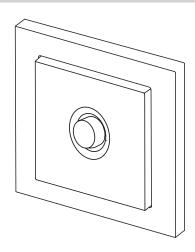
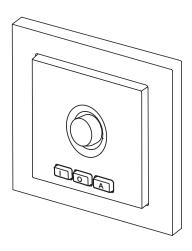
# Easywave,

#### Models



RTS40E5001B01 AUTOMATIC



RTS40E5001B02 ON/OFF/AUTO

# **Technical Details**

Frequency: 868.30 MHz
Radiated power: 0.89 mW
Modulation: FSK

Coding: Easywave A/B

EasywavePlus

POTA

Power supply: 1x 3V battery, CR2032

Temperature: -20 °C to +60 °C

Range: free-field: approx. 150 m

buildings: approx. 30 m

Brightness range: 1 lx to 150 lx
After-run time: 5 s to 131 min
Inspection density: approx. 16 m²

Dimensions (w/l/h):

cover: 55/55/12 mm
plate: 71/71/1.5 mm
Weight: 45 g (including battery and cover frame)

#### Scope of Delivery

Transmission module, battery CR2032, cover, mounting plate, cover frame, adhesive pad, operating instructions

#### Intended Use

Only use the device as a motion detector and only for operating Easywave radio receivers.

The manufacturer shall not be liable for any damage caused by improper or non-intended use.

## **Safety Advice**



Before using the Radio Wall Switch, carefully read through the operating instructions!

Also note the operating instructions for the receiver(s)!

Do not make any unauthorised alterations or modifications to the RadioWall Switch!

Have faulty Radio Wall Switches checked by the manufacturer!

Keep the batteries out of the reach of children!

#### Function

The RTS40 is a battery-operated wireless motion detector for indoor use. Movement is detected and information sent via an Easywave message, and the connected Easywave radio receivers are operated in line with their selected operating mode. Motion detection can optionally also be brightness-dependent.

There are two device options available:

#### **AUTOMATIC operation (RTS40E5001B01)**

The motion detector automatically reacts as per the programmed values.

ON/OFF/AUTO operation (RTS40E5001B02)

The function of the motion detector can be operated as permanently  $\mathbf{ON}$  (button  $\mathbf{I}$ ), permanently  $\mathbf{OFF}$  (button  $\mathbf{O}$ ) or on automatic operation ( $\mathbf{A}$  button).

## After-run time

The motion detector sends an ON data telegram (A) when it detects a movement and an OFF data telegram (B) after the adjustable after-run time has elapsed. The after-run time can be set to a period ranging from 5 seconds to 131 minutes. For this purpose, set the number of seconds (in steps of 5) via the "SEC x5" setting and the desired number of minutes via the "MIN" setting. As an option, the after-run time set in this way can be multiplied by a factor of 1 to 11 via the time multiplier "x".

The after-run time can be re-triggered. If another movement is detected during the after-run time, the after-run time starts again from the beginning. In doing so, the light sensor is not evaluated.

## Light sensor

The motion detector has a switchable light sensor. As soon as the light sensor is activated, detected movements only trigger a switching command if the measured brightness is **below** the adjustable brightness threshold.

The brightness threshold can be set in 12 steps, ranging from 1lx to 150lx.

When re-triggering the after-run time, the light sensor is generally not evaluated, as the switched light source usually has an influence on the value measured.

#### **Trigger function**

The trigger function is used to control automatic staircase lighting systems or the TIMER function of Easywave receivers.

To select the trigger function, set the **multiplier x** to **0** (see "**Programming**" on page 3). In this mode, the motion detector sends a data telegram (A) to the receiver **every** time motion is detected. Together with the corresponding Easywave receivers, this data telegram can be used to re-trigger the TIMER function or e.g. an automatic staircase lighting system.

In this mode, the set after-run time specifies the minimum interval between two transmission processes. If the after-run time is set to 2 minutes and 30 seconds, e.g. the motion detector transmits a signal a maximum of every 2.5 minutes as long as motion is detected. If no motion is detected after the after-run time has elapsed, no data telegram is transmitted. The transmission interval can be a minimum of 5 seconds and a maximum of 11:55 minutes.

The light sensor can be used normally in this mode. To deactivate the trigger function, set the multiplier to a value > 0 (1-11).

# **General information** (Figure 1)

The motion detector is equipped with a PIR sensor and suitable for ceiling and wall installation. The sensor reacts to changing heat radiation. The motion detector should therefore not be installed near heat sources, air currents or objects that move

The distance between the installed object and light sources should be at least  $0.5\ \mathrm{m}.$ 

No heat radiation is detected through barriers (walls, glass panes, etc.).

