sygonix®

CE

RFID/fingerprint access system
Item no. 2380476

Intended use

This product is designed to prevent unauthorised access to doors (e.g. in an office) and to activate/disable alarm systems. Control can be exercised via suitable transponders or fingerprints.

Holding a paired user transponder in front of the reading surface or placing a stored finger on the fingerprint sensor activates a potential-free relay changeover contact (see contact rating under "Technical data"). This can be used, for example, to control a door opener or an alarm system.

The product is intended for vertical installation on a wall and is suitable for indoor and outdoor use (IP 66).

For safety and approval purposes, do not rebuild and/or modify this product. Using the product for purposes other than those described above may damage the product. In addition, improper use can cause hazards such as a short circuit, fire or electric shock. Read the operating instructions carefully and store them in a safe place. Only make this product available to third parties together with its operating instructions.

This product complies with statutory, national and European regulations. All company and product names contained herein are trademarks of their respective owners. All rights reserved.

Delivery content

- RFID/fingerprint module
- Fasteners (2x special screws with matching L-key, 4x screw head stickers, mounting frame with 2x screws and 2x dowels)
- Master transponder
- 1N4004 diode (for relay changeover contact)
- Operating instructions

Up-to-date operating instructions

Download the latest operating instructions at www.conrad.com/downloads or scan the QR code shown. Follow the instructions on the website.

Description of symbols

⚠️ The symbol with an exclamation mark in a triangle is used to highlight important information in these operating instructions. Always read this information carefully.

➡️ The arrow symbol indicates special information and tips on how to use the product.

Safety information

⚠️ **Read the operating instructions carefully and observe in particular the safety instructions. If you do not follow the safety information and information on proper handling in these operating instructions, we will assume no liability for any resulting personal injury or damage to property. Such cases will invalidate the warranty/guarantee.**

- This product is not a toy. Keep it out of the reach of children and pets.
- Protect the product from extreme temperatures, impacts, flammable gases, vapours and solvents.
- Handle the product carefully. Jolts, impacts or a fall even from a low height may damage the product. Do not place the product under any mechanical stress.
- Do not mount or connect the product when it is connected to a power supply.
- Never exceed the contact rating for the potential-free changeover contact specified in chapter "Technical data". Never switch the mains voltage, as this can cause life-threatening electric shock!
- Always observe the safety and operating instructions of any other devices which are connected to the product (e.g. door openers and alarm systems).
- If it is no longer possible to operate the product safely, stop using it and prevent unauthorised use. Safe operation of the appliance can no longer be guaranteed if it shows visible signs of damage, malfunctions, has been exposed to unfavourable storage conditions or significant transport loads.
- For installations in industrial facilities, follow the accident prevention regulations for electrical systems and equipment issued by the national safety organisation or the corresponding national authority.
- Do not leave packaging material lying around carelessly. It may become a dangerous toy for children!
- Maintenance, modifications and repairs must be carried out by a technician or a specialist repair centre.
- If you are not sure how to operate the product correctly, or if you have any questions that are not answered in these operating instructions, contact us or another specialist.

Connections and controls

1. Opening for wall mounting
2. LED
3. RFID/fingerprint sensor with LED ring
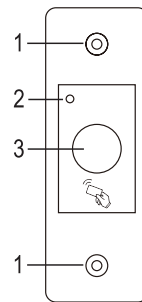
Connecting cable:

Colour	Inscription	Function
Red	9 - 24 V/DC	Operating voltage 9 - 24 V/DC
Black	GND	GND/ground
Yellow	OPEN	Door opener button
Green	NC	NC (normally closed) contact of relay
Brown	COM	COM (centre contact) contact of relay
White	NO	NO (normally open) contact of relay

Installation and connection

Use suitable screws and, if necessary, dowels to mount the mounting plate with the module on the wall (see figure on the right) depending on the type of wall.

The included mounting frame can be pre-installed depending on the substrate and installation position, and the access system should then be screwed tight. Suitable screws and, if necessary, dowels should be used depending on the substrate.

A hole for the connecting cable must be drilled before fastening.

⚠️ Ensure that no cables or wires are damaged when drilling holes or tightening screws.

Wiring should be carried out according to the following examples.

➡️ Ensure that there is suitable insulation (e.g. heat shrink tubing).

A protective diode is included for connecting a door opener. It protects the electronics from damage caused by voltage surges. Ensure the correct polarity, as shown in the following connection examples (when connected, the ring on the protective diode must face the positive pole/+).

⚠️ **Attention!**
Never switch the mains voltage via the potential-free changeover contact! There is a risk of fatal electric shock! Observe the permissible contact rating; see "Technical data" chapter.

