

## Connected Home Receiver

RCR110.2ZB



### For boiler, pump and DHW release

- Mains-powered receiver AC 230 V
- Communicates with Connected Home Hub via Zigbee network
- Two voltage-free contacts for boiler/pump release or DHW switch
- LED indication of operating state
- Manual override of relay outputs
- Firmware upgrade over the air via Zigbee

## Use

The RCR110.2ZB is part of Siemens Connected Home ecosystem.

Typical application:

- Residential apartments
- Single family homes

To control DHW and the following plant components:

- Gas, oil boilers or non-reversible heat pumps
- Zone valves
- Pumps
- Heat exchanger
- Continuous-flow water heater
- Small water heating systems

## Functions

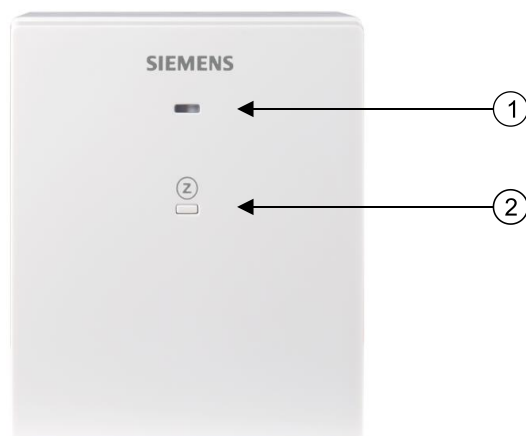
- Network joining initiator
- Configurable function via mobile application "Connected Home" (downloadable from Google Play™ or Apple App Store®) as:
  - Zigbee network repeater
  - Pump/boiler releaser
  - Pump/boiler releaser and DHW switch
- Boiler or pump releaser based on heat demand from individual rooms/zones
- Independent DHW switch controllable via mobile application
- Manual override of relay outputs
- Support of factory reset
- Wireless communication

## Mechanical design

The RCR110.2ZB consists of two parts:

- Plastic housing which accommodates the electronics
- Mounting plate

### Operation and settings



No.	Description
1	LED for operating state indication
2	Button for user operation

## Type summary

Type	Stock number	Description
RCR110.2ZB	S55772-T110	Connected Home Receiver

## Ordering

When ordering, indicate product number, stock number and description.

## Inbox item

Items	Quantity
RCR110.2ZB	1
Set of mounting accessories	1
Mounting instructions	1
Wiring sticker	1

## Equipment combinations

### Connected Home Hub

Product number	Stock number	Description
GTW100ZB	S55772-T109	Connected Home Hub

### Wireless actuator

Product number	Stock number	Description
SSA911.01ZB	S55181-A101	Radiator Valve act. Zigbee

## Product documentation

Title	Document ID
Mounting instructions	A6V11562443
Quick start guide	A6V12680334
CE declaration	A5W00218224A
UKCA declaration	A5W00218226A
Product environmental declaration	A5W90009801

Related documents such as environmental declarations, CE declarations, and so on, can be downloaded at: <http://siemens.com/bt/download>.

**Safety**

**⚠ CAUTION**



**National safety regulations**

Failure to comply with national safety regulations may result in personal injury and property damage.

- Observe national provisions and comply with the appropriate safety regulations.

**Mounting**

- The device is suitable for wall mounting and surface mounting.
- Enclose the conductors in a conduit when surface mounting.
- Reserve at least 10 cm of free space around the receiver for ventilation.
- Avoid direct solar radiation.
- Adhere to allowed ambient conditions.
- Install the receiver close to Connected Home Hub if possible. The communication range in a building is typically 60 m without any blockades. Note that the range can vary because walls, floors, wireless interference and other factors may reduce the signal strength.
- Choose the location to ensure largely interference-free reception. When mounting the receiver, observe the following:
  - Do not mount in a control panel
  - Do not mount on metallic surfaces
  - Do not mount near 2.4 GHz wireless electronic devices such as PCs, WLAN routers, microwaves, and so on
  - Do not mount near constructional elements with fine metal or large metallic structures such as a distribution box

**Wiring**

- The AC 230 V mains supply line must have an external circuit breaker with a rated current of no more than 16 A.
- Ensure that wiring, protection and grounding comply with local regulations.
- Screw down all terminals regardless of whether cables are connected or not.
- Screw down the cables tightly and make sure no bare copper is exposed.
- Observe local regulations for wiring size and the rated value of the installed overcurrent protection device.
- Disconnect from power supply before removing the unit from its mounting plate.
- Ensure that the device is not connected to power during wiring.

