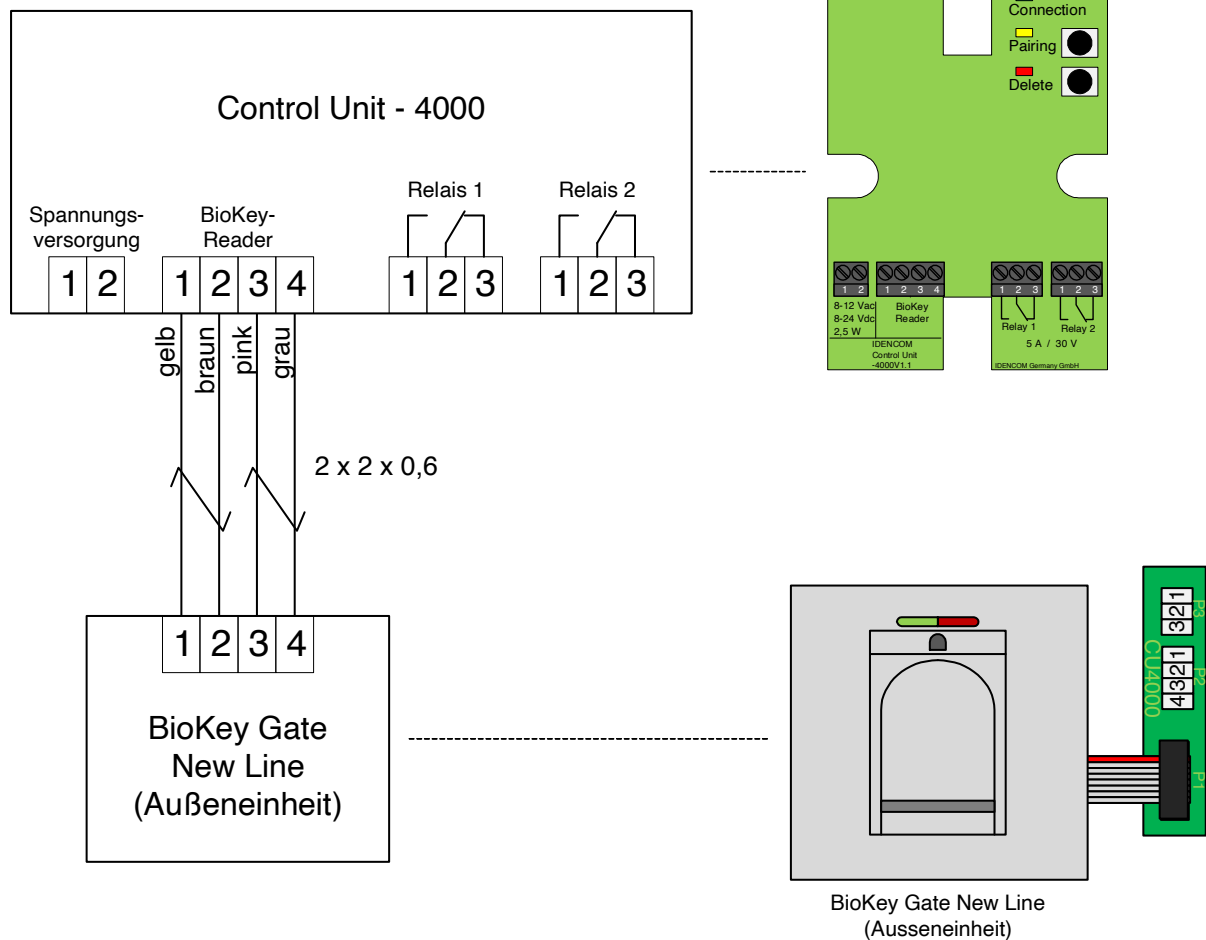
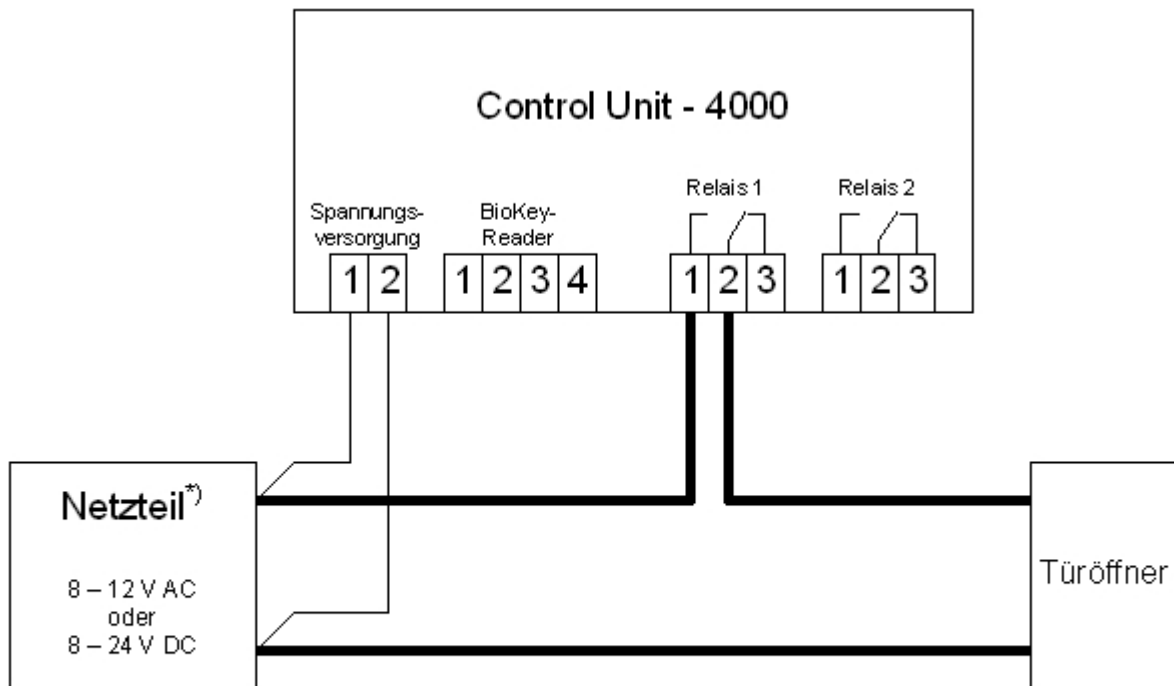


