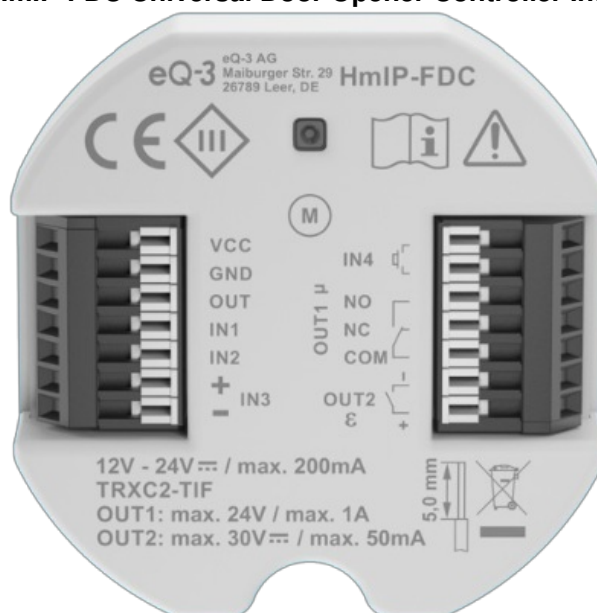


# homematic IP HmIP-FDC Universal Door Opener Controller Instruction Manual

[Home](#) » [Homematic IP](#) » homematic IP HmIP-FDC Universal Door Opener Controller Instruction Manual 

## homematic IP HmIP-FDC Universal Door Opener Controller Instruction Manual



### Documentation © 2024 eQ-3 AG, Germany

All rights reserved. Translation of the original German version. This manual may not be reproduced in any format, either in whole or in part, nor may it be duplicated or edited by electronic, mechanical or chemical means, without the written consent of the publisher.

Typographical and printing errors cannot be excluded. However, the information contained in this manual is reviewed on a regular basis and any necessary corrections will be implemented in the next edition. We accept no liability for technical or typographical errors or the consequences thereof.

All trademarks and industrial property rights are acknowledged.

Changes in line with technical progress may be made without prior notice.

161088 (web) | Version 1.0 (12/2024)

## Contents

- 1 Package contents
- 2 Information about this manual
- 3 Hazard information
- 4 Function and device overview
- 5 General system information
- 6 Start-up
- 7 Selecting the supply voltage
- 8 Installation instructions
- 9 Consult an electrician!
- 10 Installation
- 11 Door opening via button
- 12 Day/night switching via button/switch
- 13 Door status detection
- 14 Simple door opener
- 15 Pairing
- 16 Troubleshooting
- 17 Error codes and flashing sequences
- 18 Restoring factory settings
- 19 Maintenance and cleaning
- 20 General information about radio operation
- 21 Disposal
- 22 Technical specifications
- 23 Documents / Resources
  - 23.1 References
- 24 Related Posts

## Package contents

- 1x Universal Door Opener Controller
- 1x Operating manual

## Information about this manual

Please read this manual carefully before operating your 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 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 Door Opener Controller is a device for controlling an existing electric door opener and is designed for integration into installations with permanently installed electric door openers in (house) entrance doors. When using the HmIPFDC, the electric door opener can be switched directly. The power supply required for the door opener must be provided by the customer.

The HmIP-FDC 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. It is also possible to output an opening pulse at the touch of a button. There are two switching outputs for controlling the electric door opener. The changeover contact is used to switch between day/ night mode. The open collector output sends the switching pulse to the door opener.

