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homematic IP HmIP-FBL Automation System Switch Actuator



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Package contents

- 1x Blind Actuator flush-mount
- 1x User manual

Information about this manual

Read this manual carefully before beginning operation with 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, hand over this manual as well.

Symbols used:



Attention! This indicates a hazard.



Please note: This section contains important additional information.

Hazard information

We do not assume any liability for damage to property or personal injury caused by improper use or the failure to observe the hazard information. In such cases any claim under warranty is extinguished!

- For consequential damages, we assume no liability! Do not open the device. It does
 not contain any parts that can be maintained by the user. There is a risk of electric
 shock if the device is opened. If you have any doubts, have the device checked by an
 expert.
- For safety and licensing reasons (CE), unauthorised change and/or modification of the device is not permitted..
- The device has not been designed to support safety disconnection.
- Do not use the device if there are signs of damage to the housing, control elements or connecting sockets, for example. If you have any doubts, have the device checked by an expert.
- 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/bags, pieces of polystyrene, etc. can be dangerous
 in the hands of a child.
- The device may only be used for fixed installations. The device must be securely attached within a fixed installation.
- The actuator is part of the building installation. The relevant national standards and directives must be taken into consideration during planning and set-up. The device has been designed solely for operation on a 230 V/50 Hz AC supply. Only qualified electricians (to VDE 0100) are permitted to carry out work on the 230 V mains.
 Applicable accident prevention regulations must be complied with whilst such work is

being carried out. To avoid electric shocks from the device, please disconnect the mains voltage (trip the miniature circuit-breaker). Noncompliance with the installation instructions can cause fire or introduce other hazards. When connecting to the device terminals, take the permissible cables and cable cross sections into account. Loads connected to the relay outputs require sufficient insulation. Please take the technical data (in particular,r the maximum permissible switching capacity of the relay and the type of load to be connected) into account before connecting a load! Do not exceed the capacity specified for the device. Exceeding this capacity could lead to the destruction of the device, fires or electric shocks. The circuit to which the device and the load will be connected has to be secured by a cable protection switch in accordance with EN60898-1 (tripping characteristic B or C, max. 16 A rated current, min. 6 kA interrupting rating, energy limiting class 3). Installation regulations according to VDE 0100 and HD382 or 60364 have to be considered. Users must be able to easily access the cable protection switch. This must be marked as a disconnecting device for the actuator.

- Before the actuator is connected, remove the fuse from the fuse box.
- The device may only be operated within residential buildings. Using the device for any
 purpose other than that described in this operating manual does not fall within the
 scope of intended use and shall invalidate any warranty or liability.
- The device can only be used with tube motors that have integrated obstacle detection.

Homematic IP - Smart living, simply comfortable

This device is part of the Homematic IP smart home system and works with the Homematic \IP radio protocol. All\ devices of the system can be configured comfortably and individually with the Homematic IP smartphone app. Alternatively, you can operate the Homematic IP devices via the Homematic Central Control Unit CCU3 or in connection with various partner solutions. The available functions provided by the system in combination with other components are described in the Homematic IP User Guide. All current technical documents and updates are provided at www.homematic-ip-com.

Function and device overview

The Homematic IP Blind Actuator is suitable for installation with a flush mounting or

surface-mounting box and offers individual control of connected AC motors used with blinds, shutters and awnings. Thus, electrically operated window coverings are moved up and down automatically and the slat position of blinds can be adjusted precisely. Blinds, shutters and awnings are operated easily via an external pushbutton, via remote control or the Homematic IP app.

