

Product Description**RBW301-C, RBW302-C, RBW304-C, RBW305-C****RBW301-C, RBW302-C, RBW304-C, RBW305-C
Room Control Module****Application**

Room control module with display, room temperature sensor and manual setting of the room temperature setpoint for the following room controllers and automation systems:

- RCN150-L, RCN151-L, RCN152-L, RCN155-L
- RCC200-L or RCN200-L
- RCN420-B
- DDC4000, DDC420

Different variants with a graded range of functions are available: Set room temperature, manual and automatic fan control, presence button (present/absent).



RBW301-C



RBW302-C



RBW304-C



RBW305-C

Content**Page**

Important Information Regarding Product Safety	2
Item	3
Technical Data	3
Accessories (not included in delivery)	3
Compatibility	4
Dimensions	4
Connection	5
Mounting	6
Function/Operation	8
Setting the room temperature	9
Energy saving function (RBW304-x, RBW305-x)	9
Schedule	9
CAN Address Setting	10
Installation	11
Notes for service technicians	11

Änderungen vorbehalten - Contents subject to change - Sous réserve de modifications - Reservado el derecho a modificación - Wijzigingen voorbehouden - Con riserva di modifiche - Innehåll som skall ändras - Změny vyhrazeny - Zmiany zastrzeżone - Возможны изменения - A változtatások jogát fenntartjuk - 保留未经通知而改动的权力

Important Information Regarding Product Safety

Safety Instructions

This data sheet contains information on installing and commissioning the product "RBW301-C, RBW302-C, RBW304-C, RBW305-C". Each person who carries out work on this product must have read and understood this data sheet. If you have any questions that are not resolved by this data sheet, you can obtain further information from the supplier or manufacturer.

If the product is not used in accordance with this data sheet, the protection provided will be impaired.

Applicable regulations must be observed when installing and using the device. Within the EU, these include regulations regarding occupational safety and accident prevention as well as those from the VDE (Association for Electrical, Electronic & Information Technologies). If the device is used in other countries, it is the responsibility of the system installer or operator to comply with local regulations.

Mounting, installation and commissioning work on the devices may only be carried out by qualified technicians. Qualified technicians are persons who are familiar with the described product and who can assess given tasks and recognize possible dangers due to technical training, knowledge and experience as well as knowledge of the appropriate regulations.

Legend



WARNING

Indicates a hazard of medium risk which can result in death or severe bodily injury if it is not avoided.



CAUTION

Indicates a hazard of low risk which can result in minor or medium bodily injury if it is not avoided.



CAUTION

Indicates a hazard of medium risk which can result in material damage or malfunctions if it is not avoided.



NOTE

Indicates additional information that can simplify the work with the product for you.

Notes on Disposal

For disposal, the product is considered waste from electrical and electronic equipment (electronic waste) and must not be disposed of as household waste. Special treatment for specific components may be legally binding or ecologically sensible. The local and currently applicable legislation must be observed.

Product Description**RBW301-C, RBW302-C, RBW304-C, RBW305-C****Item**

RBW301-C	Room control module with room temperature sensor and display, settings made using knob and confirmation key (room temperature setpoint, timer functions)
RBW302-C	All features of RBW301-C plus presence button
RBW304-C	All features of RBW301-C plus buttons for fan control
RBW305-C	All features of RBW301-C plus buttons for fan control, presence button

Technical Data

Nominal voltage	DC 12 V, $\pm 10\%$, 0.96 W
Power consumption	0.6 W backlighting (OFF) 0.96 W backlighting (ON)
Measured value	Room temperature of spaces in homes or commercial premises
Measuring system	Integrated digital sensor
Display and controls	■ Backlit display: Feedback, presence, fan status, heating/cooling, window contact, weekly schedule, time, date, project-specific messages, service level ■ Knob with confirmation key for setting the temperature, time and weekly schedule; display of service data
	Keys:
	 Fan control level increasing: Fan on, increased speed
	 Fan control level decreasing: Decreased speed, fan off
	Auto Fan in automatic mode (fan speed specified by controller)
	 Presence button: Switch to present or absent
Interfaces	4-wire terminal or RJ9 jack
Measuring range	0 °C to 50 °C
Relative measuring accuracy	0.1 K
Housing	Plastic housing, RAL 9010 (pure white) Other colors on request
Protection class	III
Degree of protection	IP30
Ambient temperature	0 °C to 50 °C
Ambient humidity	During operation: 20% to 80% r.h.; non-condensing Out of operation: 5% to 90% r.h.; non-condensing
Installation	Screw mounting on standard flush-mounted box
Weight	0.12 kg
Dimensions	WxHxD mm 90 x 90 x 32,5; Depth in wall 9.5

