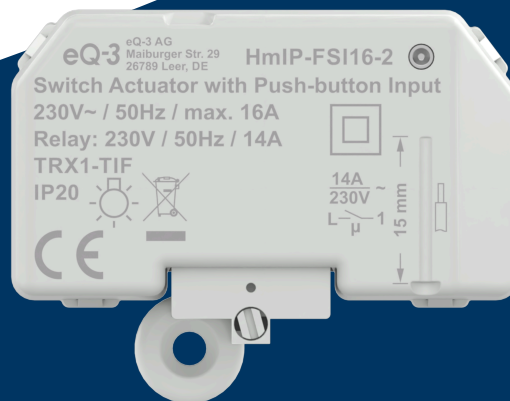


HmIP-FSI16-2

# Switch actuator with push-button input (16 A) – flush-mount



Installation instructions and  
operating manual

homematic 

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## 1 Package contents

1x Switch actuator with push-button input (16 A) – flush-mount  
Operating manual










## 2 Information about this manual






Read this manual carefully before beginning operation with your Homematic IP device. Keep the manual for later consultation. If you hand the device over to other persons for use, please ask them to read this manual.

### Symbols used

-  This indicates a hazard.
-  This section contains important additional information.

## 3 Hazard information

-  We accept no liability for damage caused by use for other than the intended purpose, incorrect handling or failure to observe the hazard warnings. In such cases, all warranty claims are void. We accept no liability for consequential damage.
-  Do not use the device if it has visible damage or a malfunction. If you have any doubts, have the device checked by a qualified expert.
-  For safety and licensing reasons (CE), unauthorised conversions to and/or modification of the device are not permitted.
-  The device is not a toy – do not allow children to play with it.
-  Plastic film, plastic bags, polystyrene parts, etc. can be dangerous for children. Keep the packaging material out of the reach of children and dispose of it immediately.
-  Do not expose the device to moisture, vibrations, constant solar or other heat radiation, excessive cold or mechanical loads. The device must only be operated indoors.
-  Improper use of the device with a load greater than the specified rated current or greater than the specified rated power (overload) will cause the device to switch off automatically after a short delay. The safety switch-off is indicated by an error message in the app. In the event of a fault, contact a qualified electrician to have the overload rectified. The device is automatically ready for operation again after a waiting time of approx. 30 minutes.
-  Overloading the device can lead to the destruction of the device, to a fire or to an electrical accident. Before connecting a load, check the technical data, in particular the maximum permissible connected load and the type of load to be connected (load types) in accordance with the instructions. Do not exceed the capacity specified for the device.
-  Loads connected to the output terminals require sufficient insulation.

-  The device may only be installed in the following device boxes/surface-mounting boxes:
- in commercially available switch sockets (device boxes) in accordance with DIN 49073-1
  - In surface-mounting boxes in accordance with DIN 60670-1 (e.g. Abox 025 or Abox 040)
-  The device has been designed solely for operation on a 230 V / 50 Hz AC supply. Work on the 230 V mains may only be carried out by a qualified electrician (in accordance with VDE 0100).
-  The device is part of the building installation. Observe the relevant national standards and directives 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. The applicable accident prevention regulations must be observed while such work is being carried out. To avoid electric shocks from the device, please disconnect the mains voltage (trip the miniature circuit-breaker). Failure to comply with the installation instructions can cause fire or other hazards.
-  Observe the permissible cable types and conductor cross sections when connecting to the device terminals.
-  Clean the device using a soft and dry lint-free cloth. The cloth can be slightly moistened with lukewarm water to remove more stubborn marks. Do not use solvent-based cleaning agents for cleaning, as these can damage plastic parts and labelling.

## 4 General system information

This device forms part of the Homematic IP Smart Home system and communicates via the Homematic IP radio protocol. The device can be paired directly with one or more Homematic IP devices in order to control them directly (push-to-pair). Alternatively, the device can be paired with a control unit and configured via the Homematic IP app. All devices of the system can be configured comfortably and individually using the Homematic IP app. Operation requires connection to a Homematic IP Access Point or control unit. Further information on the system and on combination with other Homematic IP devices can be found in the Homematic IP [User guide](#). All technical documents and updates are to be found at [www.homematic-ip.com](http://www.homematic-ip.com).

