

Radio switch actuator in SCHUKO housing

Art. No. : FM AS 10 ZS

Operating instructions**1 Safety instructions**

Electrical equipment may only be installed and fitted by electrically skilled persons.

Serious injuries, fire or property damage possible. Please read and follow manual fully.

Danger of electric shock. Always disconnect the device from the socket outlet before carrying out work on the device or load.

Danger of electric shock. Device is not suitable for disconnection from supply voltage. Even when the device is switched off, mains voltage may be present on the load, because only 1 pole is switched off.

Adapter plugs may not be connected in series and must be easily accessible.

The radio communication takes place via a non-exclusively available transmission path, and is therefore not suitable for safety-related applications, such as emergency stop and emergency call.

These instructions are an integral part of the product, and must remain with the end customer.

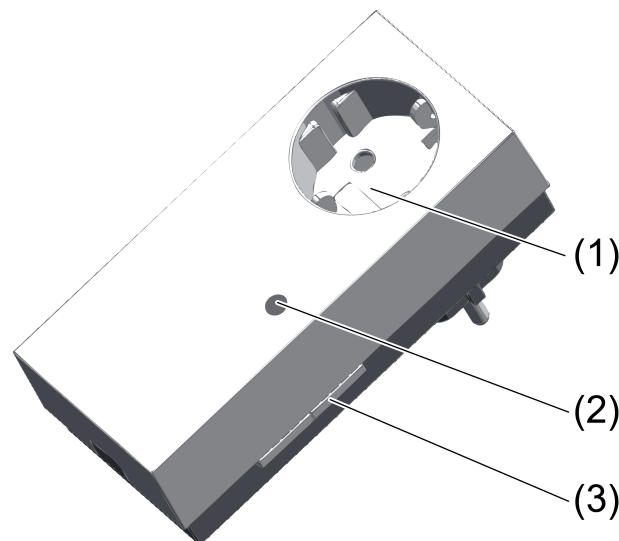
2 Device components

Figure 1

- (1) SCHUKO® socket with increased contact protection
- (2) Red status LED, covered
- (3) Button **Prog**

3 Function**System information**

This device is a part of the eNet system.

High transmission reliability at a radio frequency of 868 MHz is achieved by the transmission behaviour and bidirectional data transfer.

The range of a radio system depends on various external circumstances. The range can be optimised by the choice of installation location.

This device complies with the requirements of the R&TTE Directive 1999/5/EC. Declaration of Conformity and further information on the eNet system can be found on our website.

The device may be operated in all EU and EFTA countries.

Intended use


- Switching of lighting
- Operation with suitable eNet radio transmitters
- Mounting of SCHUKO® sockets indoors

Product characteristics

- Status feedback to radio transmitter
- Scene operation possible
- Switchable output with **Prog** button
- Status indicator via LED

Can be set with eNet server:

- Push-button function
- Flash function
- Run-on time
- Switch-on delay / switch-off delay
- Operation as NO or NC contacts
- Switch-off warning
- Minimum switching repeat time
- Operation locks
- Continuous on, Continuous off

 If settings are changed with the eNet server, operation and signalling could vary from what is described here.

 The parameter list is on the Internet in the online instructions for this device.

Supplementary functions with eNet server:

- Update of the device software
- Repeater function
- Reading of error memory

Behaviour after mains voltage return

The response after mains voltage return can be configured with the eNet server. Default setting: Off.

4 Operation

Operation with radio transmitters

Operation is with radio transmitters, please observe the radio transmitter instructions.

Operation with Prog button

- Press **Prog** button briefly.
The load switches on or off.
Status-LED lights up: output is switched on.
Status-LED off: output is switched off.

5 Information for electrically skilled persons

5.1 Fitting and electrical connection



DANGER!

Electrical shock when live parts are touched.

Electrical shocks can be fatal.

Always disconnect the device from the socket outlet before carrying out work on the load!

Connecting the device

To ensure good transmission quality, keep a sufficient distance from any possible sources of interference, e.g. metallic surfaces, microwave ovens, hi-fi and TV systems, ballasts or transformers.

- Insert device into a socket outlet.
- Insert load into the device.
- Carry out commissioning (see Commissioning chapter).

5.2 Commissioning



DANGER!

Electrical shock when live parts are touched.

Electrical shocks can be fatal.

During commissioning, cover the parts carrying voltage on radio transmitters and actuators and in their surrounding area.

- i** The actuator can also be commissioned with eNet server as an alternative to the commissioning described here.

Connecting actuator to radio transmitters

Load is switched off.

- Press the **Prog** button for longer than 4 seconds.

