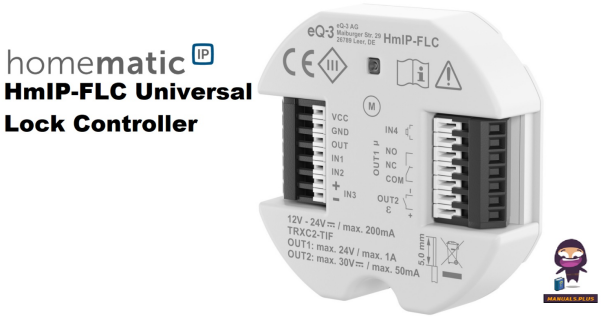

homematic IP HmIP-FLC Universal Lock Controller Instruction Manual

Contents

homematic IP

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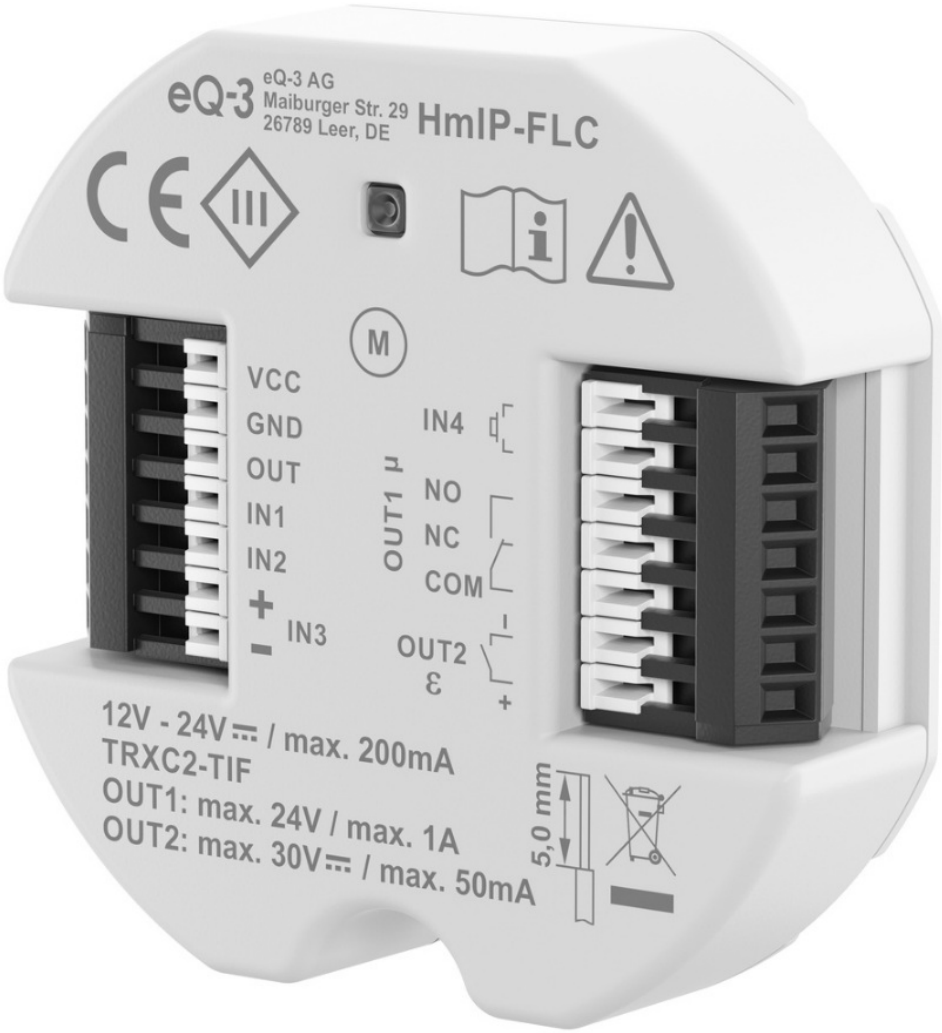

Package contents

- 1x Universal Lock Controller
- 1x Operating manual
- 2 Information about this manual

Please read this manual carefully before operating your Homematic IP components. Keep the manual so you can refer to it at a later date if you need to. If you hand over the device to other persons for use, please hand over this manual as well.

Symbols used
Important! This indicates a hazard.
Note. This section contains important additional information!

Hazard information
Do not open the device. It does not contain any parts that need to be maintained by the user. In the event of an error, please have the device checked by an expert.
For safety and licensing reasons (CE), unauthorized changes and/ or modifications of the device are not permitted. The device may only be operated in a dry and dust-free environment and must be protected from the effects of moisture, vibrations, solar, or other methods of heat radiation, cold, and mechanical loads.

The device is not a toy: do not allow children to play with it. Do not leave packaging material lying around. Plastic films, plastic bags, pieces of polystyrene, etc., can be dangerous in the hands of a child. We accept no liability for damage to property or personal injury
caused by improper use or the failure to observe the hazard warnings. In such cases, all warranty claims are void.