## 5 Function and device overview

The Homematic IP Switch Actuator with Push-button Input (16 A) – flush-mount switches connected loads. Thanks to the particularly high switching capacity, large loads of up to 16 A can also be switched. In the Homematic IP system, the device can conveniently switch lamps and other lighting systems on and off a paired button, wireless remote control or the free Homematic IP App. Direct operation is possible via connected conventional buttons and switches. In addition, the device can be used in conjunction with a Homematic IP Wall Thermostat (e.g. HmIP-WTH-2) to regulate the room temperature via electrical heating devices.

## Device overview

- A) System button (device LED)
- B) Fixing lug
- C) Connecting terminal for L ↑ (phase conductor)
- D) Connecting terminal for 1 ↓ (normally open)
- E) Connecting terminal for N (neutral conductor)
- F) Connecting terminal for S1 (extension input)

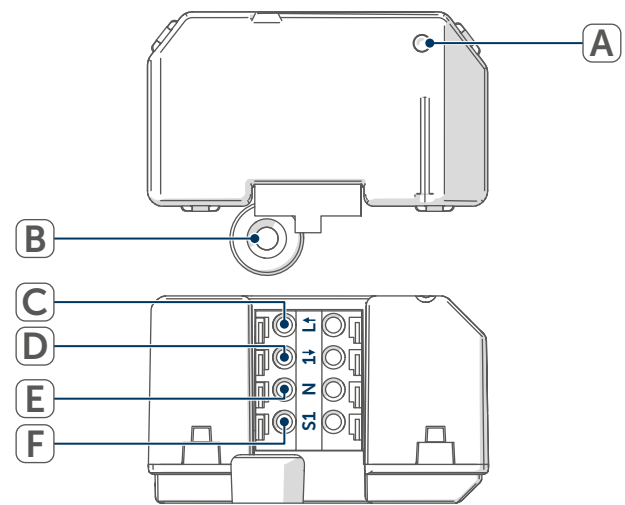


Figure 1

## 6 Start-up

### 6.1 Installation instructions

- i* Read this section completely before starting installation.
- i* Make a note of the device number (SGTIN) and the installation location of the device before installation to make it easier to identify the device later. The device number is printed on the device and on the enclosed QR code sticker.



Please observe the hazard warnings during installation [see Hazard information, page 3](#).



Please note the insulation stripping length of the conductor being connected, as indicated on the device.



The device may only be installed in the following device boxes/surface-mounting boxes:

- in commercially available switch sockets (device boxes) in accordance with DIN 49073-1
- In surface-mounting boxes in accordance with DIN 60670-1 (e.g. Abox 025 or Abox 040)

If changes to or work on the house installation are necessary (e.g. extension, bypass of switch or socket inserts) or to/on the low-voltage distribution system for mounting or installing the device, the following safety instructions must be observed:



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. due to fire. You risk personal liability for personal injury and property damage.

### **\*Specialist knowledge required for installation:**

The following specialist knowledge is particularly important during installation:

- The "5 safety rules" to be used:
  - Disconnect from mains
  - Secure against restart
  - Check for absence of voltage
  - Earth and short circuit
  - Cover or cordon off neighbouring live parts
- Select 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 connection conditions (classic zero balancing, protective earthing, required additional measures, etc.).

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

rigid cable, 1.5 - 2.5 mm<sup>2</sup>

flexible cable (without ferrule), 1.5 - 2.5 mm<sup>2</sup>

## **6.2 Installation**

During installation, choose between:

- Installation in a flush-mounted box
- Installation in a surface-mounted box

### 6.3 Flush-mounted box installation

- Switch off the circuit breaker of the power circuit.
- Connect the phase conductor to connecting terminal L.
- Connect the neutral conductor to connecting terminal N.
- Route the switched phase to the consumer.

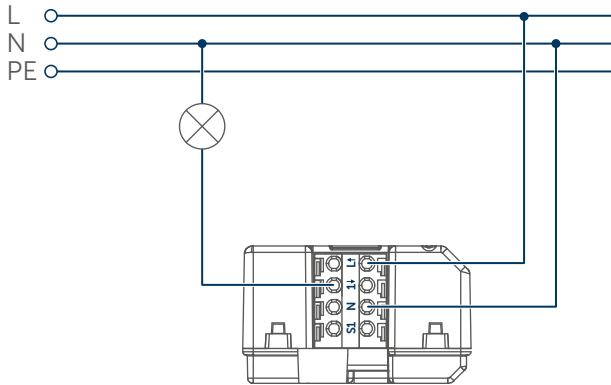


Figure 2

- Connect the external button/switch to connecting terminal S1.