**Maintenance**

The device is designed for maintenance-free operation.

## Open Source Software (OSS)

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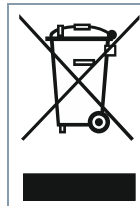
### Software license overview

These devices use Open Source Software (OSS). All Open Source Software components used in the product (including copyrights and licensing agreement) are available at <http://siemens.com/bt/download>.

Firmware version	OSS document ID	Device
0.1.16	A6V13038922	RCR110.2ZB

## Disposal

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The device is considered an electronic device for disposal in accordance with European Directive and may not be disposed of as domestic waste.

- Use only designated channels for disposing the devices.
- Comply with all local and currently applicable laws and regulations.

## Warranty

Technical data on specific applications are valid only together with Siemens products listed under Equipment combinations [► 3]. Siemens rejects any and all warranties in the event that third-party products are used.

## Technical data

Power supply	
Operating voltage	AC 230 V (+10/-15 %)
Frequency	48...63 Hz
Power consumption including connected field devices	5 VA

Radio parameters	
Frequency band	2.4...2.4835 GHz
Maximum radio-frequency power	15 dBm
Zigbee standard	Zigbee 3.0
MAC protocol	IEEE802.15.4
Zigbee channels	11...26
Pairing method with GTW100ZB	Global Link Key

Switching capacity of relays	
Voltage	AC 24...230 V
Current	Q11- Q12 Maximum 5 A Q11- Q14 Maximum 8 (2) A Q21- Q22 Maximum 5 A Q21- Q24 Maximum 8 (2) A

### WARNING



#### No internal fuse.

External preliminary protection with maximum C 16 A circuit breaker in the supply lines is required under all circumstances.

External protection for incoming cable	
Circuit breaker	Maximum 16 A
Circuit breaker tripping characteristic	Type B, C or D as per EN 60898 and EN 60947
Contact life at AC 230 V At 8 A res.	Guided value: 1 x 10 <sup>5</sup> cycles
Insulation strength	
Between relay contacts and coil	AC 5,000 V
Between relay contacts (same pole)	AC 1,000 V

Electrical connections	
Connection terminals	Screw terminals
For solid wires	2 x 1.5 mm <sup>2</sup>
For stranded wires	1 x 2.5 mm <sup>2</sup> (min. 0.5 mm <sup>2</sup> )

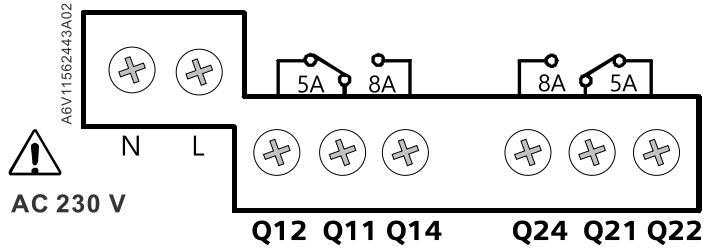
Ambient conditions and protection classification	
Safety class as per EN60730	Class II
Degree of protection of housing as per EN 60529	IP30
Classification as per EN 60730	
Function of automatic control devices Operation altitude Degree of pollution Overvoltage category	Type 1 < 3000 m 2 III
Climatic ambient conditions	
Transport (packaged for transport) as per EN 60721-3-2 Storage as per EN 60721-3-1 Operation as per EN 60721-3-3	Transport/Storage: Temperature -25...60 °C (-13...140 °F) Air humidity 5...95 % r.h. (non-condensing) Operation: Temperature 0...50 °C (32...122 °F) Air humidity 5...95 % r.h. (non-condensing)
Mechanical ambient conditions	
Transport as per EN 60721-3-2 Operation as per EN 60721-3-3	Class 2M2 Class 3M2