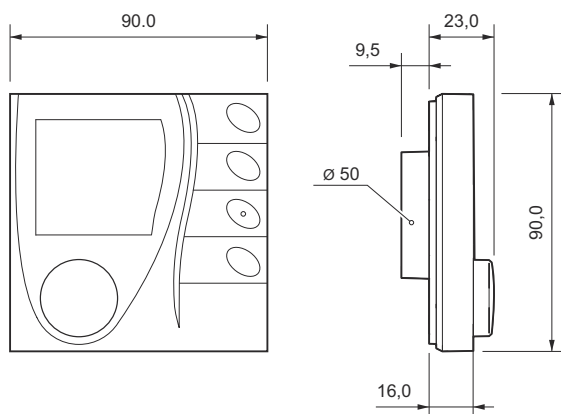
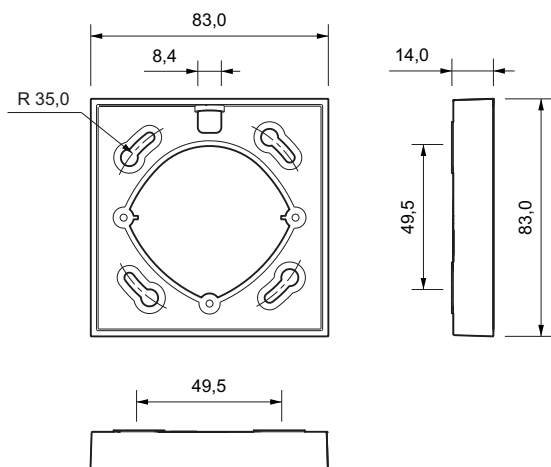
Accessories (not included in delivery)

Z146	Adapter frame for direct wall mounting
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Compatibility

Can be connected to:

- RCN150-L, RCN151-L, RCN152-L, RCN155-L, RCC200-L, RCN200-L or RCN420-B room controllers
up to four room control modules depending on the application
- DDC420 automation station
up to 3 room control modules
- DDC4200-L, DDC4200, DDC4002, DDC4400, DDC4200e, DDC4002e or DDC4400e automation stations
depending on the fieldbus, up to nine room control modules to addresses 1 to 9

Dimensions**- Z146**

RBW301-C, RBW302-C, RBW304-C, RBW305-C

Figure 10-10 shows a circuit with a 12V battery connected to two resistors in series: $R_1 = 10\ \Omega$ and $R_2 = 20\ \Omega$. The current I flows from the positive terminal of the battery through the resistors.

DDC420

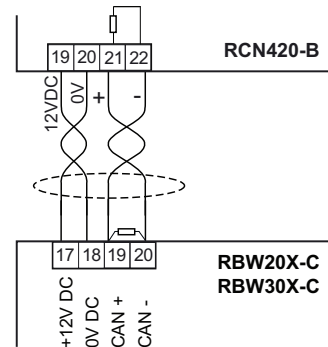
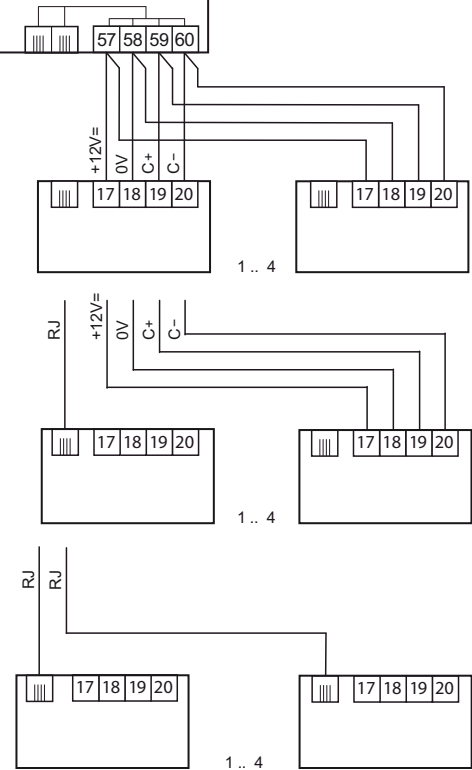
19 20 21 22