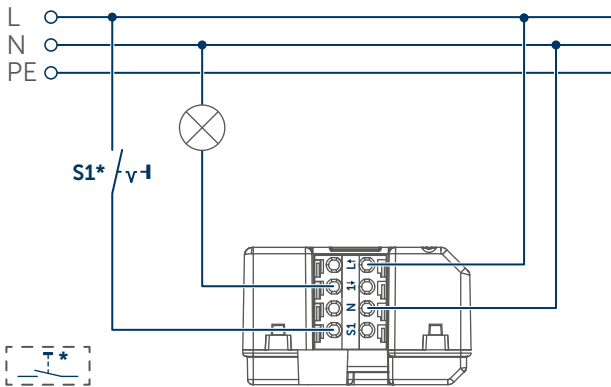


Figure 3

**i** On delivery, the input is configured as a 'button'. You can reconfigure the input as a 'switch' in the Homematic IP app.

- Install the device in a suitable flush-mounted box. You can remove the fixing lug, if necessary.

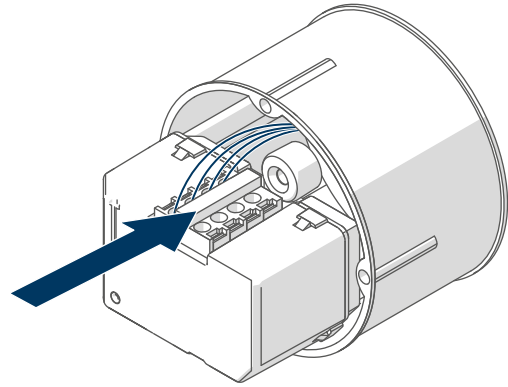


Figure 4

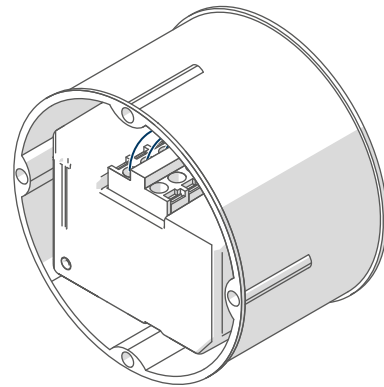


Figure 5

- Close the flush-mounted box with the corresponding cover.
- Switch the circuit breakers of the power circuit on again to activate pairing mode.
- The device is now ready for operation and can be paired with a Homematic IP control unit or another Homematic IP device.

### 6.4 Surface-mounted box installation

- Switch off the circuit breaker of the power circuit.
- Connect the phase conductor to connecting terminal L.

- Connect the neutral conductor to connecting terminal N.
- Route the switched phase to the consumer.

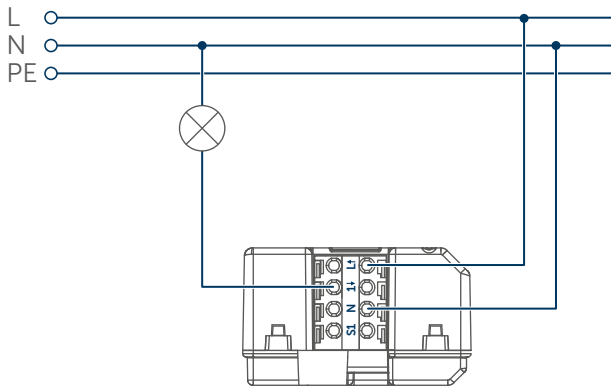


Figure 6

- Connect the external button/switch to connecting terminal S1.

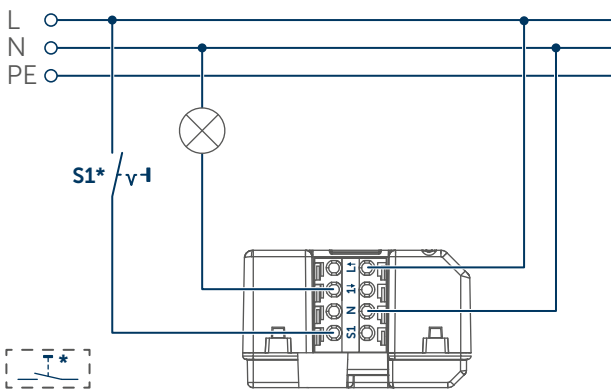


Figure 7

**i** On delivery, the input is configured as a 'button'. You can reconfigure the input as a 'switch' in the Homematic IP app.

- Install the device in a suitable surface-mounted box (e.g. Abox 025 or Abox 040).
- Fix the device to the holding mandrel using the fixing lug.