We accept no liability for any consequential damage. The device is only suitable for use in residential environments. Using the device for any purpose
other than that described in this operating manual does not fall within the scope of intended use and will invalidate any warranty or liability.

Function and device overview

The Homematic IP Universal Lock
The controller is a device for controlling a motorized lock and is used in installations with permanently installed motorized lock drives in (house) entrance doors. To use the HmIP-FLC, the motorized lock must have a manufacturer-specific control unit that monitors all relevant technical parameters of the motorized lock. The HmIP-FLC is controlled via four inputs that can be used for different purposes.

The door status (open/closed or locked/unlocked) can be detected and switched between day/night mode using a button or switch. It is also possible to output an opening pulse at the touch of a button. There are two switching outputs for activating the motorized lock. The changeover contact is used to switch between day/night mode. The open collector output sends the switching pulse to the motorized lock.

Device overview

- (A) System button (pairing button/LED)
- (B) Power supply 12 – 24 VDC
- (C) Output terminals 12 – 24 VDC
- (D) Input terminals of contact interface 12 – 24 VDC
- (E) Input terminals of door opener 6 – 24 VAC/DC
- (F) Input terminals of day/night switch
- (G) Output terminals of changeover contact
- (H) Output terminals of the open collector.

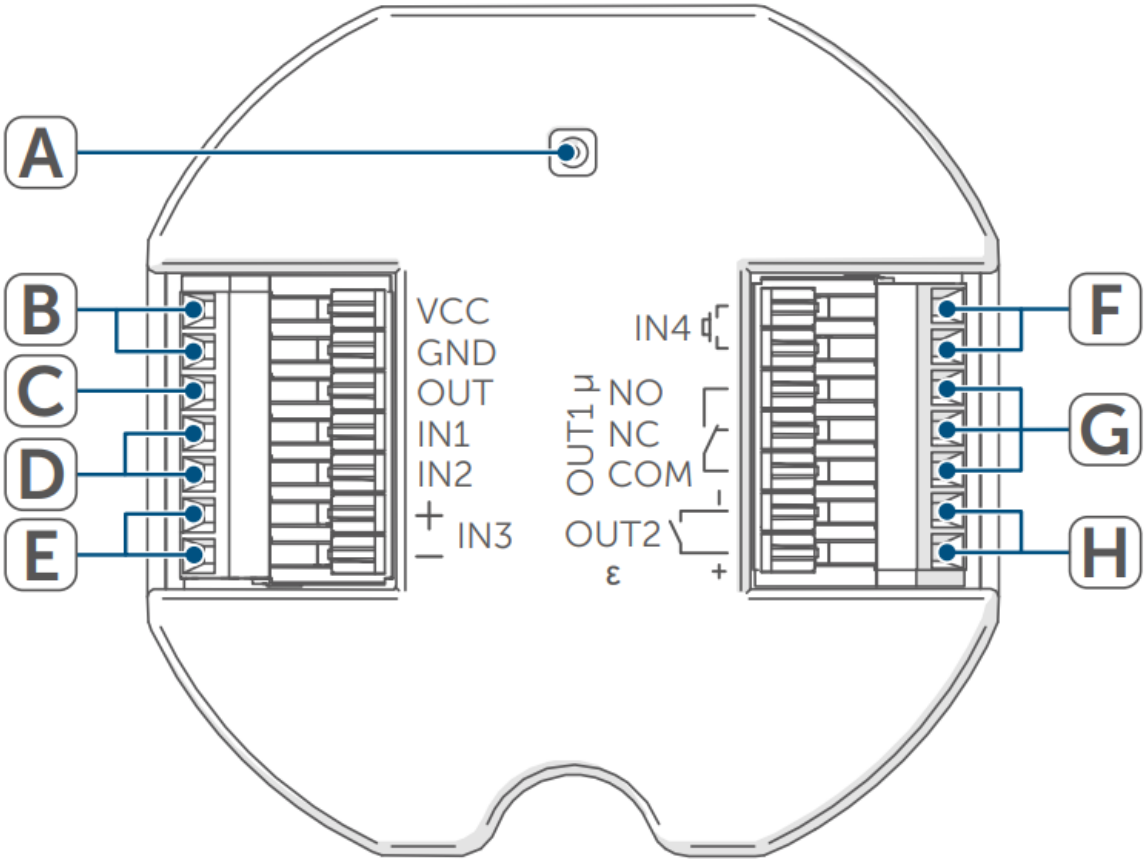

Figure 1

General system information
This device is part of the Homematic IP. Smart Home system and communicates via the Homematic IP wireless protocol. All devices in the Homematicsystemm can be configured easily and individually with a smartphone using the Homematic IP app. The functions provided by the system in combination with other components are described in the Homematic IP User Guide. All current technical documents and updates can be found at **www.homematic-ip.com**.