Device overview:

- (A) System button (reset button and LED)
- (B) Fixing lug
- (C) Connecting terminal 2 (motor "up")
- (D) Connecting terminal 1 (motor "down")
- (E) Connecting terminal for L (phase conductor)
- (F) Connecting terminal for N (neutral conductor)
- (G) Connecting terminal for S1 (pushbutton input "down")
- (H) Connecting terminal for S2 (pushbutton input "up")

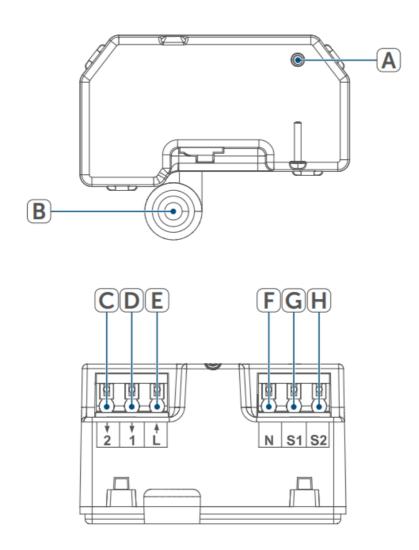


Figure 1

Start-up

Installation instructions

Please read this entire section before starting to install the device.

Before installation, please note the device number (SGTIN) labelled on the device as well as the exact installation location in order to make later 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 put

- your own life at risk;
- 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. because of a fire. You may be personally liable in the event of injuries or damage to property.

Contact an electrical installer!

*Specialist knowledge required for installation: The following specialist knowledge is particularly important during installation:

- The "5 safety rules" to be used: Disconnect from mains; Safeguard from switching on again; Check that system is deenergised; Earth and short circuit; Cover or cordon off neighbouring live parts;
- Select a suitable tool, measuring equipment and, if necessary, personal safety 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 connecting conditions (classical 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 or surface-mounting boxes in accordance with DIN 60670-1 (e.g. Abox 025 or Abox 040).

The device can only be used with tube motors that have integrated obstacle detection. Please observe the hazard information in section (see "3 Hazard information" on page 15) during installation. or surface-mounting boxes in accordance with DIN 60670-1 (e.g. Abox 025 or Abox 040).

Permitted cable cross sections for connecting to the blind actuator are:

rigid cable [mm²]	flexible cable with/wit- hout ferrule [mm²]	

0.75 – 1.50	0.75 – 1.50

Installation

You can install the blind actuator

- in a flush-mounting box or
- in a surface-mounting box

Flush-mounting box installation

To install the blind actuator in a flush mounting box, please proceed as follows:

- Switch off the fuse of the power circuit
- Connect the switched phase conductors for connecting terminals 1 and 2 to the motor as follows:
 - Connecting terminal 2 (C): "Up"
 - Connecting terminal 1 (D): "Down"
- Connect the phase conductor to the connecting terminal L (E)
- Connect the neutral conductor to the connecting terminal N (F)
- Connect an external blind/shutter push-button to the connecting terminal S1 and S2:
 - o Connecting terminal S1 (G): "Down"
 - o Connecting terminal S2 (H): "Up"
- Connect the neutral conductor of The motor to the neutral conductor of the house installation.
- Connect the phase connection of the blind/shutter push-button with the phase conductor of the house installation.
- Fix the actuator to an appropriate flush-mounting box. If required, you can remove the fixing lug (A)
- Close the flush-mounting box using an appropriate cover
- Switch the fuse of the power circuit on again to activate the pairing mode of the device

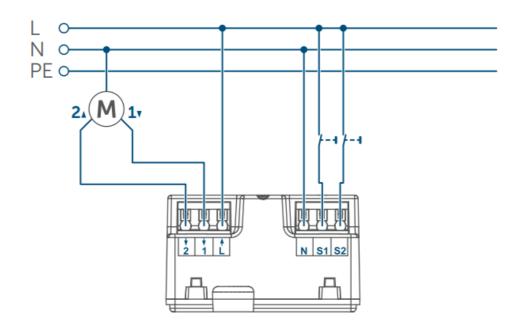


Figure 2

Surface-mounting box installation

To install the blind actuator in a surface- mounting box, please proceed as follows:

