HomeMatic

Operating Manual (p. 23)

Wireless Switch Actuator 1-channel with power metering, plug adapter:

HM-ES-PMSw1-Pl

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1 Information about this manual

Read this manual carefully before beginning operation with your HomeMatic components. Keep the manual handy for later consultation! If you hand over the device to other persons for use, please hand over the operating manual as well.

Symbols used:

⚠ Attention! This indicates a hazard.

🛈 Note. This section contains important additional information.

2 Hazard information

⚠ The device may only be operated indoors and must be protected from the effects of damp and dust, as well as solar or other methods of heat radiation. 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.

⚠ Do not open the device: it does not contain any components that need to be serviced by the user. There is a risk of electric shock if the device is opened. In the event of an error, please return the device to our service department.

⚠ Do not exceed the capacity specified for the device. Exceeding this capacity could lead to the destruction of the device, to a fire or to an electrical accident.

⚠ If the device has been damaged it has to be put out of operation. Please contact our service department.

⚠ The device may only be connected to a freely accessible power socket outlet.

⚠ Do not connect multiple plug adapters into one another.

⚠ Only use the device with properly installed wall outlets with earth contacts and not with multiple socket outlets or extension cables.

 Do not connect devices into the plug adapter which could cause fire or other types of damage in unattended operation (e.g. irons).

 Remove the plug of the connected device from the plug adapter, whenever you make changes or modifications to the device (e.g. replacing light bulbs).

 The device is not a toy; do not allow children to play with it. Do not leave packaging material lying around, as it can be dangerous in the hands of a child.

3   Function

With the HomeMatic Wireless Switch Actuator 1-channel with power metering, plug adapter you can switch on and off connected consumers (e.g. dryers) or other HomeMatic devices (e.g. dimming actuators) and measure the energy consumption of connected devices (up to 3680 Watt (16 A)).

The HomeMatic Wireless Switch Actuator with power metering combines two functionalities in one device:

- Switching connected devices
- Measuring voltage, current consumption, active power, frequency and energy consumption.

Connected consumers and actuators can be switched on and off via the switching channel.

Via the measuring channel, measured data such as voltage, current consumption, active power, frequency and energy consumption can be send to and received by the HomeMatic CCU.
The measuring data can be transmitted cyclically to and requested directly from the HomeMatic CCU. The collected data will be displayed graphically in the user interface WebUI. Measuring data will not be stored in the device.

🛈 All functions of the device can be configured with a CCU2 via the HomeMatic user interface WebUI. The device can also be integrated into the HomeMatic system and configured via the HomeMatic Configuration Adapter.

Overview and connections
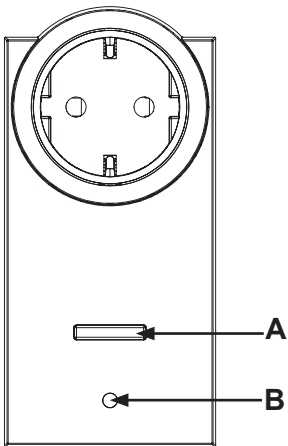
(A) Channel button
(B) Device LED

4 General system information about HomeMatic

This device is a component of the HomeMatic Home Control System. All devices are delivered in a standard configuration. The functionality of the device can also be configured with a programming device and software. The additional functions that can be made available in this way and the supplementary functions provided by the HomeMatic system when it is combined with other components are described in the HomeMatic WebUI Manual. All current technical documents and updates are provided at www.homematic.com.

5 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.

eQ-3 Entwicklung GmbH hereby declares that this device complies with the essential requirements and other relevant regulations of Directive 1999/5/EC. You can find the full declaration of conformity at www.homematic.com.

6 Start-up

6.1 Operation
After the Switch Actuator with power metering has been plugged in, the device is immediately ready for operating and can be connected to a HomeMatic CCU (or to other HomeMatic devices).
Via the channel button (A), connected actuators/consumers can be controlled (switch on and off) with a short button press.

Before being able to use and configure your device in the HomeMatic system to control connected consumers and actuators, the Switch Actuator has to be taught-in first (see sec. 6.2 Teaching-in).

6.2 Teaching-in

 Please read this entire section before starting the teach-in procedure!

To integrate the switch actuator into your HomeMatic system and enable it to communicate with other HomeMatic devices, you must teach it in first. You can teach-in the switch actuator directly to other Home-Matic devices or to the HomeMatic CCU.