Start-up

Selecting the supply voltage
The power supply for the Universal. The Lock Controller is provided by a separate power supply unit (not included in the delivery package). The basic requirements for this power supply unit are:

- Safety extra-low voltage (SELV)
- Voltage: 12 – 24 VDC, SELV (max. 40 mA)

Installation instructions
Please read this entire section before starting the pairing procedure. Before installation, please note the device number (SGTIN) labeled on the device as well as the exact installation location to make subsequent allocation easier. You can also find the device number
on the QR code sticker supplied.
Please note! Only to be installed by persons with relevant electro-technical knowledge and experience!

Incorrect installation can endanger

- your own life and the lives of other users of the electrical system.
- Incorrect installation also means that you are running the risk of serious damage to property, e.g. from fire.
- You risk personal liability for personal injury and property damage.

Consult an electrician!

- Specialist knowledge required for installation: The following specialist knowledge is Particularly important during installation:
- The “5 safety rules” to be used: Disconnect from the mains; Safeguard against switching on again
- Check that the system is de-energized; Earth and short circuit; Cover or cordon off neighboring live parts;
- Selection of suitable tools, measuring equipment, and, if necessary, personal protective equipment;
- Evaluation of measuring results
- Selection of electrical installation material for safeguarding shut-off conditions;

IP protection types

- Installation of electrical installation material
- Type of supply network (TN system, IT system, TT system) and the resulting connection conditions (classic zero balancing, protective earthing, required additional measures, etc.).
- Installation may only take place in normal commercial switch boxes (device boxes) by DIN 49073-1.
- Please observe the hazard information in the section (see „3 Hazard information“ on page 16) during installation.
- To ensure electrical safety, all terminals are to be connected only with safety extra-low voltage (SELV).
- It is essential to ensure that all connecting cables are laid so that they are physically separate from cables carrying mains voltage (e.g. in separate cable ducts or wiring conduits).
- Permitted cable cross-sections for connecting to the device are:
- Rigid cable and flexible cable [mm2] 0.08 – 0.5 mm2

Installation
Proceed as follows to install the device in a flush-mounted box:

- Switch off the power supply unit.
- Connect the device according to the connecting diagram.
- Fix the controller to an appropriate flush-mounted box.

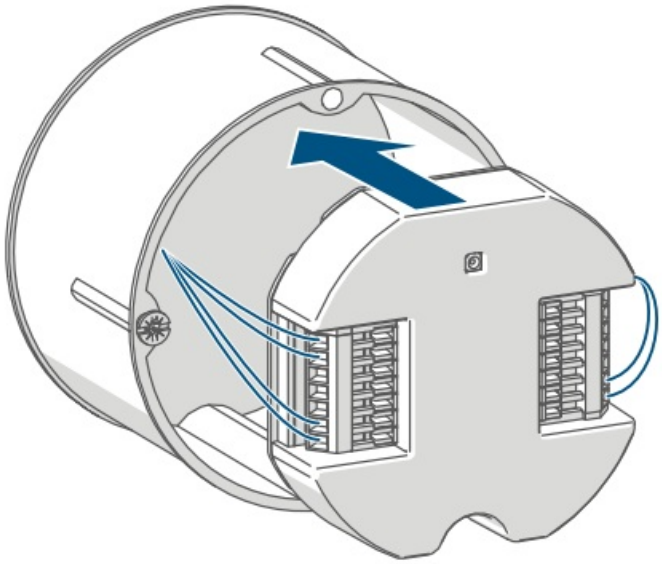

Figure 2

- Supply the device with voltage via the power supply unit provided to activate the device’s pairing mode.
- Possible application examples are shown below. Ow.
- Please refer to the operating instructions for your motorized lock for wiring instructions.