Make sure there is no interference with the wireless connection. Do not mount the device in a distribution box, in metal casings, in direct proximity to large metal objects, on the floor or close to it.

The motion sensor is ready for operation 10 seconds after the battery is inserted.

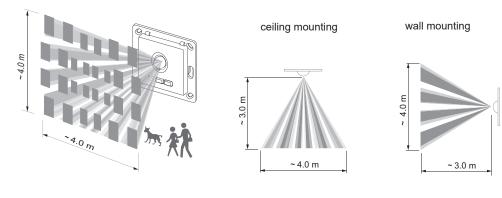


Figure 1

## Mounting (Figure 2)

"Settings")

- Screw or stick the mounting plate (E) to the installation site.
- Insert the enclosed battery (C) in the transmitter module (B).
  - The positive pole has to be visible!
- Program the transmission code into the receivers (G). For this, put the receiver into programming mode. Please read the operating instructions supplied with the receivers.
   Now press the W button (Easywave code A) or F (Easywave code B) on the transmitting module (B). Set the required time and brightness settings or use the factory settings (see
- Place the cover frame (D) on the mounting plate (E), latch the transmission module (B) onto the snap arm (F) and clip the cover (A) onto the transmitter module (B).

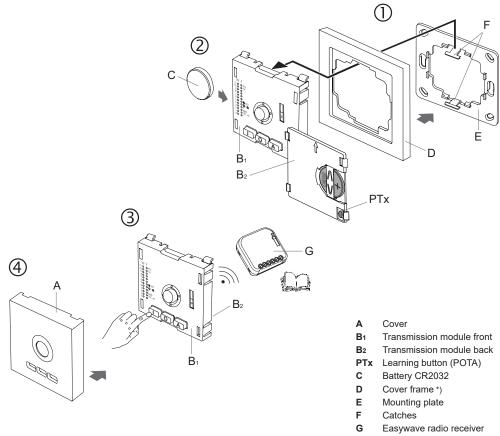


Figure 2

\*) If necessary, the cover frame can be replaced with frames from other manufacturers with a cutout size of 55x55 mm.

#### **PROGRAMMING**

Start the programming mode by pressing the **programming button P**. The programming button is located under the cover on the motion detector (see figure 2). The current after-run time is paused and the settings for the motion detector can be changed.

Select the function to be set with the **F** button and then the desired value with the **W** button.

To save the settings made (see the table on pg. 3), exit the programming mode using the **SET button**.

The after-run time is restarted with the current settings.

The programming stops after 30 seconds have elapsed without pressing the button or by pressing the **programming button P** again.

This discards all the settings made and the previous after-run time applies again.

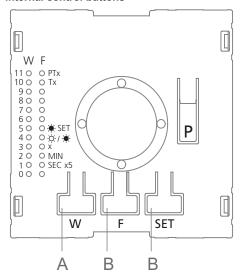
Each time you exit the programming mode, the motion detector ignores all motions for five seconds and only becomes active again after this switching delay. In this way, the detection range for the motion detector can be exited after programming without triggering it.

The RTS40 is preset ex-factory as follows:

- Light sensor deactivated.
- After-run time of seven minutes.

# **PROGRAMMING**

## Internal control buttons



P Programming button

W Button W: set the values or

transmission code **A** LED W: show selected value

Button F: select the function or

transmission code B

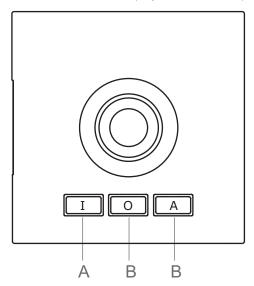
LED F: show selected function

**SET** Save the chosen settings



The Tx LED lights up red during a transmission process when a button is pressed.

# External control buttons (only RTS40E5001B02)



Button **I** Switch load **ON** (transmission code **A**)

The motion detector is deactivated

Button **O** Switch load **OFF** (transmission code **B**)
The motion detector is deactivated

Button A Automatic operation
The motion detector is activated
(switching delay 5 seconds)
(transmission code B)