- Switch off the fuse of the power circuit
- Connect the switched phase conductors for connecting terminals 1 and 2 to the motor as follows:
 - o Connecting terminal 2 (C): "Up"
 - o Connecting terminal 1 (D): "Down"
- Connect the phase conductor to connecting terminal L (E)
- Connect the neutral conductor to the connecting terminal N (F)
- Connect an external blind/shutter push-button to the connecting terminals S1 and S2:
 - o Connecting terminal S1 (G): "Down"
 - o Connecting terminal S2 (H): "Up"
- Connect the neutral conductor of the motor to the neutral conductor of the house installation
- Connect the phase connection of the blind/shutter actuator with the phase conductor of the house installation
- Fix the actuator to an appropriate surface-mounting box (e.g. Abox025 or Abox040) (see figure 3)

- Fix the actuator to the holding mandrel using the fixing lug. Screw the actuator if required
- Close the surface-mounting box using the corresponding cover
- Switch the fuse of the power circuit on again, to activate the pairing mode of the device

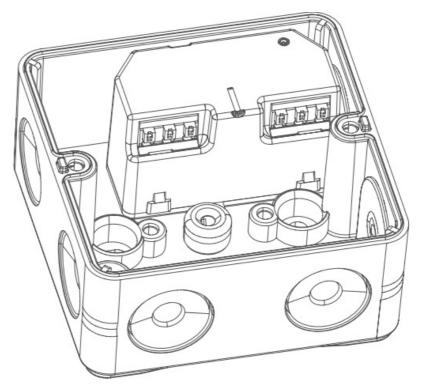


Figure 3

Pairing

- Please read this entire section before starting the pairing procedure.
- First set up your Homematic IP Access Point via the Homematic IP app to enable operation of other Homematic IP devices within your system. For further information, please refer to the operating manual of the Access Point.
- You can connect the device either to the Access Point or to the Homematic Central Control Unit CCU3. For detailed information, please refer to the Homematic IP User Guide, available for download in the download area of www.homematic-ip.com

To integrate the blind actuator into your system and enable it to communicate with other Homematic IP devices, you must pair the device to your Homematic IP Access Point first.

To pair the blind actuator, please proceed as follows:

- Open the Homematic IP app on your smartphone.
- Select the menu item "Pair device".
- After installation, the pairing mode remains activated for 3 minutes. If the 3 minutes
 have expired, disconnect and reconnect the mains voltage to start the pairing mode
 again.
- Your device will automatically appear in the Homematic IP app.
- To confirm, please enter the last four digits of the device number (SGTIN) in your app or scan the QR code. Therefore, please see the sticker supplied or attached to the device.
- Please wait until pairing is completed.
- If pairing was successful, the LED lights up green. The device is now ready for use.
- If the LED lights up red, please try again.
- Complete the setup of your blind actuator by following the instructions in the app.
- In the app, give the device a name and allocate it to a room.

Operation

After setup, you can perform initial operating functions via the external blind/shutter push-button:

- Short button press button S1 or S2: The motor for the blinds/shutters/ awnings moves into the corresponding end position.
- Short button press opposite direction: The motor stops.
- Long button press: The motor is controlled so that you can adjust the slat position of the blind.

Troubleshooting

Command not confirmed

If at least one receiver does not confirm a command, the device LED lights up red at the end of the failed transmission process. The failed transmission may be caused by radio interference (see "10 Maintenance and cleaning" on page 23). This may be caused be

the following:

- 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 comes to an end. 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 pair processes mean that it may be reached in isolated instances during start-up or initial installation of a system. If the duty cycle limit is exceeded, the device may stop working for a brief period. The device starts working correctly again after a short period (max. 1 hour).

Adjustment of the slats not possible

If it is not possible to control the slats of a blind or if they do not move when activated, this may be due to the drive motors. In this case the delay before the motor starts is too long. This behaviour can be corrected by using the "Compensation for delay of motor start" setting in the device configuration. We recommend setting this value to 0.2 seconds.

Error codes and flashing sequences

Flashing code	Meaning	Solution
Permanent orange ligh- tin	Access Point is starting	Please wait shortly and ob serve the subsequent flash ing behaviour.