The load switches on.

The status LED flashes after 4 seconds and the load switches off. The actuator is in programming mode for approx. 1 minute.

- Switch radio transmitter to programming mode (see radio transmitter instructions).
- Trigger telegram on the radio transmitter.

The status LED of the actuator lights up for 5 seconds.

The actuator is connected to the radio transmitter. The actuator and radio transmitter exit the programming mode automatically.

- i** If the status LED of the actuator flashes 3 times at 1-second intervals for approx. 5 seconds, then the programming operation was not successful. All the memory locations in the actuator or radio transmitter are occupied.
- i** All On and All Off buttons of a radio transmitter are connected to the actuator automatically as soon as the first connection to the radio transmitter takes place.
- i** Scene buttons must be connected separately.

Disconnecting connection to a radio transmitter

- Carry out the same steps as when connecting (see Connecting actuator to radio transmitters).

The status LED flashes quickly for 5 seconds. The actuator is disconnected from the radio transmitter. The actuator and radio transmitter exit the programming mode automatically.

- i** If there several connections or scene buttons for a radio transmitter, all connections must be disconnected individually.
- i** All On and All Off buttons of a radio transmitter are disconnected automatically as soon as the last connection of the corresponding output to the radio transmitter is disconnected. Manual disconnection is not possible.

Resetting the device to the factory setting

All connections to radio transmitters are disconnected and parameters are reset to default setting.

- i** The connections in the radio transmitters are preserved and must be deleted separately.

Load is switched off.

- Press the **Prog** button for at least 20 seconds.

The load switches on.

The status LED flashes after 4 seconds and the load switches off. The status LED flashes faster after 20 seconds.

- Release **Prog** button and press briefly once again within 10 seconds.

The status LED flashes more slowly for approx. 5 seconds.

The device is reset to default setting.

6 Appendix



The icon confirms the conformity of the product to the relevant guidelines.

6.1 Technical data

Rated voltage	AC 230 V ~
Mains frequency	50 / 60 Hz
Ambient temperature	-5 ... +35 °C
Degree of protection	IP 20
Switching current at 35 °C	
Ohmic	16 A (AC1)
Fluorescent lamps	4 AX
Minimum switching current AC	100 mA
Contact type	μ
Standby power	0.5 W
Connected load at 35 °C	
Incandescent lamps	2300 W
HV halogen lamps	2000 W
Tronic transformers	1500 W
Inductive transformers	1000 VA
HV-LED lamps	typical 500 W
Compact fl lamp.	typical 500 W
Fluorescent lamps, uncompensated	920 VA
Capacitive load	690 VA (560 μF)
Dimensions W×H×D	57×127×78 mm
Radio frequency	868.3 MHz
Transmitting power	max. 20 mW
Transmitting range in free field	typical 100 m

6.2 Parameter list

Settings window

Device settings

Parameters	Setting options, Basic setting	Explanations
Manual commissioning	On, Off Basic setting: On	Blocks manual commissioning for all device channels. In the "Off" setting, the device cannot be reset to the factory setting.
Repeater mode	On, Off Basic setting: Off	In addition to its other functions, the device can be used as a repeater. In the "On" setting, the device repeats all the received telegrams.

Settings, channel

Parameters	Setting options, Basic setting	Explanations
Manual commissioning	On, Off Basic setting: On	Blocks manual commissioning for the device channel. In the "Off" setting, the device cannot be reset to the factory setting.
Operating mode	Switching Buttons Flashing Continuous on Continuous off Basic setting: Switching	<p>Switching After switch-on, the device remains stable in the "On" state, and stable in the "Off" state after switch-off.</p> <p>Buttons The device switches "On" when any channel button of a radio transmitter is pressed and "Off" when the button is released. It is irrelevant whether the "On" or "Off" channel button is pressed.</p> <p>Flashing Switch-on starts flashing and switch-off stops flashing. The default flash frequency is 1 Hz. This frequency is also the maximum flash frequency. The flash frequency can be changed using parameters. The parameter "Switch-off delay" is used for the pulse time and the parameter "Switch-on delay" for the pause time.</p> <p>Continuous on The output switches to continuously "On". All operations of radio transmitters and the Prog button are ignored.</p> <p>Continuous off The output switches to continuously "Off". All operations of radio transmitters and the Prog button are ignored.</p>
Local Operation	On, Off Basic setting: On	Blocks the output for operation using the Prog button.