Door opening via the button

- A Floating button

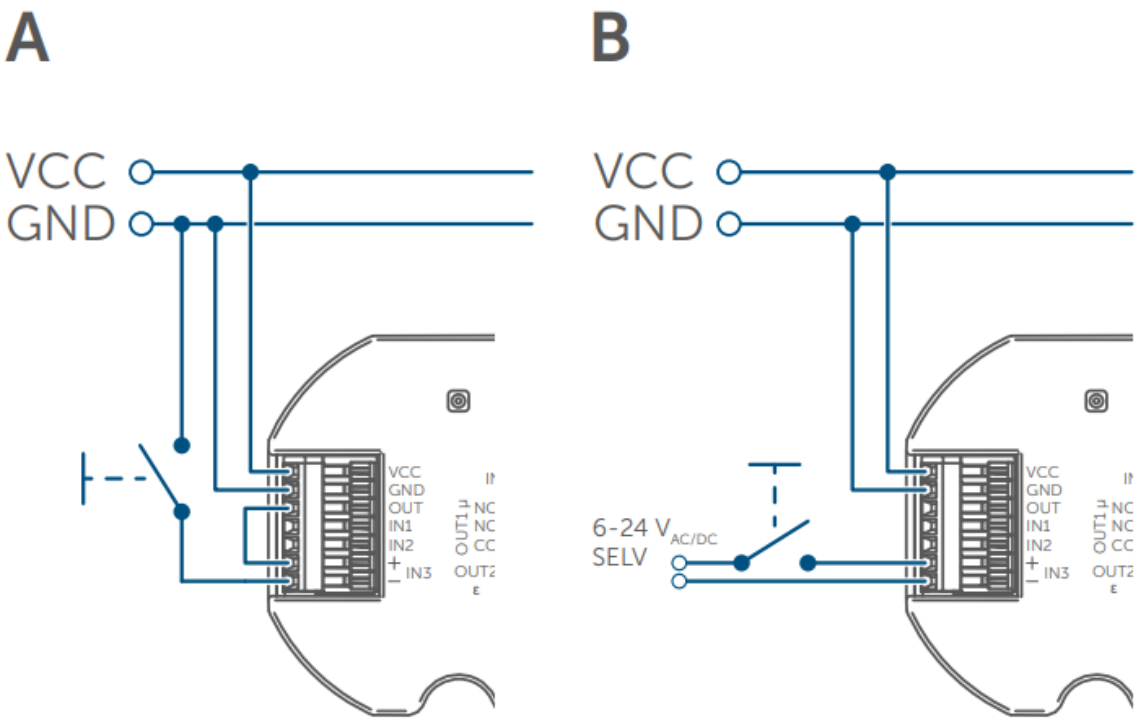

Figure 3

- B Button with external voltage
- Input IN3 is normally used for the door-opening function. Alternatively, other access control systems with pulse outputs can also be used (code lock, RFID reader, wireless receiver).

Day/night switching via button/ switch

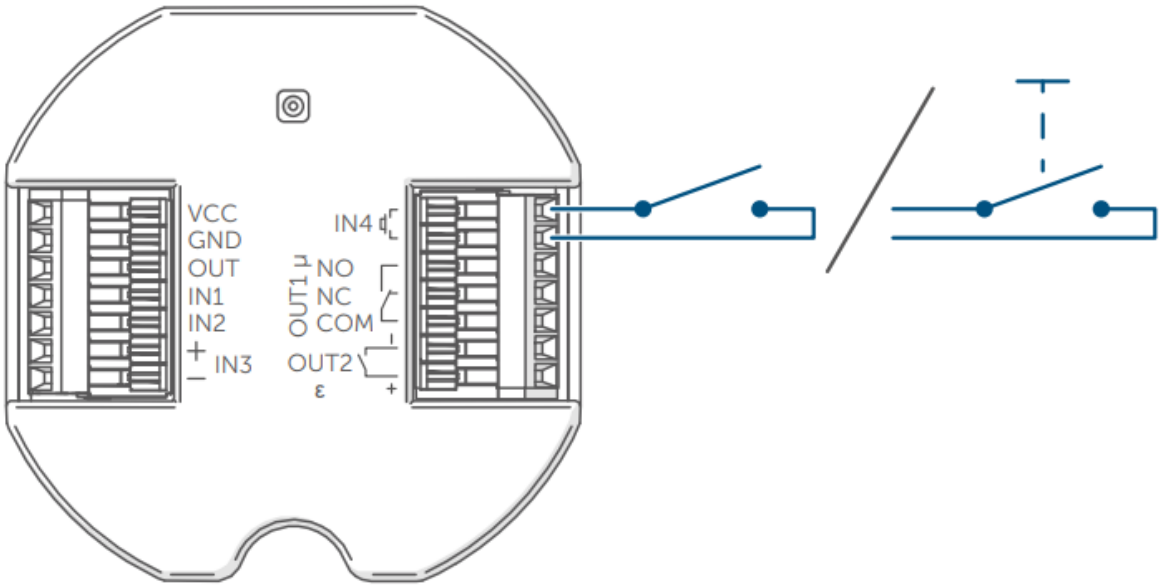

Figure 4

Day/night mode switching can also be triggered by a button or switch. The mode is changed automatically when a button is used (toggle function). A switch that specifies the mode by thethe corresponding position is normally used. This differs from the standard
configuration and must be set separately in the Homematic IP app. If the day/night mode is changed by time control or remote control, the position of the connected switch may not match the current mode. However, actuating the switch always results in a change to or continuation in the respective mode.

Door Status Detection
The open/closed door status can be detected with the IN1 input. Input IN2 detects the locked/unlocked status if installed. The corresponding signals for this must be provided by the motorized lock. Separate door/window contacts can also be used and connected to the HmIP-FLC.