Standards, directives and approvals	
EU conformity (CE)	A5W00218224A <sup>1)</sup>
UKCA	A5W00218226A <sup>1)</sup>
Environmental compatibility	The product environmental declaration A5W90009801 <sup>1)</sup> contains data on environmentally compatible product design and assessments (RoHS compliance, materials composition, packaging, environmental benefit, disposal).

\* The documents can be downloaded from <http://siemens.com/bt/download>.

General	
Receiver with box, user document and accessory	262 g
Receiver	174 g
Housing color	RAL9003

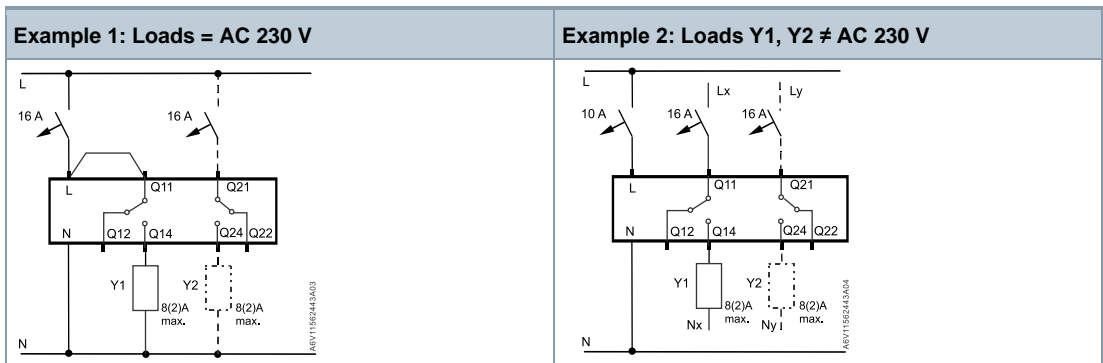
Connection terminals



Terminal	Designation
L, N	Power supply, AC 230 V
Q11, Q21	Control input (com)
Q12, Q22	Control output, NC contact
Q14, Q24	Control output, NO contact

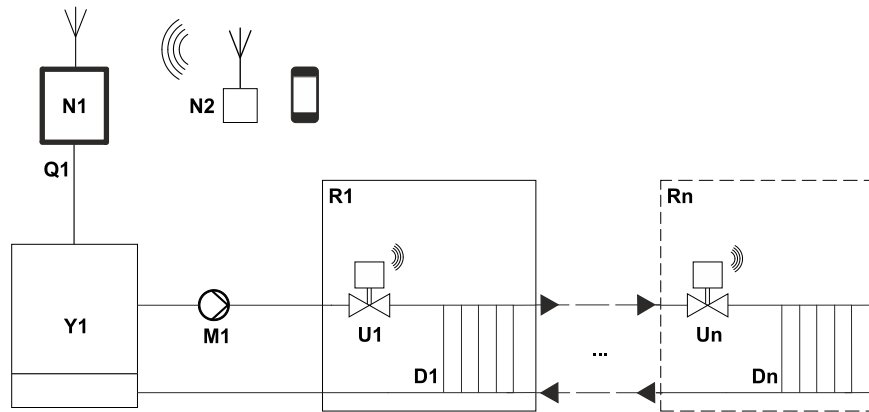
Wiring diagrams

Example 1 illustrates a convenient wiring method (AC 230 V with bridge). If the load is not AC 230 V, see example 2.