➡️ Use suitable cables with different colours. Note the colours and store this information together with these instructions. When connecting the cables, pay attention to the correct polarity (plus/+ and minus/-).

Connection to conventional voltage/power supply:

When a conventional power supply unit should be used, observe the wiring diagram on the right.

A) "Fail Secure" door opener: Releases the locking latch only when its operating voltage is applied (common design for front doors).

B) "Fail-safe" door opener: releases the locking latch only when the operating voltage is missing (uncommon design, e.g. used for escape route doors, which can be opened in the event of a power outage).

1. Access system
2. Door opener button
3. Power adapter
4. "Fail-Secure" door openers
5. "Fail-Safe" door openers

The included diode must be connected correctly near the door opener to protect the access system from voltage surges.

Connecting to alarm system

Observe the operating instructions for the alarm system used. The access system relay switches when a valid transponder is recognised or when a stored finger is placed on the sensor. The alarm system can thus be enabled or disabled.

Operation

Switch on the operating voltage after installation and connection. The access system LED lights up red. This indicates that the access system is in standby mode. You can now start programming, see next chapter.
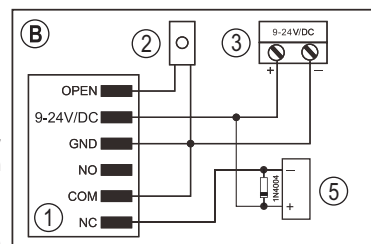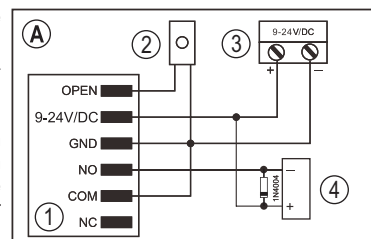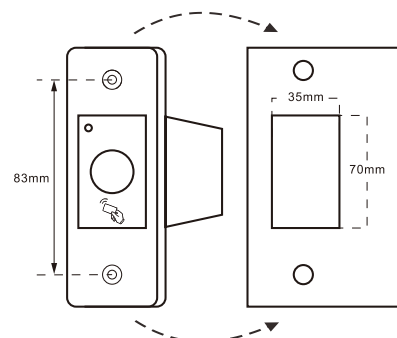
Programming

The included transponder is normally paired as a master transponder and can be used to pair/save or delete user transponders and user fingerprints.

In the section below you will find instructions on how to pair a master fingerprint.

a) Pairing a new master transponder and/or master fingerprint

→ A new master transponder can be paired if the currently used master transponder is lost or defective. There can be only one master transponder for security reasons (if a lost master transponder "shows up", it will no longer be recognised).

You can save a master fingerprint or a master transponder or both.

• Switch off the power supply and wait until the LED goes off.

• Press and hold down the door opener button and switch on the power supply. You will hear a beep (the LED briefly flashes red and green) and then the LED lights up red. Now release the door opener button. You will hear another beep and the LED lights up yellow.

→ If you hear two beeps, you have waited too long. Switch off the power supply and start over.

• To save a master fingerprint, place the same finger three times on the sensor. As your finger touches the sensor, an LED ring around the sensor lights up blue. The LED ring lights up green and you will hear a beep when the fingerprint has been correctly recognised.

→ If the fingerprint cannot be read correctly, you will hear three beeps and the LED ring will flash red. The same applies if you attempt to use a stored fingerprint as the new master fingerprint.

• To save a new transponder as a master transponder, hold the transponder in front of the sensor until you hear a beep. The new master card is saved.

• Once the master fingerprint and the master transponder have been saved, the programming mode is exited and the LED lights up red. When only one of the two types of access is used, wait a few seconds until the programming mode is automatically exited and the LED lights up red.

b) Saving a user transponder/fingerprint

• Hold the master transponder once in front of the sensor or place the master finger once on the fingerprint sensor. You will hear a beep and the LED lights up yellow. The pairing mode is enabled.

• Now pair a single user transponder or several user transponders one after another. You will hear a beep once every single user transponder is paired.

→ If a newly paired transponder is used, you will hear three beeps and the LED flashes red.

• To pair a user fingerprint, place the same finger three times in succession on the fingerprint sensor. As your finger touches the sensor, an LED ring around the sensor lights up blue. The LED ring lights up green and you will hear a beep when the fingerprint has been correctly recognised.

→ If the fingerprint cannot be read correctly, you will hear three beeps and the LED ring will flash red. The same applies if you attempt to read a stored fingerprint.