Abb. 1 Cabling

Important Information: Flex Cabel with Red Line muss be like Abb. 1 (above)



*) Elektrische Mindestleistung, Netzteil:
2 W für das BioKey New Line **plus** die Leistung, die der Türöffner benötigt.

Türöffner = E Opener, Netzteil = Power Supply (8~12 V AC or 8~24 V DC)

Abb. 2 Cabling: BioKey + E Opener

„Connection“ – LED: blink every 5 sec = the Connection between BioKey Reader and Contro Unit is Okay.

„Pairing“ – LED: glow= Pairing muss be done -> Push the Pairing button for 5 sec.

„Delete“ – for delete all the Finger (incl. Masterfinger) -> Push the Delete button for 5 sec.

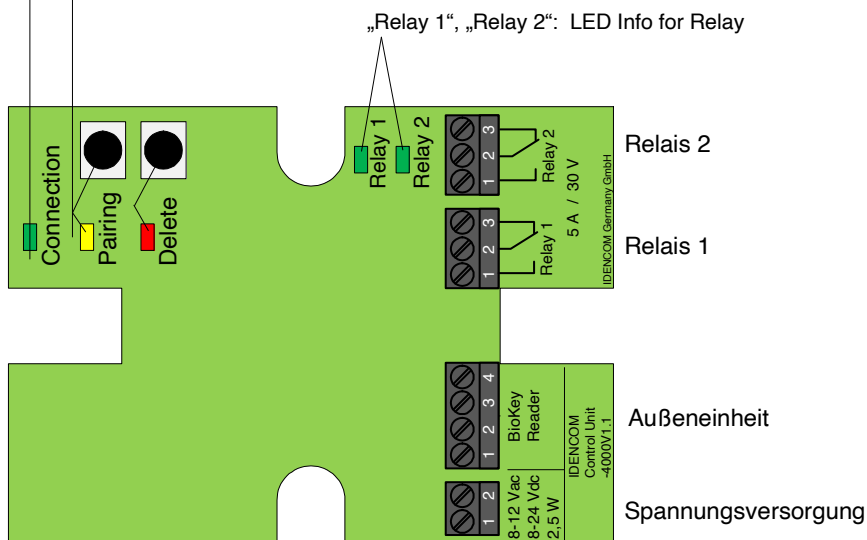


Abb. 3 Control Unit 4000 (Interior)