 Direct device connections between the switch actuator and other HomeMatic devices can be made only with the switching channel. Connections with the measuring channel must be made via the CCU or the configuration adapter (see sec. 6.2.1 Teaching-in to a HomeMatic Central Control Unit).

6.2.1 Teaching-in to a HomeMatic Central Control Unit

Your device can be conveniently

- controlled and configured,
- connected directly to other devices or
- used in central control programs

by using the HomeMatic software "WebUI". Therefore, your switch actuator has to be taught-in to the CCU first. New devices are taught-in to the CCU via the HomeMatic „WebUI".

> **ℹ** A soon as a component has been taught-in to a Central Control Unit, it can only be connected to other components via this unit.

> **ℹ** Each component can only be taught-in at one CCU.

> **ℹ** During teach-in, please make sure you maintain a distance of at least 50 cm between the HomeMatic devices and the Central Control Unit.

To teach-in your device to the Central Control Unit, proceed as follows:

• Open the "WebUI" user interface in your browser. Enter the URL "http://homematic-ccu2" in your browser. You will then be taken to the homepage of your WebUI. Click the „Teach-in devices" button on the right-hand side of the screen.

Admin
Home page

Alarm messages (0)   Logout

Service messages (0)

Home page   Status and control   Programs and connections   Settings

Teach-in devices   Help

Time: 14:02
Date: 16.09.2013
Sunrise: 06:49
Sunset: 19:12
Current firmware version 2.5.2
Update: Firmware 2.5.4 is available
Login: No password set

- To activate teach-in mode in the next screen, click „Start teach-in mode".
- Teach-in mode remains activated for 60 seconds. An information box shows how much teach-in time remains.

Teach-in devices

	BidCoS-RF – Variant 1: Direct teaching-in	BidCoS-RF – Variant 2: Teaching-in with serial number
BidCoS-RF (Radio)	Teach-in mode not active Start teach-in mode	Serial number Teach-in device
	To activate teach-in mode, click "Start teach-in mode". Meanwhile, please activate the teach-in mode of the HomeMatic device you want to teach-in as well. The remaining time for teaching-in will be displayed. You will find further information in the operating manual of the corresponding devices.	Please enter the serial number and click on the button 'Teach-in device'. Please note: Not every BidCoS-RF device does support teaching-in via serial number.
BidCoS-Wired	BidCoS-Wired – Variant 1: Automatic teaching-in	BidCoS-Wired – Variant 2: Search devices Search devices
	Please start the teach-in mode directly on the device. The device will then be taught-in to the CCU automatically. Further information on the teach-in mode is provided in the respective operating instructions.	Please click on the button "Search devices" The CCU will then automatically teach-in all new HomeMatic Wired devices.

Back   Inbox (1)

- Meanwhile, please activate the teach-in mode of the HomeMatic Switch Actuator to teach-in as well.
- Therefore, press and hold the channel button (A) for at least 4 seconds.

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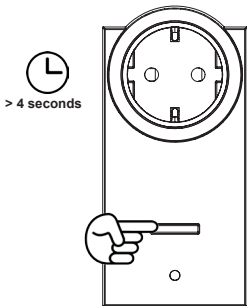
- After a short time, the newly taught-in device will appear in the inbox of your software interface. The button "Inbox (x new devices)" indicates how many new devices have been taught-in successfully.
- If required, you can teach-in additional devices by repeating the steps described above for each device.
- Now configure the newly taught-in devices in the inbox as described in section 6.2.2.

6.2.2 Configuring newly taught-in devices:

Once you have taught-in your device to the CCU, it will be moved to the inbox. Here, you must configure the device and its associated channels in order to make them available for operating and configuration tasks. Give the device a name and assign it to a room. You can also make individual parameter settings.

Now you can use the „WebUI" user interface to control your device, configure it, connect it directly to other devices, or use it in central control unit programs to display the data measured. Please refer to the „WebUI" operating manual for more details (you can find this in the „Downloads" area of the website www.homematic.com).

7 Conditional switching

With the function "Conditional switching", connected consumers or other HomeMatic devices can be switched depending on a defined condition.