12VDC 0V + -

RBW20X-C
RBW30X-C

17 18 19 20

+12V DC 0V DC CAN + CAN -

[illegible]

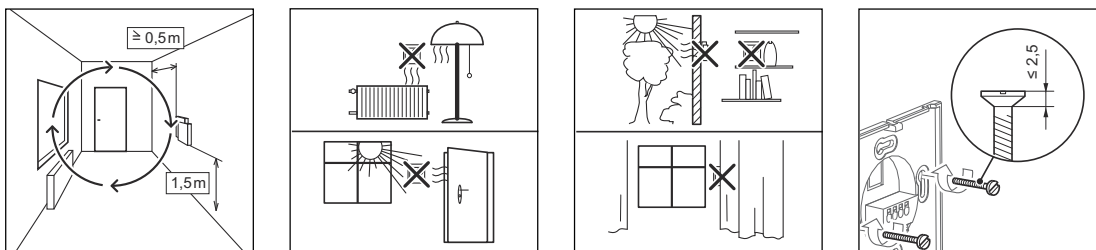
Mounting



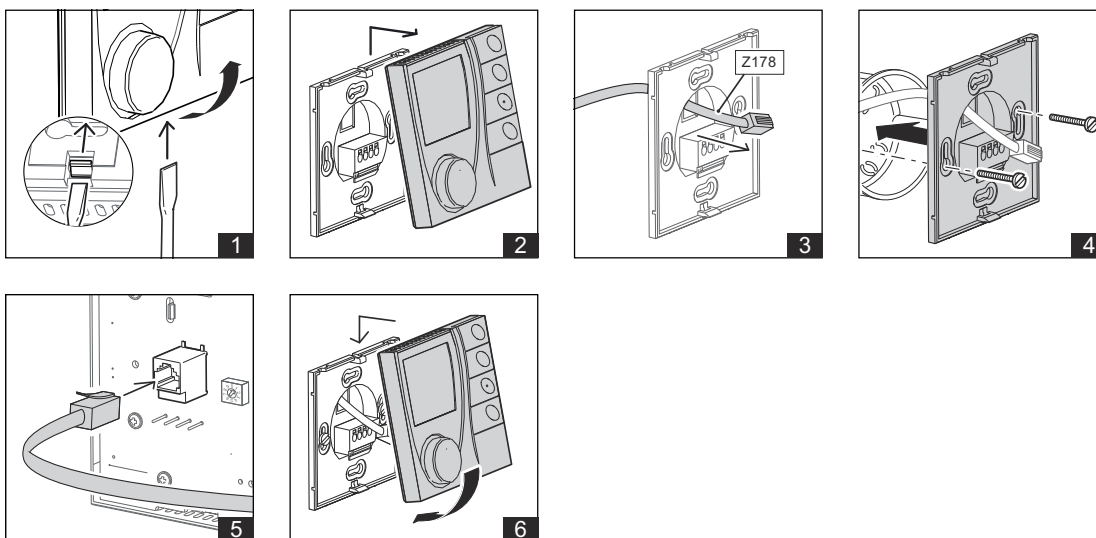
CAUTION