### 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 open collector

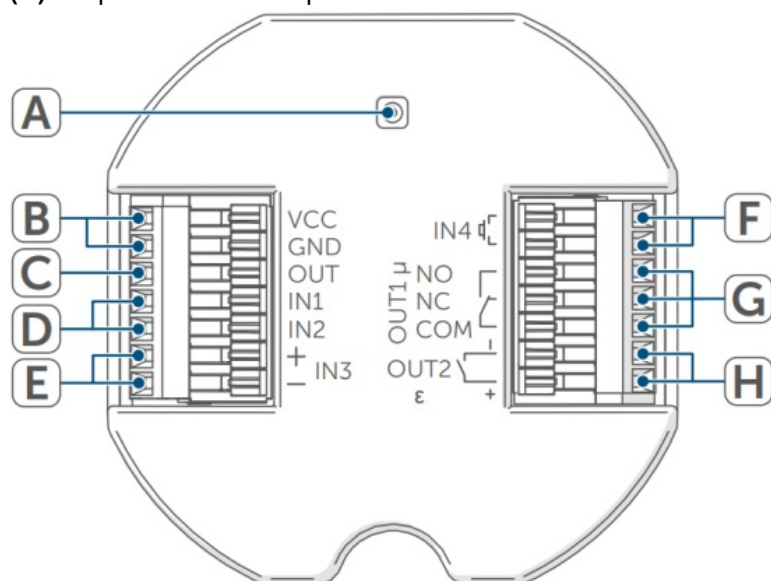


Figure 1

## 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 Homematic IP system 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](http://www.homematic-ip.com).

## Start-up

### Selecting the supply voltage

**The power supply for the universal door opener 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) labelled 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 the 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 system is deenergized; 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) in accordance with DIN 49073-1.



Please observe the hazard information in section (see „3 Hazard information“ on page 15) during installation.



To ensure electrical safety, all terminals are to be connected only with safety extra-low voltage (SELV).



It is absolutely 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).

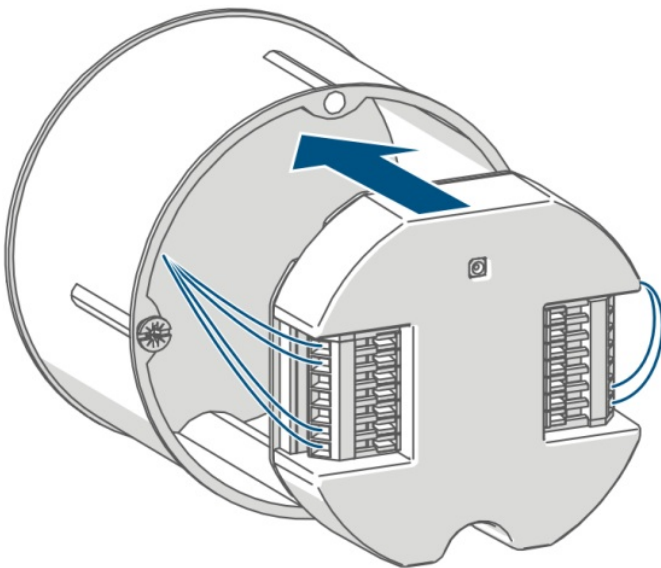
#### **Permitted cable cross sections for connecting to the device are:**