• Hold the master transponder once in front of the sensor or place the master finger once on the fingerprint sensor. You will hear a beep and the LED lights up red. The pairing mode is disabled.

→ If no transponder or fingerprint is paired within 10 seconds, the pairing mode is automatically exited.

c) Deleting the user transponder

• Hold the master transponder twice in front of the sensor or place the master finger twice on the fingerprint sensor. Each time you hold it you will hear a beep and the LED lights up yellow. The delete mode is enabled.

• Hold the user transponder (or several user transponders one after another) you want to delete in front of the sensor. You will hear a beep once every single user transponder is deleted.

→ If a newly deleted transponder is used, you will hear three beeps and the LED flashes red.

• To delete a user fingerprint, place your finger on the fingerprint sensor. As your finger touches the sensor, an LED ring around the sensor lights up blue. The LED ring lights up green and you will hear a beep when the fingerprint has been deleted.

• Hold the master transponder once in front of the sensor or place the master finger once on the fingerprint sensor. You will hear a beep and the LED lights up red. The delete mode is disabled.

→ If no transponder or fingerprint is deleted within 10 seconds, the delete mode is automatically exited.

d) Setting relay switching time

→ By default, the relay is activated for 5 seconds when a paired user transponder/fingerprint is read. This time can be adjusted from 1 to 99 seconds and toggle mode (relay switches upon each reading) can be selected.

• Switch off the power supply and wait until the LED goes off.

• Press and hold down the door opener button and switch on the power supply. As you hold down the button, you will hear a beep. You should release the door opener button after two beeps. You will then hear a long beep and the LED lights up yellow; the relay setting mode is enabled.

→ If you do not perform any further actions within 10 seconds, you will hear three beeps and the LED flashes red. The relay setting mode is disabled automatically.

Switching to toggle mode

• Keep the door opener button pressed until you hear three beeps. Now release the door opener button. The relay setting mode is now disabled.

• When a paired user transponder/fingerprint is read, the relay switches and remains in current switch position until another user transponder/fingerprint is read.

Setting the relay switching time

• Keep the door opener button pressed until you hear three beeps. As you hold down the button, you will hear a beep every second. The relay is activated for one second with a beep (time can be adjusted from 1 to 99 seconds).

• Release the door opener button when the required time has been reached (for example, if you release it after 8 beeps, the relay will be activated for 8 seconds when a paired user transponder/fingerprint is read). The relay setting mode is now disabled.

e) Resetting to factory defaults

• Switch off the power supply and wait until the LED goes off.

• Press and hold down the door opener button and switch on the power supply. As you hold down the button, you will hear a beep. After a while, you will hear two beeps followed by another three beeps. Now release the door opener button: the LED lights up yellow.

• Now press and hold down the door opener button for 10 seconds until you hear a long beep: the LED briefly lights up green and red. The access system is now reset to factory defaults. All stored data (transponders/fingerprints) are deleted and the relay switching time is reset to 5 seconds.

→ You must first pair a new master transponder and/or master fingerprint before you can save user transponders/fingerprints.

Care and cleaning

Never use aggressive detergents, rubbing alcohol or other chemical solutions, as these may damage the casing or cause the product to malfunction.

Use a dry, lint-free cloth to clean the product.

Disposal

Electronic devices are recyclable waste and must not be placed in household waste. At the end of its service life, dispose of the product in accordance with applicable regulatory guidelines. You thus fulfil your statutory obligations and contribute to environmental protection.

Declaration of Conformity (DOC)

Conrad Electronic SE, Klaus-Conrad-Straße 1, D-92240 Hirschau, hereby declares that this product conforms to Directive 2014/53/EU.

→ Click on the following link to read the full text of the EU Declaration of Conformity:

www.conrad.com/downloads

Enter the product's order number in the search field; you can then download the EU Declaration of Conformity in the available languages.

Specifications

Operating voltage	9 - 24 V/DC
Power consumption	Standby <25 mA; max. 100 mA
Transmission frequency range	124.6 - 125.4 kHz
Transmission power	11.62 dBm
Max. reading distance	approx. 2 cm
Data retention in case of a power cut	yes
Suitable transponders	Commercially available EM transponders for frequency 125 kHz
Output	Potential-free single-pole changeover contact (relay)
	Max. contact rating 24 V/DC, 2 A
	Adjustable switching duration (1 - 99 seconds or toggle mode; 5 seconds by default)
Transponder storage	3000
Transponder storage	100
Mounting location	Indoors/outdoors
Protection class	IP66
Ambient conditions	Temperature -40 °C to +60 °C
Dimensions	115 x 40 x 25 mm (H x W x D)
Weight	approx. 105 g