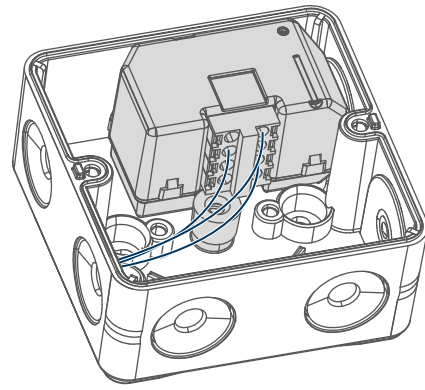


Figure 8

- Close the surface-mounted box using the corresponding cover.
- Switch the circuit breakers of the power circuit on again to activate pairing mode.
- The device is now ready for operation and can be paired with a Homematic IP control unit or another Homematic IP device.

## 6.5 Pairing with a Central Control Unit

- i** Read this entire section before starting the pairing procedure.
- i** Set up your Homematic IP control unit via the Homematic IP app so that you can use Homematic IP devices in the system. Detailed information on this is to be found in the operating manual for the control unit.

Proceed as follows to pair the device with your control unit:

- Open the Homematic IP app.
- Tap on **...More** in the homescreen.
- Tap on **Pair device**.
- Connect the power supply.
- The pairing mode is active for 3 minutes.

- i** You can manually start the pairing mode for another 3 minutes by pressing the system button shortly.

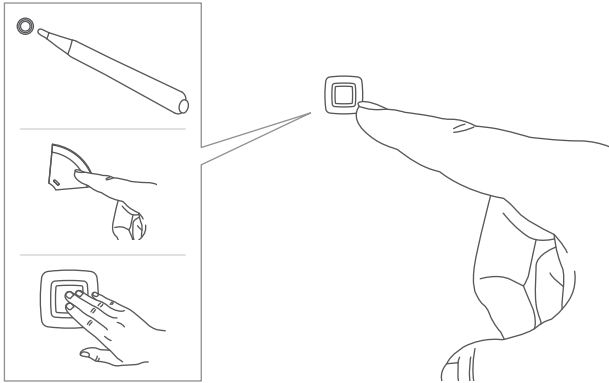


Figure 9






- i** The type of system button depends on your device. Further information is to be found in the device overview.

- The device appears automatically in the Homematic IP App.
- 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 device LED lights up green.
- The device is now ready for use.

- i** If the device LED lights up red to, please try again [\*Flash codes, page 12.\*](#)

- Then follow the instructions in the Homematic IP App.





## 6.6 Direct pairing with a Homematic IP device (push-to-pair)

-  Read this entire section before starting the pairing procedure.
-  Detailed information on push-to-pair and combining with other Homematic IP devices can be found at [www.homematic-ip.com/en/push-to-pair](http://www.homematic-ip.com/en/push-to-pair)
-  If you have already paired the device directly with another Homematic IP device, you must first restore the factory settings before you can pair it with a Homematic IP control unit *see [Restoring the factory settings, page 13](#)*.
-  Please make sure you maintain a distance of at least 50 cm between the devices during pairing.
-  You can leave the pairing mode manually by briefly pressing the system button. This will be indicated by the device LED lighting up red.

Proceed as follows to pair a device with another Homematic IP device:

- Connect the power supply.
- Press and hold the system button for 4 s.
- The device LED starts flashing orange fast.
- Release the system button.
- The pairing mode remains activate for 3 minutes.
- Press and hold the system button of the device to be paired for 4 seconds.
- The device LED starts flashing orange fast.
- Release the system button.

- The device LED lights up green to indicate that pairing has been successful.

-  If the device LED lights up red to, please try again *[Flash codes, page 12](#)*.
-  If no pairing is performed, the pairing mode is automatically cancelled after 3 minutes.
-  If you want to add another device to an existing device group, first activate the pairing mode of the existing device in the group and afterwards the pairing mode of the new device.
-  If you are using several devices in one room, you should pair all devices with each other.

## 7 Operation

After set-up, simple operations are available directly on the device.

- **Press button and release S1:** Depending on its current status, the connected device is switched on and off alternately.