Fast blue flashing	Connection to the server is being established	Wait until the connection is established and the LED li ghts permanently blue.	
Permanent blue lighting	Normal operation, con- nection to server is estab- I ished	You can continue opera- ti on.	
Fast yellow flashing	No connection to net- work or router	Connect the Access Point t o the network/router.	
Permanent yellow lighting	No Internet connection	Please check the Internet connection and firewall settings.	
Permanent turquoise ligh- t ing	Router function active (for operation with seve- ral Ac cess Points/Central Control Units)	Please continue the ope- r ation.	
Fast turquoise flashing	No connection to Central Control Unit (only when operating ating with CCU3)		
Alternately long and short orange flashing	Update in progress	Please wait until the up- da te has been completed	
Fast red flashing	t red flashing Error during update		
Fast orange flashing	Stage before restoring the factory settings	Press and hold down the s ystem button again for 4 se conds, until the LED lights up green.	

1x long green lighting	Reset confirmed	You can continue opera- ti on.	
1x long red lighting	Reset failed	Please try again.	

Restore factory settings

The factory settings of the device can be restored. If you do this, you will lose all your set

To restore the factory settings of the blind actuator, please proceed as follows:

- Press and hold down the system button (A) for at least 4 seconds using a VDE screwdriver, until the LED quickly starts flashing orange.
- Release the system button again.
- Press and hold down the system button again for 4 seconds, until the LED lights up green.
- Release the system button to finish the procedure.

The device will perform a restart. After the restart, you can again integrate your device into your Homematic IP system.

Maintenance and cleaning

The product does not require any maintenance. Enlist the help of an expert to carry out any maintenance or repairs. The mains voltage must be disconnected before the device is removed (trip the miniature circuit- breaker). Only qualified electricians (to VDE 0100) are permitted to carry out work on the 230 V mains. Clean the device using a soft, lint-free cloth that is clean and dry. You may dampen the cloth a little with lukewarm water in order to remove more stubborn marks. Make sure that no moisture will ingress into the housing. 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 range of transmission within buildings can differ greatly from that available in the open air. Besides the transmitting power and the reception characteristics of the receiver, environmental factors such as humidity in the vicinity have an important role to play, as do on-site structural/screening conditions.

Hereby, eQ-3 AG, Maiburger Str. 29, 26789 Leer/Germany, declares that the radio equipment type Homematic IP HmIP-FBL is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address:

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 sack. 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 old electrical and electronic equipment to ensure their correct disposal. Distributors of electrical and electronic equipment must also take back obsolete 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 old 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 name: HmIP-FBL
- Supply voltage
 - o Plug-in mains adapter (input): 100 V-240 V/50 Hz
- Power consumption
 - o plug-in mains adapter: 2.5 W max.
- Supply voltage: 5 VDC
- Current consumption: 500 mA max.
- Standby power consumption: 1.1 W
- Degree of protection: IP20
- Ambient temperature: 5 to 35 °C
- Dimensions (W x H x D): 118 x 104 x 26 mm
- Weight: 153 g
- Radio frequency band: 868.0-868.6 MHz 869.4-869.65 MHz
- Maxium radiated power: 10 dBm max.
- Receiver category: SRD category 2
- Typ. open area RF range: 400 m
- Duty cycle: < 1 % per h/< 10 % per h
- Network: 10/100 MBit/s, Auto-MDIX

Subject to technical changes.

Kostenloser Download der Homematic IP App! Free download of the Homematic IP app!



- What should I do if the pairing process fails?
 - If the pairing process fails, try resetting the device by power cycling and attempting the pairing process again.
- How can I restore the factory settings of the device?
 - To restore the factory settings, follow the steps outlined in the manual under "Factory Settings Restoration."

Documents / Resources



homematic IP HmIP-FBL Automation System Switch Actuator [pdf] Install ation Guide

HmIP-FBL Automation System Switch Actuator, HmIP-FBL, Automation S ystem Switch Actuator, System Switch Actuator, Switch Actuator

References

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♠ Automation System Switch Actuator, HmIP-FBL, HmIP-FBL Automation System Switch Actuator, Homematic IP, Switch Actuator, System Switch Actuator

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