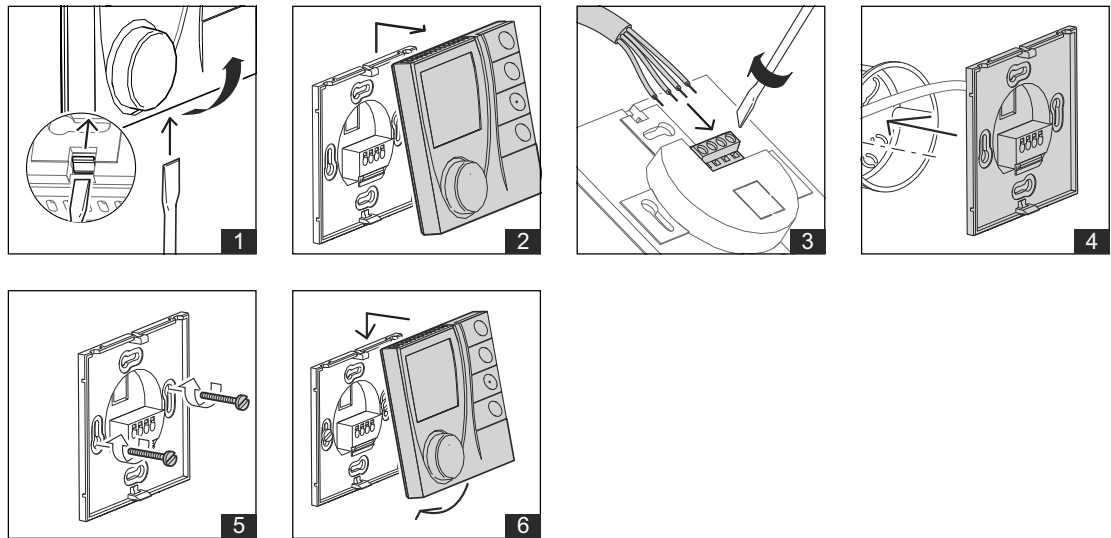
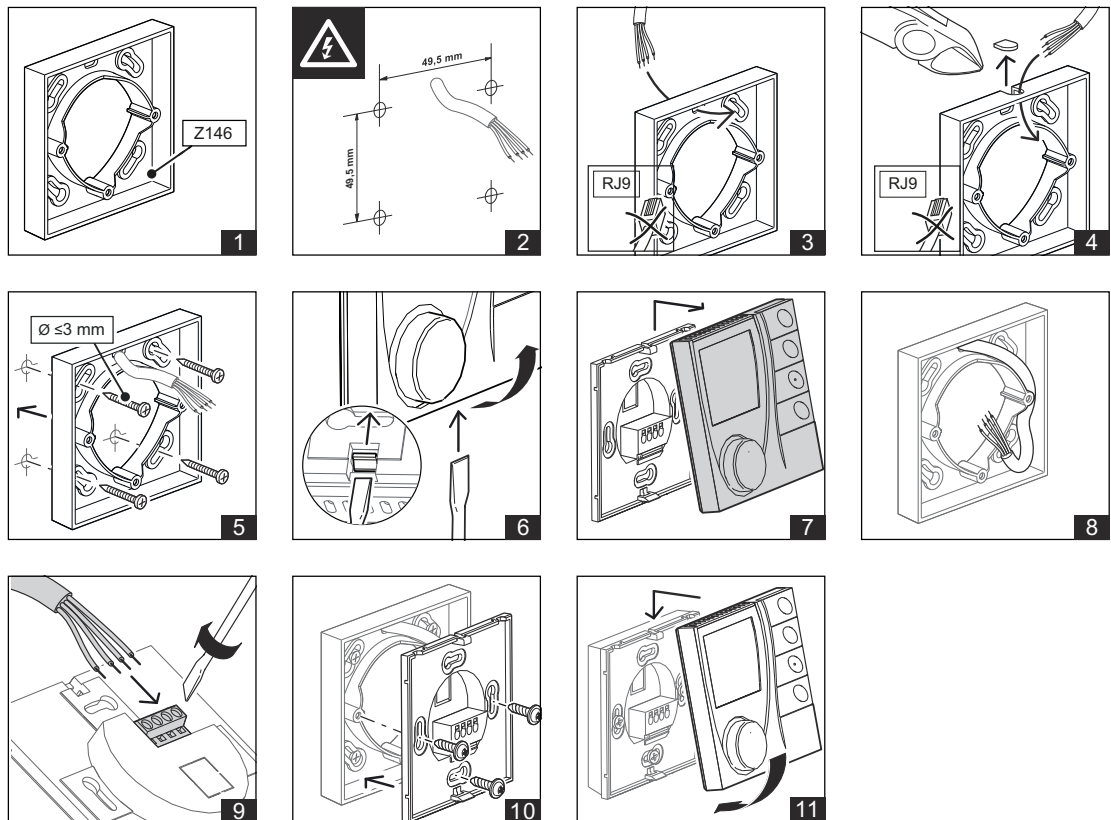
Installation and removal may only be carried out by qualified technicians when the power is switched off.

