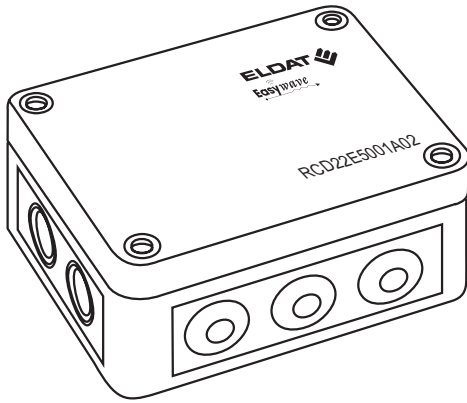


Model



RCD22E5001A02

Technical Data

Frequency:	868.30 MHz
Modulation:	FSK
Coding:	Easywave
Output:	RS232 interface
Power supply:	230 V AC 50 Hz
Power consumption:	1.5 W standby
Degree of Protection:	IP66 (in delivery state)
Operating temperature:	-20 °C to +60 °C
Dimensions (w/l/h):	34.5/89.6/62.8 mm
Weight:	260 g

Scope of Delivery

Radio control RCD22, mounting accessories, operating instructions

Intended Use

The device is only intended to be used for transmitting and receiving Easywave radio telegrams and via RS232 interface using hexadecimal values.

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

Safety Advice



Carefully read through these instructions before connecting and operating the unit!

Caution! Electrical installation may only be carried out by a qualified electrician; otherwise there is a risk of electric shock or fire.



Observe the applicable laws, standards and regulations as well as the manufacturer's instructions for the devices to be operated!

The control unit may not be operated by children or unauthorised persons!

Have faulty units checked by the manufacturer!! Do not make any modifications to the device!

Function

The RCD22 transmits and receives Easywave telegrams. It is controlled via an RS232 interface in HEX format. The control and evaluation software has to be created by the user.

Where environmental conditions are unfavorable, the external antenna ACC-ANT50-03-21P can be connected to improve wireless reception. This is not included with the product, but can be ordered separately.

INSTALLING THE RECEIVER

Mounting

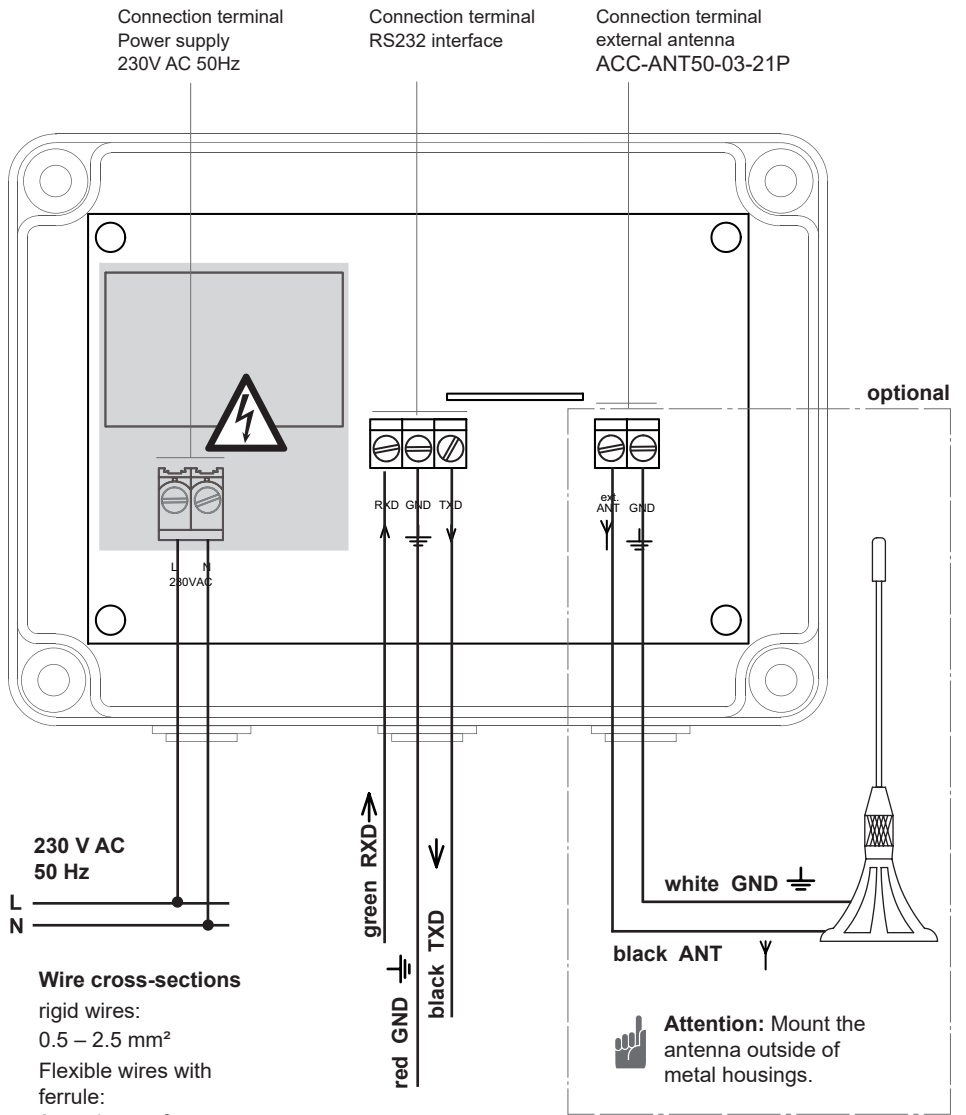
Do not install the control near the floor or in niches, as there may be a radio shadow here. When mounting on metal surfaces, a minimum distance of 10 cm should be maintained.