Function	Operation [press the button]	LED view	Comment
Set after-run time in seconds SEC x5 Sec			Set follow-up time in 5-second steps (max. 55 s)
	1. <b>P</b> Button	LED W+F light up in accordance with the default settings	30 seconds after after-run time the final time you activate the button, there is automatic break-off
select the function	2. <b>F</b> Button	until the LED <b>SEC x5</b> lights	
set the value	3. <b>W</b> Button	LEDs W0 to W11 lights in accordance with your selection	in steps of 5 seconds (W0=0s, W1=5s, W2=10s W11=55s)  If 0 minutes are set, the smallest possible afterrun time of 5 seconds applies to the W0 setting.
	4. <b>SET</b> Button		Selection saved
Set after-run time in minutes MIN			Set follow-up times in minutes from 1 min to 11 min
	1. <b>P</b> Button	LEDs W+F light up in accordance with the default settings	30 secondsafter after-run times the final time you activate the button, there is automatic break-off
select the function	2. <b>F</b> Button	until the LED <b>MIN</b> lights	
set the value	3. <b>W</b> Button	LEDs W0 to W11 lights in accordance with your selection	in steps of 1 minute (W0=0 min, W1=1 min, W2=2 min W11=11 min)
	4. <b>SET</b> Button		Selection saved
Set the t	ime multiplier	X	The progammed after-run time (minutes + seconds) x factor required (1 to 11) max. time: 11 x (55 s+11 min) = 131 min (2h+11 min)
	1. <b>P</b> Button	LEDs W+F light up in accordance with the default settings	30 seconds after the final time you activate the button, there is automatic break-off
select the function	2. <b>F</b> Button	until the LED <b>X</b> light	
set the value	3. <b>W</b> Button	LEDs W1 to W11 lights in accordance with your selection	set time x factor required (W1 = x1, W2 = x2 W11= x 11) (W0=Trigger function, see page 1)
	4. <b>SET</b> Button		selection saved
Activate	deactivate lig	ht sensor 🔆 / 🛊	If the light sensor is switched off, the motion detector operates independently of the selected brightness value.
	1. <b>P</b> Button	LEDs W+F light up in accordance with the default settings	30 seconds after the final time you activate the button, there is automatic break-off
select the function	2. <b>F</b> Button	until the LED 🌣 / 🔅 lights	
	3. W Button	LED W4 lights: Sensor ON LED W4 off: Sensor OFF	
	4. SET Button		Selection saved
Setting t	he brightness	threshold *SET	Set the brightness value below which the motion detector should operate.
	1. <b>P</b> Button	LEDs W+F light up in accordance with the default settings	30 seconds after the final time you activate the button, there is automatic break-off
select the function	2. <b>F</b> Button	until the LED ☀ SET lights	LED W, blinking, shows the currently measured brightness
set the value	3. W Button	LEDs W0 to W11 lights in accordance with your selection	W0 to W11 = 1 lx to 150 lx

Selection saved



Any number of settings can be changed at the same time and then saved with the **SET** button.

4. **SET** Button

selection

## **Remote learning function**

With the remote learning function POTA (Programming Over The Air), it is possible to programme a receiver that is already installed and can no longer be accessed, if it supports this function. All that is needed is a POTA-capable transmitter that is already taught-in. Only the **W** and **F** (or **I** & **O**) buttons can be used for the POTA functions!

A detailed POTA programming manual is available on our website:

https://www.eldat.de/pota\_en.pdf

or you can request support from our customer service

# **Battery check**

The transmitter has a battery check function, which checks the capacity of the battery during the transmission process.

After completing the transmission process, an undervoltage data telegram is automatically sent if the battery is runs out. In addition, the light around the sensor flashes red for approx. 3 seconds in this case.

When this happens, change the battery for the motion detector immediately to ensure full functionality.

The undervoltage data telegram can be evaluated using suitable Easywave receivers. For more information, please refer to the operating instructions for the respective receiver.

## **Trouble shooting**

If the controller does not react to the motion detector:

- Replace the battery.
- Check that the wireless connection at the installation site is not impaired between the transmitter and the receiver.
- If necessary, re-programme the transmission code into the receiver.
- Other wireless devices using the same frequency and working in direct proximity may interfere with the device.
- With the RTS40E5001B02, ensure that the automatic mode is active. If necessary, press the **A** button to switch to automatic mode.

#### Disposal

Waste electrical products and batteries may not be disposed of with household waste!

Dispose of the waste product via a collection point for electronic scrap or via your specialist dealer.



Put the packaging material into the recycling bins for cardboard, paper and plastics.

## Warranty

We will remedy defects on the device based on material or production errors or exchange the device within the statutory warranty period.

Any unauthorised tampering with, or modifications to, the product shall render this warranty null and void.

# Conformity

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ELDAT EaS GmbH hereby declares that the radio equipment type RTS40 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.eldat.de

#### **Customer Service**

If the device does not work properly despite proper handling or in case of damage, please contact the manufacturer or your retailer.

#### **ELDAT EaS GmbH**

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