Rigid cable and flexible cable [mm<sup>2</sup>] 0.08 – 0.5 mm<sup>2</sup>

### **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.

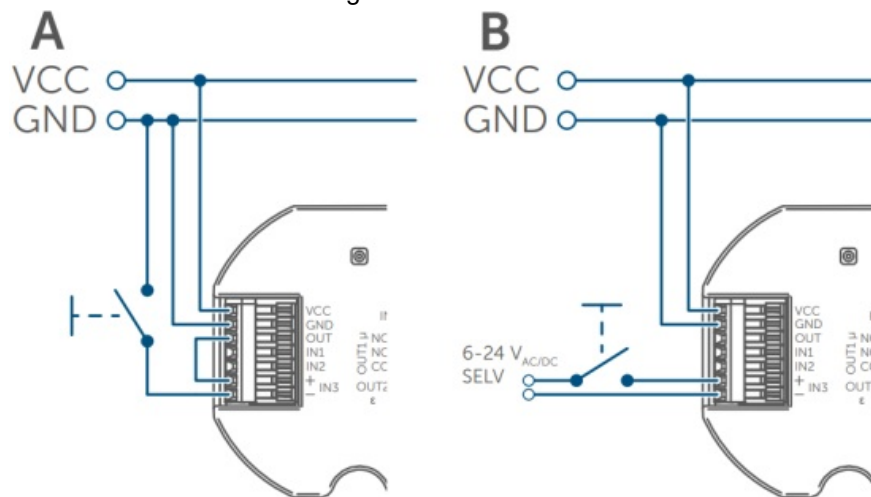


Please refer to the operating instructions for your electric door opener for wiring instructions.

### **Door opening via button**

**A.** Floating button

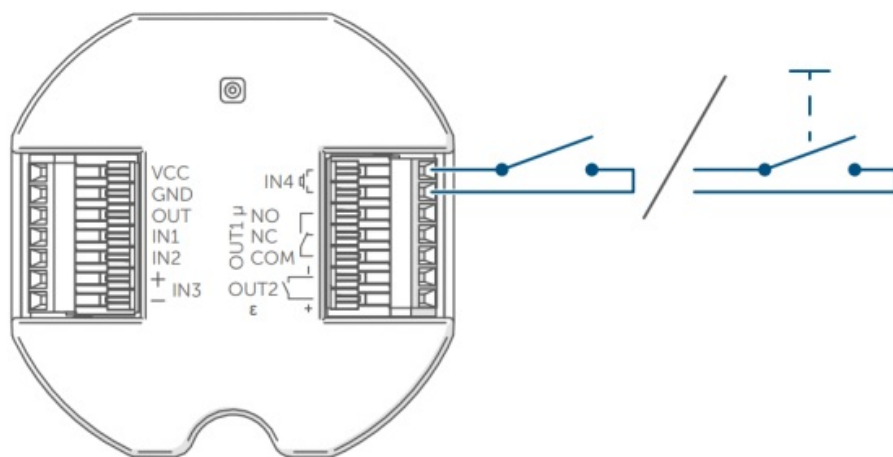
**B.** Button with external voltage



**Figure 3**

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 the corresponding position is normally used.

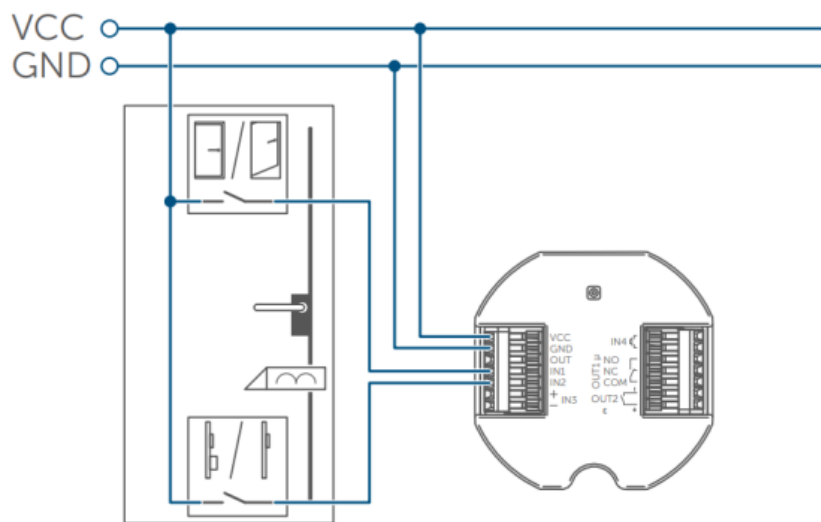


This differs from the standard configuration and must be set separately in the Homematic IP app.