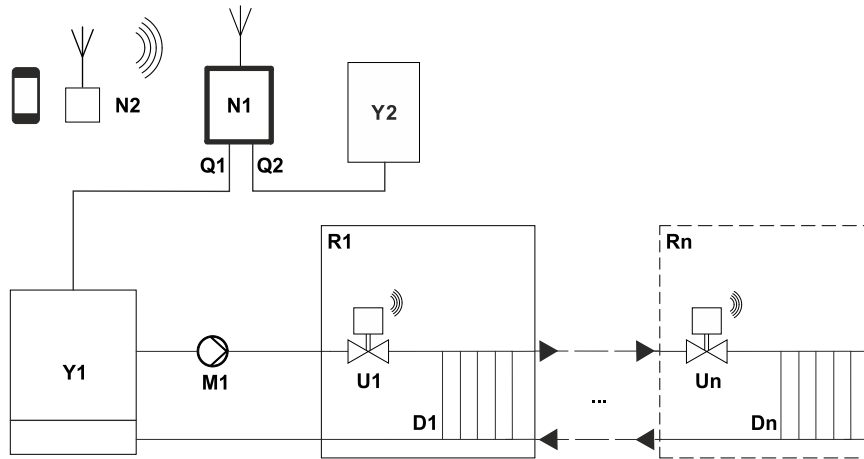


Y1	Boiler, circulation pump, main zone valve or non-reversible heat pump
Y2	DHW

Gas boiler, multi-zone

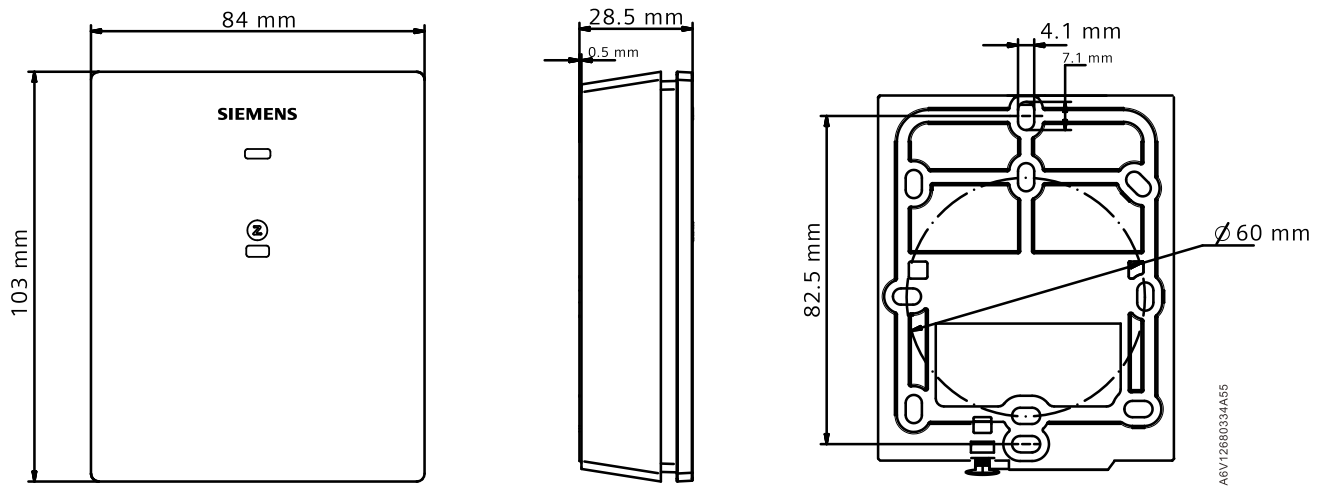


Gas boiler and DHW, multi-zone



N1	Connected Home Receiver RCR110.2ZB
N2	Connected Home Hub GTW100ZB
Q1, Q2	Relay outputs
Y1	Heat generator (e.g., boiler)
Y2	Domestic hot water boiler
M1	Circulating pump
R1, Rn	Individual room/zone
U1, Un	Radiator Valve act. Zigbee
D1, Dn	Radiator

## Dimensions



## Regulatory compliance information

### Radio equipment directive

The equipment uses harmonized frequency in Europe and complies with Radio Equipment Directive 2014/53/EU (formerly 1999/5/EC).



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