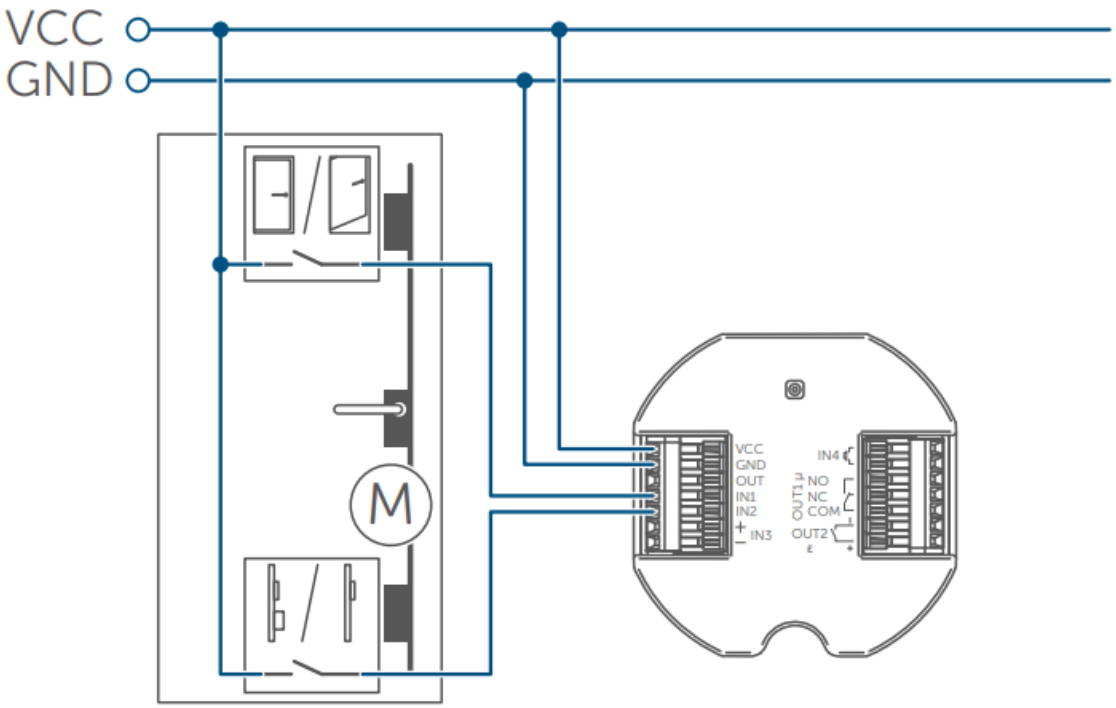

Figure 5

Simple door opener

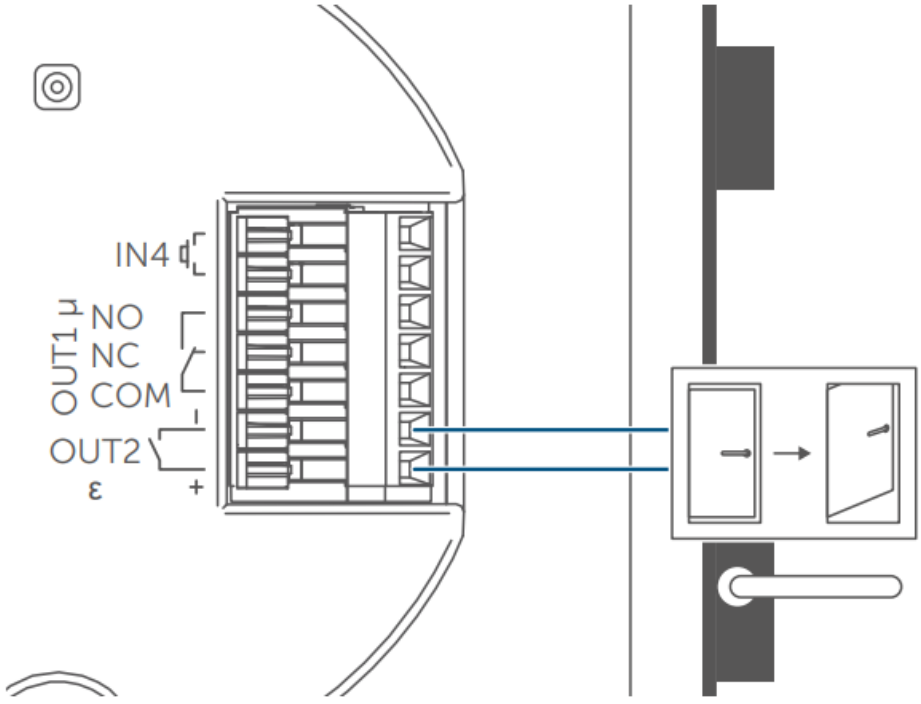

Figure 6

Connection of door openers with one signal input. When connecting the battery, ensure the correct polarity. e.g. compatible with Winkhaus blueMatic EAV3 and simple door openers