Choose an installation location that is subject to the air flow of the room to ensure that the room controller can quickly and accurately measure the room temperature.

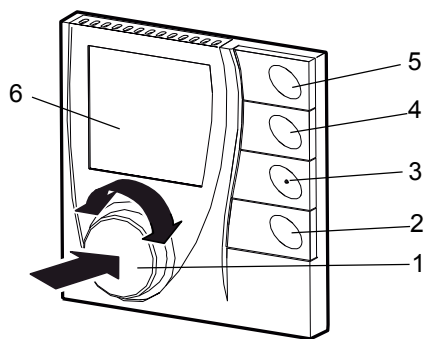


Installation on a standard flush-mounted box (RJ9 connector)



Product Description**RBW301-C, RBW302-C, RBW304-C, RBW305-C****Mounting on standard flush-mounted box (4-wire on terminal)****Direct wall mounting with Z146 adapter frame (4-wire on terminal)**

Function/Operation



1	[Knob] + [confirmation key]	Rotate: Set the value (e.g. temperature). Left: Reduce. Right: Increase. Press: Confirm display setting
2		Presence button (power save button): Switch between "Present" and "Absent" (RBW302-x, RBW305-x)
3	Auto	Fan in automatic mode: Fan speed specified by the controller (RBW304-x, RBW305-x)
4		Reduce speed, fan off (RBW304-x, RBW305-x)
5		Fan on, increase speed (RBW304-x, RBW305-x)
6		Backlit display

Display symbols

	"Present": Settings can be made. Additionally: Display of the switch-on time for the utilization schedule (timer 1 and 2).		
	"Absent": No settings can be made. Additionally: Display of the switch-off time for the utilization schedule (timer 1 and 2).		
	Fan in automatic operating mode. The fan levels vary and the fan may also be switched off completely at times.		
	Fan is switched off		Fan can be switched to three different levels. Level 1: Low, Level 2: Medium, Level 3: High
	Symbol: Heating Flashing symbol: Fast heating		Symbol: Cooling Flashing symbol: Fast cooling
°C	Temperature display		Time display
	When window contacts are connected and as soon as a window is opened: No cooling or heating occurs. The temperature cannot be changed.		
	Utilization times setting on the corresponding day. Example: Two utilization times are set for the day, from 5 a.m. to 1 p.m. and from 5 p.m. to 8 p.m.		

Product Description

RBW301-C, RBW302-C, RBW304-C, RBW305-C

Setting the room temperature

Requirements: Indicator on the display: 

- ▶ Rotate or press the knob.
The temperature value is displayed and flashes.
- ▶ Rotate right: Increase the temperature. Rotate left: Reduce the temperature.
The temperature can be set over a range of up to +/-9.9 degrees.
- ▶ Press the knob: The preset temperature is saved and displayed.
The temperature is regulated accordingly.

Energy saving function (RBW304-x, RBW305-x)

- ▶ Switch the presence button to "Absent" when you leave the room for a longer period of time.
Indicator on the display: 
The energy saving function is activated and the temperature is set to a preconfigured value (can be displayed, but not adjusted).
- ▶ Switch the presence button to "Present" when you return to the room.
Indicator on the display: 
The energy saving function is switched off. The temperature is regulated accordingly.

Schedule

(Supported by RCC200-L, RCN200-L and DDC420)

Setting the timer

The following schedules (two timers in each case) are available: MO FR (working days), SA SU (weekend), MO SU (week) as well as MO TU WE TH FR SA SU for the individual days.

- ▶ Press and hold the knob for three seconds.
The schedules are displayed.
- ▶ Rotate the knob: Select the schedule. Press the knob: Confirm selection.
First timer: The start time is displayed and flashes. Indicator on the display: , time, .
- ▶ Rotate the knob: Set the start time. Press the knob: Confirm the setting.
First timer: The end time is displayed and flashes. Indicator on the display: , time, .
- ▶ Rotate the knob: Set the end time. Press the knob: Confirm the setting.
The display switches to the start time of the second timer.
Second timer: If required, set in the same way as for the first timer and confirm. Indicator on the display: , time, .

The timer settings are shown on the display on the corresponding day of the week.