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

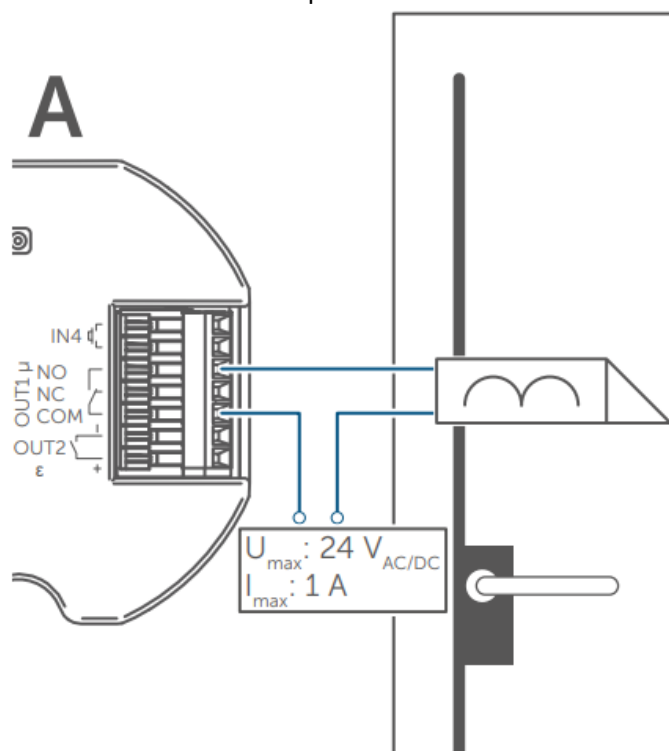


**Figure 5**

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 can be provided by separate door/ window contacts and connected to the HmIP-FDC.

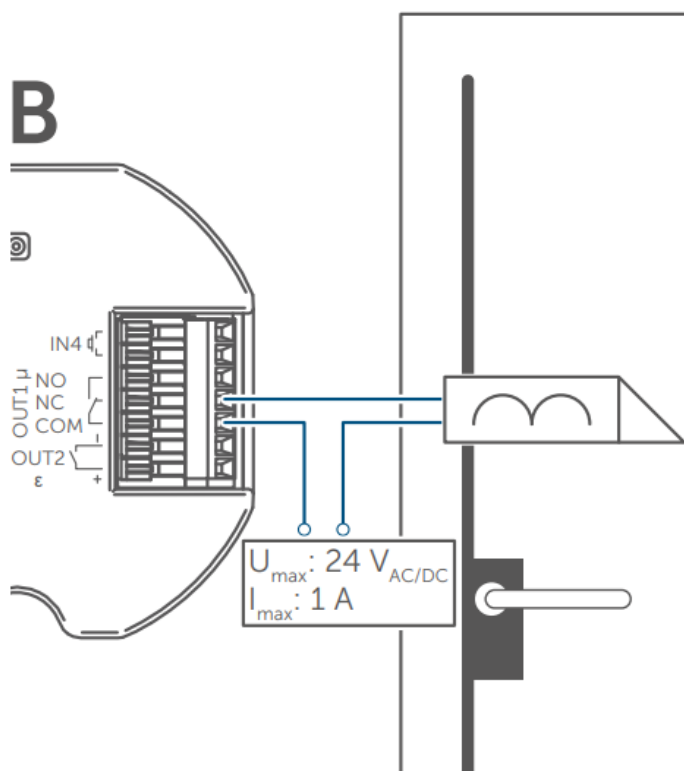
## Simple door opener

### A. Classic electric door opener



**Figure 6**

### B. Electric door opener with closed-circuit current function



**Figure 7**

With a suitable voltage source and a corresponding electric door opener, output terminal C of the HmIP-FDC can be used for the supply voltage, if necessary.

## Pairing



Please read this entire section before starting the pairing procedure.