Common door opener and day/ night mode switching

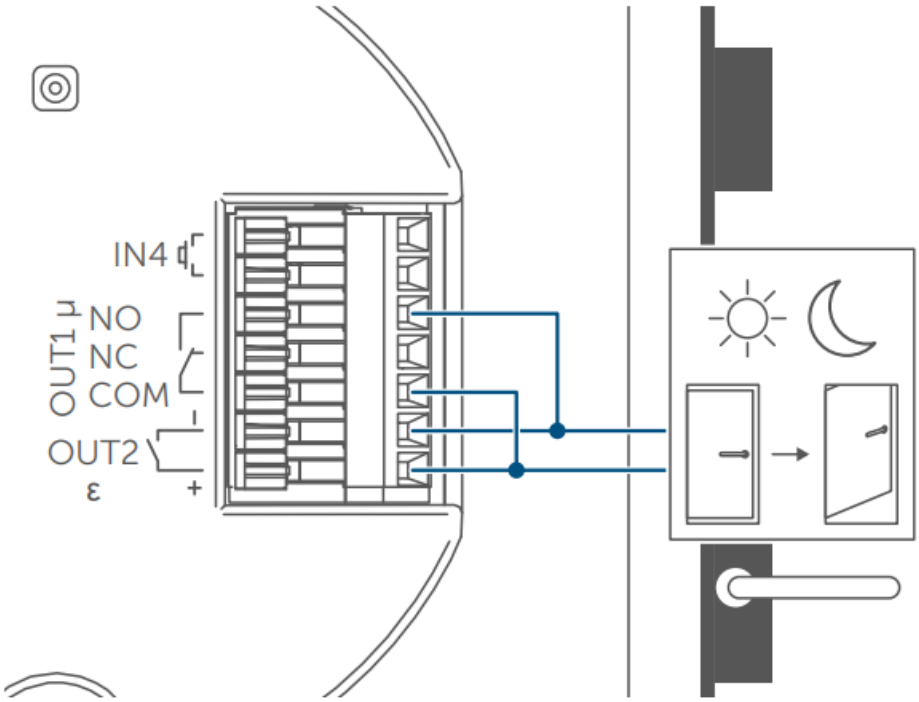

Figure 7

Connection of door openers and locks with separate inputs for door opening and locking functions. e.g. compatible with MACO M-TS, Fuhr Multitronic 881

Separate door opener and day/ night mode switching

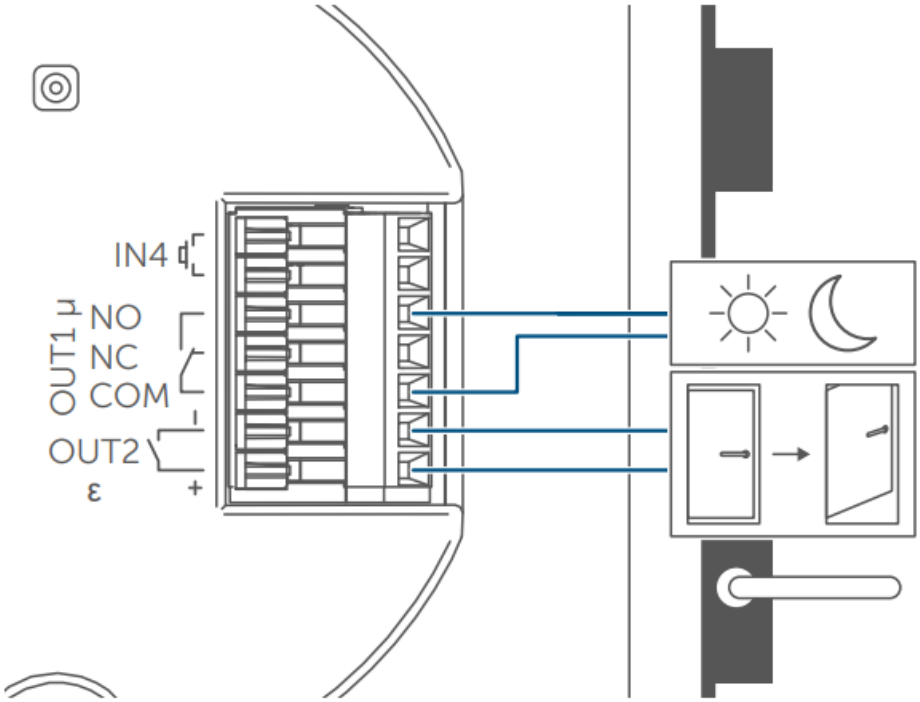

Figure 8

Connection of door openers with a locking function and only one signal input. e.g. compatible with Winkhaus

blueMotion, Siegena GENIUS, Roto Eneo

Pairing
Please read this entire section before starting the pairing procedure. First of all, set up your Homematic IP Home Control Unit or Homematic IP Access Point using the Homematic IP app to be able to use other Homematic IP devices in the system. Detailed information on this can be found in the operating instructions for the Home Control Unit or Access Point.