Example: You have connected your dryer in the cellar with the switching actuator and want to receive an audio signal that will let you know when the dryer is finished. Therefore, you can connect the switching actuator with a HomeMatic Wireless MP3 Chime via the

CCU and create the following program via the WebUI: As soon as the dryer will consume less than 100 W it is supposed to be switched off. An audio signal shall sound via the MP3 wireless chime at the same time. The switch actuator will send the measured data of the dryer to the CCU, which will transfer the command to the MP3 wireless chime. The chime will play the desired signal and you will know that your dryer has finished running.
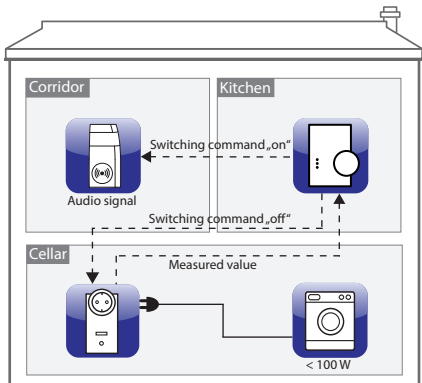
8 Information and error messages indicated by the device LEDs

Flashing sequence	Meaning	Solution
First slow than fast flashing	Teach-in mode active	
1 s lighting up green	Teach-in procedure successful	You can continue with operation.
2 s lighting up green	Teach-in procedure failed	Please try again.
Slow red flashing	Stage before resetting to factory settings	Device is waiting for channel button to be pressed and held in order to carry out a reset, or for a short button press to cancel the process.
Fast red flashing	The factory settings of the device will be restored.	

| 1 x long, 1 x short red flashing | Duty cycle reached | please see sec. "10 Duty cycle" |
| 1 x long, 2 x short red flashing | Device defective | Please contact your specialist dealer. |

9 Restore factory settings

The factory settings of the HomeMatic Switch Acutator with power metering can be restored manually. If you do this, you will lose all your settings.

Before restoring the factory settings, please delete the device from the user interface WebUI first.

To restore the factory settings, please proceed as follows:

- Press and hold down the channel button (A) for at least four seconds until the device LED will start flashing. Release the button again.
- Press and hold down the channel button (A) again for at least four seconds until the device LED will start flashing fast. Release the button again.
- The factory settings of the device are now restored.

10 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 devices are designed and produced with 100% conformity to this regulation.

During normal operation, the duty cycle is not usually fully used up. However, repeated and wireless-intensive teach-in 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, this is indicated by the device LEDs flashing 1 x long and 1 x short and may manifest itself in the device temporarily working incorrectly. The device will start working correctly again after a short period (max. 1 hour).

11 Maintenance and cleaning

The product does not require any maintenance. Enlist the help of an expert to carry out any repairs.
Clean the product 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. Do not use any detergents containing solvents, as they could corrode the plastic housing and label.

12 Scope of supply

- HomeMatic Wireless Switch Actuator 1-channel with power metering, plug adapter
- Operating manual

13 Technical data

Device short description:	HM-ES-PMSw1-PI
Supply voltage:	230 V/50 Hz
Current consumption:	16 A (max.)
Power consumption in standby:	< 0.6 W
Degree of protection:	IP20
Ambient temperature:	-10 to +35 °C
Degree of pollution:	2
Measurement category:	CAT II
Receive frequency:	868.3 MHz
Receiver class:	SRD Class 2
Typ. Radio open air range:	> 150 m
Duty cycle:	< 1 % per h
Max. switching capacity:	3680 W (ohmic load)
Life expectancy relay/ switching cycle:	50000 (16 A, ohmic load)
Relay:	Shutter contact
Switch type:	independently mounted switch
Operating mode:	S1
Withstand voltage:	2500 V
Dimensions (W x H x D):	59 x 123 x 40 mm (not incl. mains plug)
Weight:	167 g

	Measuring range	Resolution	Accuracy
Power	0 to 3680 W	0,01 W	1 % ± 0,03 W*
Current	0 to 16 A	1 mA	1 % ± 1 mA*
Voltage	200 to 255 V	0,1 V	0,5 % ± 0,1 V
Frequency	48,72 to 51,27 Hz	0,01 Hz	0,1 % ± 0,01 Hz

* Frequency range: 2 Hz to 2 kHz

We reserve the right to make any technical changes that constitute an improvement to the device.

Instructions for disposal:

Do not dispose of the device with regular domestic waste. Electronic equipment must be disposed of at local collection points for waste electronic equipment in compliance with the Waste Electrical and Electronic Equipment Directive.

CE The CE sign is a free trading sign addressed exclusively to the authorities and does not include any warranty of any properties.