Deleting the second timer

- ▶ Select the timer end time as described above. Indicator on the display: , time, .
- ▶ Rotate the knob to the left (end time = start time). Press the knob: Confirm the setting.
Timer is deleted and is no longer displayed.

Deleting the first and second timers

- ▶ Select the end time of the first timer as described above. Indicator on the display: , time, .
- ▶ Rotate the knob to the left (end time = start time). Press the knob: Confirm the setting.
The first and second timer have been deleted and are no longer displayed.

Temporarily extending the room utilization time (RBW302-x, RBW305-x)

Requirement: The timer is set but is not active (outside of room utilization time).

- ▶ Switch the presence button to "Present".
The utilization time extension is displayed as a timer.
- ▶ Rotate the knob: The utilization time can be extended by up to four hours (from the set time).
The new utilization time extension is displayed as a timer.

Setting the time

- ▶ Press and hold the knob for three seconds.
- ▶ Rotate the knob: Select the TIME function. Press the knob: Confirm selection.
- ▶ Set the time:
 - Set the hour. Confirm the setting.
 - Set the minute. Confirm the setting.
- ▶ Set the date:
 - Set the year. Confirm the setting.
 - Set the month. Confirm the setting.
 - Set the day. Confirm the setting.

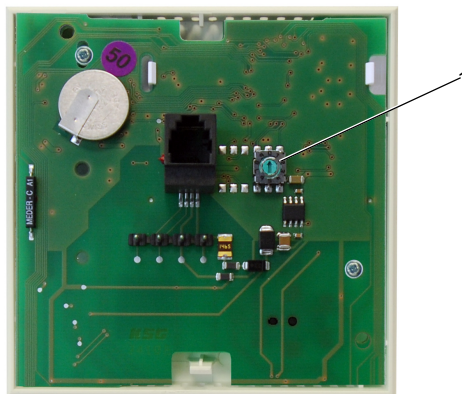
The settings for the time and date are applied. The display changes back to the standby display.

CAN Address Setting

The address switch (1) is located on the PCB of the room control module (rear of device).

Address setting:

- For RCN150-L, RCN151-L, RCN152-L, RCN155-L, RCC200-L or RCN200-L with basic application: Address 1 for main room, Address 2 for secondary room
- For RCN150-L, RCN151-L, RCN152-L, RCN155-L, RCC200-L, RCN200-L or RCN420-B configured with PS4000: Address 1 to 4 for room 1 to 4
- DDC4000: Address 1 to 9
- DDC420: Address 1 to 9



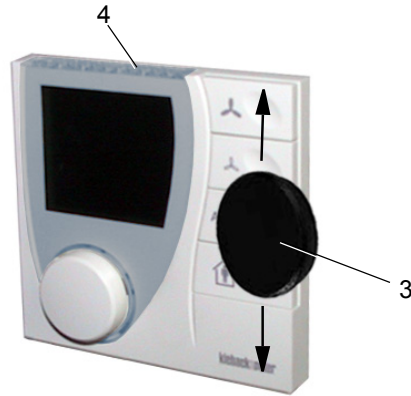
1 Adressschalter

Product Description**RBW301-C, RBW302-C, RBW304-C, RBW305-C****Installation**

- Online installation with the RCxxxx-L technolon® room controller:

The RCxxxx-L technolon® room controller can also be identified directly on the room control module using a magnet (3). To do so, guide a magnet (3) along the right side of the RBW30x-C room control module.

This triggers the service PIN in the RCxxxx-L room controller internally. This is indicated by a service LED (4) on the top part of the housing on the room control modules that lights up green.



RBW305-C

Notes for service technicians**Additional indicators on the display**

%	Setting the heating and cooling valve (0% to 100%)
ΔB	Triangle with a number between 0 and 9: Error code that needs to be rectified by the service technician. The displayed error messages are project-specific.
F 1.00	Display of the version number (example)

Querying the service settings

- ▶ Press and hold the knob for three seconds.
- ▶ Rotate the knob: Select the SR function. Press the knob: Confirm selection.
- ▶ PIN entry:
 - In order to get to the service level, enter the corresponding code of 2460. Confirm the code numbers individually.
- ▶ Query of the valve outputs:
 - You can query the service values with this function (the associated symbols are shown on the display).

RBW301-C, RBW302-C, RBW304-C, RBW305-C

Product Description