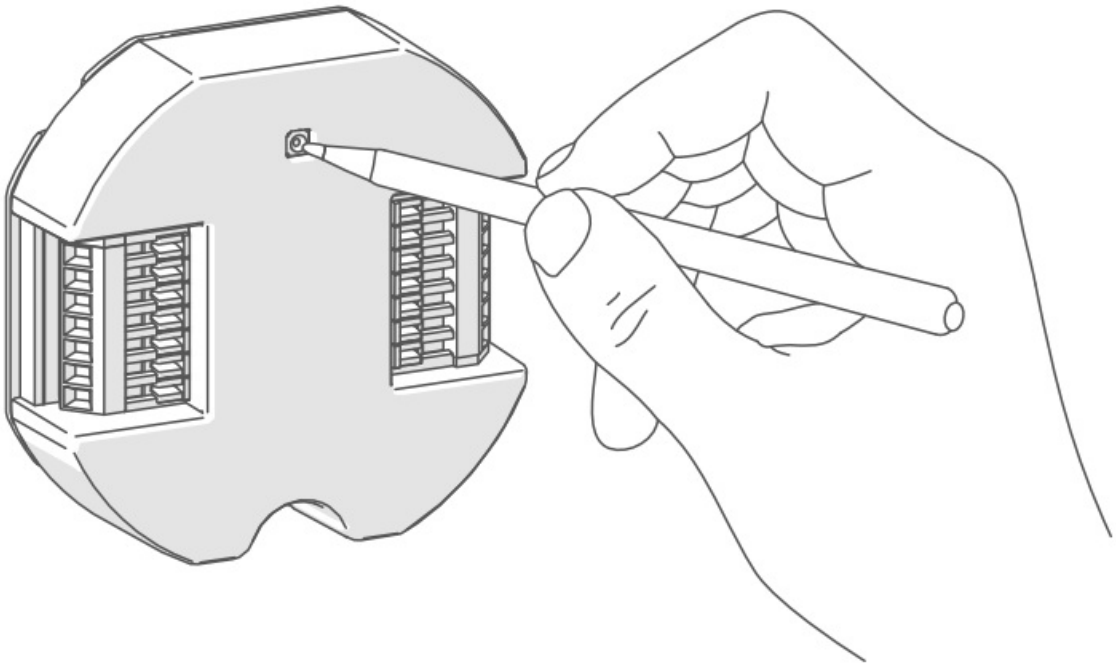

Figure 9

Proceed as follows to pair the device

- Open the Homematic IP app on your smartphone.
- Select the menu item “Pair device”.
- After installation, the pairing mode remains activated for 3 minutes.

You can manually start the pairing mode for another 3 minutes by briefly pressing the system button (A). Your device will automatically appear in the Homematic IP app.

- To confirm, enter the last four digits of the device number (SGTIN) in your app, or scan the QR code. The device number can be found on the sticker supplied or attached to the device.
- Wait until pairing is completed.
- If the pairing is successful, the LED (A) lights up green. The device is now ready for use.
- If the LED lights up red, please try again.
- In the app, give the device a name and allocate it to a room.
- After installation, close the flush-mounted box with a suitable cover or a masking frame for flush-mounted boxes.

Troubleshooting

Command not confirmed
If at least one receiver does not confirm a command, this may be caused by radio interference (see „11 General information about radio operation“ on page 24). The transmission error will be displayed in the app and may have the following causes:

- The receiver not be reached
- The receiver is unable to execute the command (load failure, mechanical blockade, etc.)
- Receiver is defective

Duty cycle
The duty cycle is a legally regulated limit of the transmission time of devices in the 868 MHz range. This regulation aims to safeguard the operation of all devices working in the 868 MHz range. In the 868 MHz frequency range we use, the maximum transmission time of any device is 1% of an hour (i.e. 36 seconds in an hour). Devices must cease transmission when they reach the 1% limit until this time restriction ends. Homematic IP devices are designed and produced with 100% conformity to this regulation.
During normal operation, the duty cycle is not usually reached.

However, repeated and radio-intensive pairing processes mean that it may be reached in isolated instances during the start-up or initial installation of a system. If the duty cycle is exceeded, this is indicated by three slow red flashes of the device LED (A) and may manifest itself in the device temporarily working incorrectly. The device starts working correctly again after a short period (max. 1 hour).