If you have paired the device with a Homematic IP control unit, additional configurations are available in the device settings. You can make the necessary adjustments directly in the Homematic IP App:

- **Behaviour during operation:** Configure the behaviour of the input(s).
  - Alternating switching, depending on the current status
  - On
  - Off

- **input contact mode:** You can specify the mode in which the input contact is to be operated.
  - Button behaviour (press button and release)
  - Switch behaviour when switching between open and closed
- **Switching state on power return:** You can configure which switching state the device or channel should assume after power recovery.
  - Switched off
  - Switched on

## 8 Troubleshooting

### 8.1 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 s.

### 8.2 Command not confirmed

If at least one receiver does not confirm a command, the LED lights up red at the end of the failed transmission. The reason for the failed transmission may be radio interference [see General information about wireless operation, page 13](#). This may be caused by the following:

- Receiver cannot be reached
- Receiver is unable to execute the command (load failure, mechanical blockage, etc.)
- Receiver is faulty

### 8.3 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 used by us, 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 has expired. Homematic IP devices are developed and produced to ensure 100% conformity with 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 LED, and may manifest itself in the device temporarily not working. The device will start working again after a short period (max. 1 hour).

## 8.4 Flash codes

Flash code	Meaning	Solution
1x orange and 1x green light (after connecting the power supply)	Test display	You can continue once the test display has stopped.
Short orange flashes (every 10 s)	Pairing mode active	Enter the last four digits of the device number (SGTIN) in your app, or scan the QR code.
Fast orange flashing	Direct pairing mode active	Enable pairing mode of the device to be paired— <a href="#">see <i>Direct pairing with a Homematic IP device (push-to-pair)</i>, page 10.</a>
Short orange flashes	Transmission of configuration data	Wait until the transmission is completed.
Brief orange flashing (followed by a steady green light)	Transmission confirmed	You can continue operation.
Brief orange flashing (followed by a steady red light)	Operation failed or duty cycle limit reached	Please try again <a href="#">see <i>Command not confirmed</i>, page 11</a> or <a href="#">see <i>Duty cycle</i>, page 11.</a>
6x long red flashes	Error detected	Please see the display on your app or contact your retailer.
Alternating long and short orange flashing	Device software update (OTAU)	Wait until the update is completed.


## 9 Restoring the factory settings

-  The factory settings of the device can be restored. If the device is paired with a control unit, the configurations are automatically restored. If the device is not paired with a control unit, all the settings are lost.


Proceed as follows to restore the factory settings of the device:

- Press and hold the system button for 4 seconds [Fig. 9](#)
- The device LED starts flashing orange fast.
- Release the system button .
- Press and hold the menu button for 4 seconds.
- The device LED lights up green.
- Release the system button to finish restoring the factory settings.

The device performs a restart.

-  If the device LED lights up red to, please try again [Flash codes, page 12](#).


## 10 Maintenance and cleaning

-  The device is maintenance-free for you. 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 for cleaning purposes. They could corrode the plastic housing and label.

## 11 General information about wireless 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 inside buildings can differ greatly from that in open air. 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.

### Declaration of conformity

eQ-3 AG, Maiburger Str. 29, 26789 Leer, Germany, hereby declares that the wireless system type Homematic IP HmIP-FSI16-2 complies 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)

## 12 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 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.

**CE** The CE mark is a free trademark that is intended exclusively for the authorities and does not imply any assurance or guarantee of properties.



If you have any technical questions about the appliance, please contact your specialist dealer.

## 13 Technical specifications

Device short designation	HmIP-FSI16-2
Supply voltage	230 V / 50 Hz
Current consumption	16 A max.
Max. switching capacity	3220 W continuously, 3680 W for 15 min
Standby power consumption	0.25 W
Max. switching current	14 A continuously, 16 A for 15 min
Relay	1x NO contact, 1-pin, $\mu$ -contact
Load type	Ohmic load, $\cos\varphi \geq 0.95$
Cable type and cross section rigid wire	rigid cable, 1.5 - 2.5 mm <sup>2</sup>
cable type and cross section flexible wire	flexible cable (without ferrule), 1.5 - 2.5 mm <sup>2</sup>
Installation	in switch boxes (device boxes) in accordance with DIN 49073-1, Junction boxes (surface-mounting boxes) in accordance with DIN 60670-1
Protection class	II
Degree of protection	IP20
Ambient temperature	-10 to +55°C
Dimensions (W x H x D)	54 x 33 x 41 mm
Weight	49 g
Typical range in open space	180 m
Radio frequency band	868.0–868.6 MHz / 869.4–869.65 MHz
Duty cycle	< 1% per h / < 10% per h
Receiver category	SRD category 2
Maximum radiated power	10 dBm

**Subject to modifications.**

# Free download of the Homematic IP app!



Bevollmächtigter des Herstellers:  
Manufacturer's authorised representative:

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26789 Leer / GERMANY  
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