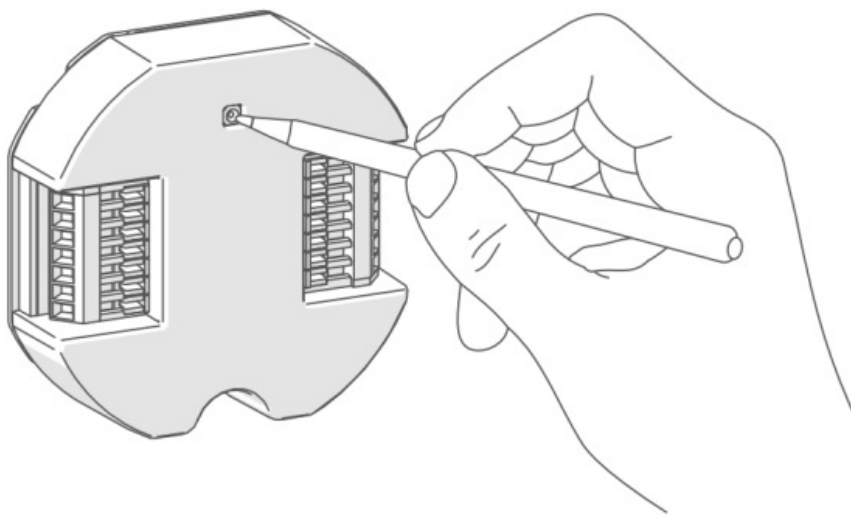
First of all, set up your Homematic IP Home Control Unit or Homematic IP Access Point using the Homematic IP app to be able to use other Homematic IP devices in the system. Detailed information on this can be found in the operating instructions for the Home Control Unit or Access Point.

### 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).





**Figure 8**

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 pairing was 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 22). The transmission error will be displayed in the app and may have the following causes:

- Receiver cannot be reached
- 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. The aim of this regulation is 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 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 ( <a href="#">see „8.1 Comma nd not confirmed“ on page 20</a> ) or ( <a href="#">see„8.2 Duty cycle“ on page 20</a> ). |
| Short orange flashes (every 10 s)                                | Pairing mode active  | Enter the last four digits of the devic e serial number to confirm( <a href="#">see „7 P airing“ on page 19</a> ).                      |
| 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 vicinity play an important role, as do on-site structural/screening conditions.

eQ-3 AG, Miniburger Straße 29, 26789 Leer, Germany hereby declares that the radio equipment type Homematic IP HmIP-FDC is compliant with Directive 2014/53/EU. The full text of the EU declaration of conformity can be found at: [www.homematic-ip.com](http://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 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-FDC

**Supply voltage:** 12 – 24 VDC

**Current consumption:** 6.5 mA max.

**Power consumption in standby:** 60 mW

Cable type and cross section,

**rigid and flexible cable:** 0.08 – 0.5 mm<sup>2</sup>

**Installation:** Only in normal commercial switch boxes (device boxes) in accordance with 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):** Door opener open/closed

**Max. switching voltage:** 30 VDC, SELV

**Max. switching current:** 0.05 A\*

**Floating changeover contact (G):** Door opener 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.

Subject to technical modifications.

**Free download of the Homematic IP app!**



**Manufacturer's authorised representative:**

**eQ-3 AG**

Maiburger Straße 29  
26789 Leer / GERMANY

[www.eQ-3.de](http://www.eQ-3.de)



## Documents / Resources



[homematic IP HmIP-FDC Universal Door Opener Controller](#) [pdf] Instruction Manual  
HmIP-FDC, HmIP-FDC Universal Door Opener Controller, Universal Door Opener Controller, Do  
or Opener Controller, Opener Controller, Controller

## References

- [e Startseite - eQ-3](#)
- [IP Home page | Homematic IP](#)
- [User Manual](#)

### Manuals+ Privacy Policy

This website is an independent publication and is neither affiliated with nor endorsed by any of the trademark owners. The "Bluetooth®" word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. The "Wi-Fi®" word mark and logos are registered trademarks owned by the Wi-Fi Alliance. Any use of these marks on this website does not imply any affiliation with or endorsement.