Error codes and flashing sequences

Flashing code	Meaning	Solution
Short orange flashes	Radio transmission/at- tempting to t ransmit/data transmission	Wait until the transmis- sion is com pleted.
1x long green light	Transmission confirmed	You can continue opera- tion.
1x long red light	Transmission failed or duty cycle li mit reached	Please try again *(see „8.1 Comman d not confirmed“ on page 22)* or *(se e „8.2 Duty cycle“ on page 22)*.
Short orange flashes (every 10 s)	Pairing mode active	Enter the last four digits of the devic e serial number to confirm *(see „7 Pairing“ on page 21)*.
6x long red flashes	Device defective	Please see the display on your app for error mes- sages or contact your retailer.
1x orange and 1x green light (after connecting the power supply)	Test display	You can continue once the test disp lay has stopped.

Restoring factory settings
The factory settings of the device can be restored. If you do this, you will lose all your settings. Proceed as follows to restore the factory settings of the device:

- Press and hold down the system button (A) using a pen for 4 seconds until the LED (A) quickly starts flashing orange.
- Release the system button (A) briefly and then hold the system button (A) down again until the orange flashes are replaced by a green light.
- Release the system button (A) again to complete restoring the factory settings.
- The device will perform a restart.

Maintenance and cleaning
The device does not require you to carry out any maintenance. Leave any maintenance or repair to a specialist. Clean the device using a soft, clean, dry, and lint-free cloth. The cloth can be slightly dampened with lukewarm water to remove more stubborn marks.
Do not use any detergents containing solvents, as they could corrode the plastic housing and label.

General information about radio operation
Radio transmission is performed on a non-exclusive transmission path, which means that there is a possibility of interference occurring. Interference can also be caused by switching operations, electrical motors, or defective electrical devices. The transmission range within buildings can differ significantly from that available in open space. Besides the transmitting power and the reception characteristics of the receiver, environmental factors such as humidity in the vicinitplaysay an important role, as do on-site structural/screening conditions.

eQ-3 AG, Maiburger Straße 29, 26789
Leer, Germany hereby declares that the radio equipment type Homematic IP
HmIP-FLC is compliant with Directive 2014/53/EU. The full text of the EUDeclarationn of Conformity can be found at: **www.homematic-ip.com**

Disposal
Instructions for disposal
This symbol means that the device must not be disposed of as household waste, general waste, or in a yellow bin or a yellow bag. For the protection of health and the environment, you must take the product and all electronic parts included in the scope of delivery to a municipal collection point for waste electrical and electronic equipment to ensure their correct disposal. Distributors of electrical and electronic equipment must also take back waste equipment free of charge. By disposing of it separately, you are making a valuable contribution to the reuse, recycling, ing and other methods of recovery of old devices. Please also remember that you, the end user, are responsible for deleting personal data on any waste electrical and electronic equipment before disposing of it.

Information about conformity

The CE mark is a free trademark that is intended exclusively for the authorities and does not imply any assurance of properties. For technical support, please contact your retailer.

Technical specifications

- Device short description: HmIP-FLC
- Supply voltage: 12 – 24 VDC
- Current consumption: 6.5 mA max.
- Power consumption standby: 60 mW Cable type and cross-section, rigid and flexible cable: 0.08 – 0.5 mm2
- Installation: Only in normal commercial switch boxes (device boxes) by DIN 49073-1
- 1x input channel for floating button/switch (F): Day/night
- 1x input channel for NO contact (E): Open/close
- Input voltage: 6 – 24 VAC/DC, SELV

- 2x input channels for contact interfaces (D): External door/window contacts or glass breakage detectors
- Input voltage: 12 – 24 VDC, SELV
- Floating open collector contact (H): Motorised lock open/closed
- Max. switching voltage: 30 VDC, SELV
- Max. switching current: 0.05 A*
- Floating changeover contact (G): Motorised lock day/night
- Max. switching voltage: 24 VAC/DC, SELV
- Max. switching current: 1 A*
- Protection rating: IP20
- Protection class: III
- Pollution degree: 2
- Ambient temperature: -5 to +40°C
- Dimensions (W x H x D): 52 x 52 x 15 mm
- Weight: 28 g
- Radio frequency band: 868.0 – 868.6 MHz
- 869.4 – 869.65 MHz
- Max. radio transmission power: 10 dBm
- Receiver category: SRD category 2
- Typical range in open space: 200 m
- Duty cycle: <1% per h/<10% per h

To ensure electrical safety, the power supply unit feeding the switching outputs (door opener/bell transformer) must be a safety extra-low voltage with a maximum load current limited to 5 A.

Free download of the Homematic IP app!

Manufacturer’s authorized representative:
eQ-3 AG
Maiburger Straße 29
26789 Leer / GERMANY
www.eQ-3.de

Documents / Resources

	homematic IP HmIP-FLC Universal Lock Controller [pdf] Instruction Manual 160578A0, 591902, HmIP-FLC Universal Lock Controller, HmIP-FLC, Universal Lock Controller, Lock Controller, Controller

References

- Startseite - eQ-3
- Home page | Homematic IP
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- User Manual