Manual switch-off of the run-on time	On, Off Basic setting: Off	Allows manual switch-off of a running run-on time. If the parameter is switched off, then a switch-off command will also switch the actuator on. This parameter is directly connected to the "Run-on time" parameter.
Switch-on delay	0 s ... 24 h Basic setting: 0 s	The load switches on after a delay. Repeated switch-on commands restart the delay time. If the load has not yet been switched on due to the delay when a switch-off command comes, then the load will remain off. In Flashing operating mode, the pause time is set using this parameter. Comment: The set times apply to operation using radio transmitters. The relay is switched immediately when the Prog button is pressed.
Switch-off delay	0 s ... 24 h Basic setting: 0 s	The load switches off after a delay. Repeated switch-off commands restart the delay time. If the load has not yet been switched off due to the delay when a switch-on command comes, then the load will remain on. In Flashing operating mode, the pulse times are set using this parameter. Comment: The set times apply to operation using radio transmitters. The relay is switched immediately when the Prog button is pressed.
Run-on time	0 s ... 24 h Basic setting: 0 s	As soon as a run-on time has been entered, the actuator will no longer remain on permanently, but only for the length of the run-on time. The run-on time is restarted if actuation is repeated. This parameter is directly connected to the "Manual switch-off of run-on time" parameter. Comment: The set times apply to operation using radio transmitters. The relay is switched immediately when the Prog button is pressed.
Behaviour after the end of the disabling function	On Off no change Last value Basic setting: No change	Behaviour of the output when a block is removed.


Behaviour on voltage return	On Off Last value Configured brightness Basic setting: Off	Defines the behaviour of the output after voltage return.
Timer behaviour, voltage return	Off Restart Basic setting: Off	Specifies whether the timers for switch-on delay, switch-off delay and run-on time remain off after voltage return or whether they restart. Directly connected to the parameters "Switch-on delay", "Switch-off delay" and "Run-on time".
Switch-off warning	On, Off Basic setting: Off	If the switch-off warning is active, the light is not switched off directly. The light goes off 30, 15 and 6 seconds before permanent switch-off. During the switch-off warning, a switch-on telegram effects direct switch-on. It is not possible to terminate the time using a switch-off telegram.
Priority, lock-out protection	0...4 Basic setting: 1	Specifies the priority for recalling and removing a scene of type Lock-out protection for the channel.
Priority, restraint	0...4 Basic setting: 2	Specifies the priority for recalling and removing a scene of type Restraint for the channel.
Priority, wind alarm	0...4 Basic setting: 3	Specifies the priority for recalling and removing a scene of type Wind alarm for the channel.
Priority, sun protection	0...4 Basic setting: 0	Specifies the priority for recalling and removing a scene of type Sun protection for the channel.
Priority, twilight	0...4 Basic setting: 0	Specifies the priority for recalling and removing a scene of type Twilight for the channel.
Switch-off on brightness overshoot	On, Off Basic setting: On	Allows automatic switch-off according to the brightness. If the parameter is On, then the light controller switches off automatically when the brightness setpoint is greatly exceeded. This parameter is not yet active, as a light controller has not yet been implemented.

Switch-on on brightness undershoot	On, Off Basic setting: Off	Allows automatic switch-on according to the brightness. If the parameter is On, then the light controller switches on automatically when the brightness setpoint is greatly undershot. We recommend only using the parameter in connection with the parameter "Switch-off on brightness overshoot". This parameter is not yet active, as a light controller has not yet been implemented.
Invert switching output	On, Off Basic setting: Off	Inverts the switching output from NO contact function (factory setting) to NC contact function
Minimum switching repeat time	100 ms ... 10 sec Basic setting: 100 ms	Limits the switching speed of the device by increasing the value, in order to protect the load, for example. Only when the set time has elapsed is switching possible again. The last command during the blocking time is executed after a delay. The switching repeat time starts after each switching operation.
Operating hours	0...65535 Basic setting: Current value	The time is counted during which the load is physically switched on (relay contact closed). This parameter can be reset to "0", for example after exchanging the load. The Reset button is used to reset the counter to "0". The device must be programmed to apply the change.

Information window

During channel selection in the Information window, the following settings can be made or values displayed.

Display value	Explanations
Load state	The load can be switched on or off.
Restraint	Display of forced position status.
Switching cycle counter	Display of the switching cycles with the factor 10, e.g. the value 5 x 10 is displayed for 50 switching cycles.
Total operating hours	Display of the operating hours since the start of operation.
Operating hours	Display of the operating hours since the last restart in the Settings window Einstellungen .

 The value can be updated using the arrow next to the display values.

6.3 Warranty

We reserve the right to make technical and formal changes to the product in the interest of technical progress.

We provide a warranty as provided for by law.

Please send the device with a description of the defect to our central customer service office.

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