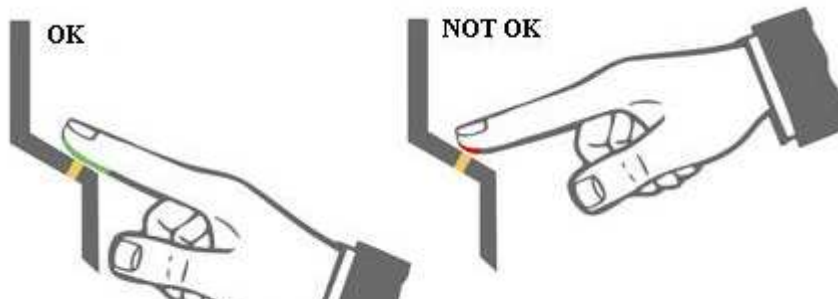
Operation:

I. Overview (M = Masterfinger)

Operation	Explanation	Approach
Enroll Masterfinger	Provide 3 Masterfingers that are used for management of the terminal	Initial state (Red, Green and Blue LEDs ON) → Enroll 3 x Masterfinger
Acquire Userfinger	Userfingers are used to open the door	M → Scan Userfinger (N times) → M
Open Door		Scan Userfinger
Delete all fingers (reset)	Reset device to initial state	Activate reset switch → Waiting for 30s → Initial State (Red, Green and Blue LEDs ON)
Unlock terminal	Leave lock mode and return to normal operation mode	Provide a valid finger (User or Master) twice

Please notice:

1. The Blue LED indicates that the device is powered on and glows permanently
2. After scanning one finger over the sensor it is necessary to wait (~3s) for the process to finish before the next finger is used
3. **NEVER use a Masterfinger as a Userfinger!**
4. Some useful hints for getting better fingerprint when scanning the finger over the sensor:
 - Slide your finger with a constant speed and slightly pressure over the sensor
 - The area of the finger that contacts with the line sensor should be as large as possible. (Refer to the figure below).



DESIGN PLUS
powered by: light+building



II. Detailed description

1. Masterfinger enrollment

- ✓ After activating the device for the first time or after recovering the delivery status, first of all **3 masterfingers** have to be enrolled (**same** or different fingers are possible)
 - For enrollment the finger has to be pulled over the sensor field
 - The fingerprint is stored automatically, the red and green LED are going out shortly to confirm the storage process
 - If 3 masterfingers are enrolled properly, the red and green LED are going out one after another

2. Enrollment of new users

- ✓ The enrollment mode for new users has to be activated by reading in a **masterfinger** (red and green LED are glowing shortly)
- ✓ **Enroll as many fingers as you like.** If enrollment was successful the green LED is glowing, if quality was not sufficient the red LED is glowing.
- ✓ The enrollment mode has to be closed by reading in the **masterfinger again** (red and green LED are glowing shortly).
 - If enrollment is not closed within 10 sec. after last enrollment of a user, the process will be quit without storing the last fingerprint.
 - It is recommended to enroll every Userfinger **three times** for optimising the recognition rates. If fingers are „difficult“ (e.g. fingers from small children or with very dry skin), it could be necessary to enroll this finger up to **6 times** or to use other fingers as Userfingers.

3. Open the door

- ✓ Swipe an Userfinger over the sensor.
 - The finger is recognized -> the green LED is glowing and the relay is connected
 - The finger is refused -> the red LED is glowing.

4. Delete all fingers (incl. masterfinger)

- ✓ Press the “Delete” Taster for 3 sec.
- ✓ Waiting for **for approx. 30 sec.** -> Initial State (Red, Green and Blue LED ON)
 - The device is in its delivery status again – the red, green and blue LED are glowing permanent.
 - Another possibility to delete all fingers is to read in the masterfinger 3 times – after the green and red LED are glowing shortly, the green LED is glowing permanent until deletion is finished.

5. Lock mode

- ✓ **Blocking:** If a finger which is not enrolled is pulled over the sensor 5 times (red LED is glowing), the module is switching to lock mode. This is to avoid that unauthorised people have the possibility to try undisturbed for any length of time to get access.
 - Switched to lock mode, the red LED is blinking. In the first instance the lock mode is temporary but will last longer with every further unsuccessful attempt. (Lock intervals: 1 minute, 5 minutes, 30 minutes, 1 hour, durable).
- ✓ **Unblocking:** Lock mode could be aborted by pulling an enrolled finger 2 times over the sensor (master or Userfinger).