The receiver must be installed, connected according to the connection diagram and put into operation by a qualified electrician.

1. Switch off the power supply.
2. Unscrew the housing cover.
3. Attach the controller to the installation site. Use the screw gears of the cover screws.

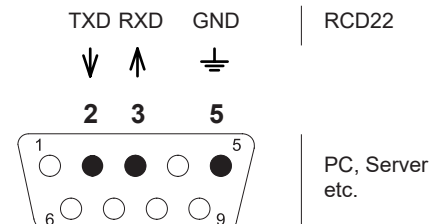
4. Push the connection cable through the double-membrane seals. Pull the cable back briefly to form the seal.
5. Connect the connecting cables for the RS232 interface to GND, TXD and RXD according to the „Terminal assignment RCD22“.
6. Connect the connecting cables for the power supply according to the terminal assignment.
7. Screw the housing cover back on.
8. Switch on the power supply.

Terminal assignment RCD22



Terminal assignment 9-pin Sub-D socket

Connection cable	RCD22	Pin	PC
black	TXD →	2	→ RXD
green	RXD ←	3	← TXD
red	GND	5	GND



DATA EXCHANGE

Establish connection

To establish a connection to the RCD 22, configure a serial interface with the following parameters:

Transmission speed:	9,600 Bd
Start bit:	1
Data bits:	8
Stop bit:	1
Parity:	none
Hardwarehandshake:	no
XOn/XOff:	no

The RCD22 sends a life telegram to the PC every 2 seconds. (A5 04 1B 00 0A 0D). This enables you to check whether the interface settings have been made correctly or not.

The telegram structure of the life telegram is described in the adjacent table.

Telegram structure: life telegram

Byte	Content [HEX]	Description
1	A5	start ID for telegram
2	04	number of following bytes
3	1B	Request to send to PC
4	00	Request to send to PC
5	0A	End ID 1
6	0D	End ID 2

Receive Easywave telegram

The RCD22 forwards all received Easywave telegrams via the serial interface. You can see the structure of the telegrams in the adjacent table. By looking at the entries marked as X, Easywave transmitters and their buttons can be clearly distinguished from one another.

Telegram structure: Receiving a Easywave telegram

Byte	Content [HEX]	Description
1	A5	start ID for telegram
2	08	number of following bytes
3	30	„Transmitter telegram“ identifier
4	XX (=xxxxxxx binary)	reserved
5	XX (=xxxxxxx binary)	serial number Bit 16- 23
6	XX (=xxxxxxx binary)	serial number Bit 8-15
7	XX (=xxxxxxx binary)	serial number Bit 0-7
8	XX (=xxxxxxx binary)	button information Bit 0-7
9	0A	End ID 1
10	0D	End ID 2

Transmit Easywave telegram

To trigger a transmission process, transmit a valid transmission telegram to the RCD22 via the RS232 interface.

The telegram structure can be found in the adjacent table. All entries marked as X can be freely selected by the user.

The RCD22 is able to send out any Easywave telegrams. Only the first 8 bits of an Easywave serial number cannot be freely selected for security reasons. This means that it is not possible to duplicate received Easywave telegrams. Only self-selected serial numbers can be sent out.

Telegram structure: Transmit Easywave telegram

Byte	Content [HEX]	Description
1	A5	start ID for telegram
2	08	number of following bytes
3	30	„Transmitter telegram“ identifier
4	00	reserved
5	XX (=xxxxxxx binary)	Bit 16-23 of the serial number to be sent
6	XX (=xxxxxxx binary)	Bit 8-15 of the serial number to be sent
7	00	Bit 0-7 of the serial number to be sent, not manipulable
8	0X (=00000xx binary)	button information, Bit 0 and Bit 1 manipulable
9	0A	End ID 1
10	0D	End ID 2

General Information

Disposal

Waste electrical products should 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 within the statutory warranty period or exchange the device.

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

Conformity

Hereby, ELDAT EaS GmbH declares that the radio equipment type RCD22 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

Schmiedestraße 2
15745 Wildau

Germany

Phone: + 49 (0) 33 75 / 90 37-0

Fax: + 49 (0) 33 75 / 90 37-90

Internet: www.eldat.de

E-Mail: info@eldat.de