Room sensor WL

Art.-No. BTERWL/BW

Schlüter® Systems

Operating Instructions

CE

1. About these operating instructions

1.1 About these operating instructions

These operating instructions describe the room sensor WL (also referred to as "product" in these operating instructions). These operating instructions are part of the product.

• You may only use the product if you have fully read and understood these operating instructions.

• Verify that these operating instructions are always accessible for any type of work performed on or with the product.

• Pass these operating instructions as well as all other product-related documents on to all owners of the product.

• If you feel that these operating instructions contain errors, inconsistencies, ambiguities or other issues, contact the manufacturer prior to using the product.

These operating instructions are protected by copyright and may only be used as provided for by the corresponding copyright legislation. We reserve the right to modifications. The manufacturer shall not be liable in any form whatsoever for direct or consequential damage resulting from failure to observe these operating instructions or from failure to comply with directives, regulations and standards and any other statutory requirements applicable at the installation site of the product.

2. Information on safety

2.1 Safety messages and hazard categories

These operating instructions contain safety messages to alert you to potential hazards and risks. In addition to the instructions provided in these operating instructions, you must comply with all directives, standards and safety regulations applicable at the installation site of the product. Verify that you are familiar with all directives, standards and safety regulations and ensure compliance with them prior to using the product. Safety messages in these operating instructions are highlighted with warning symbols and warning words. Depending on the severity of a hazard, the safety messages are classified according to different hazard categories.

NOTICE

NOTICE indicates a hazardous situation which, if not avoided, can result in equipment damage.

2.2 Intended use

This product may only be used to control the temperature in single rooms with an underfloor heating system (heating/cooling).
The product sends wireless EnOcean® signals to communicate with the connection modules WL.
Any use other than the application explicitly permitted in these operating instructions is not permitted and causes hazards.
Verify that the product is suitable for the application planned by you prior to using the product. In doing so, take into account at least the following:

• All directives, standards and safety regulations applicable at the installation site of the product

• All conditions and data specified for the product

• The conditions of the planned application

In addition, perform a risk assessment in view of the planned application, according to an approved risk assessment method, and implement the appropriate safety measures, based on the results of the risk assessment. Take into account the consequences of installing or integrating the product into a system or a plant.
When using the product, perform all work and all other activities in conjunction with the product in compliance with the conditions specified in the operating instructions and on the nameplate, as well as with all directives, standards and safety regulations applicable at the installation site of the product.

2.3 Predictable incorrect application

The product must never be used in the following cases and for the following purposes:

• In conjunction with devices which are used for health-saving or life-saving purposes or whose operation may incur hazards to humans, animals or property.

2.4 Qualification of personnel

Only persons who are familiar with and understand the contents of these operating instructions and all other pertinent product documentation are authorized to work on and with this product.

2.5 Personal protective equipment

Always wear the required personal protective equipment. When performing work on and with the product, take into account that hazards may be present at the installation site which do not directly result from the product itself.

2.6 Modifications to the product

Only perform work on and with the product which is explicitly described in these operating instructions. Do not make any modifications to the product which are not described in these operating instructions.

3. Transport and storage

The product may be damaged as a result of improper transport or storage.

NOTICE

DAMAGE TO THE PRODUCT

• Verify compliance with the specified ambient conditions during transport or storage of the product.
• Use the original packaging when transporting the product.
• Store the product in a clean and dry environment.
• Verify that the product is protected against shocks and impact during transport and storage.
Failure to follow these instructions can result in equipment damage.

4. Product description

4.1 Overview
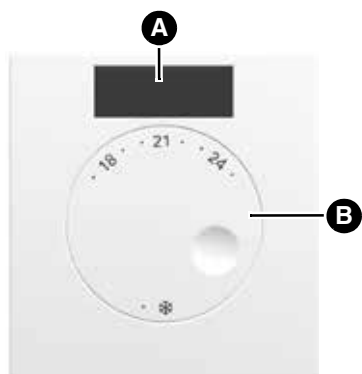
A. Solar cell

B. Rotary knob for adjusting the reference temperature

4.2 Dimensions
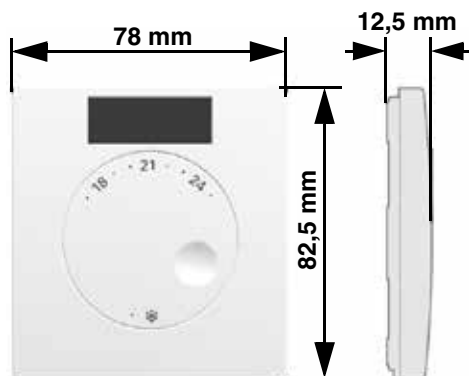
4.3 Function

The single room temperature controller is used to control the temperature in rooms with underfloor heating system (heat/cool).

The product measures the actual temperature in the corresponding room. The reference temperature is adjusted via the rotary knob of the corresponding product.

The product transmits the actual temperature and the reference temperature to the connection modules WL via wireless EnOcean® signals.

The product does not indicate heating and cooling via LEDs.The product is equipped with a solar cell for power supply. A battery can be used for use in darker rooms. Each product has a unique ID. If multiple products are used, the recipient can distinguish the individual products.

4.4 Approvals, conformities, certifications

The product complies with:
- EMC Directive (2014/30/EU)
- Low Voltage Directive (2014/35/EU)
- Radio and Telecommunications Terminal Equipment Directive (1999/5/EC)
- Ecodesign Directive (2009/125/EC)
- RoHS Directive (2011/65/EU)

4.5 Technical specifications

Parameter	Value
General specifications	
Dimensions (W x H x D)	78 x 82.5 x 12.5 mm
Weight	43 g
Housing material	PC
Colour	White, similar to RAL 9003
Temperature adjustment range/ temperature measuring range	+8/+30 °C
Temperature measurement	0/+40 °C
Accuracy	± 1 K
Operating temperature range	
Ambient	-20/+60 °C
Storage	-20/+60 °C
Max. humidity	Non-condensing
Supply voltage	
Via solar cell	Energy harvesting
Via lithium battery	3 V type 1632
Electrical safety	
Protection class	III (EN 60730-1; SELV)
Degree of protection	IP 30 (EN 60529)
Electromagnetic compatibility (EMC)	
Applied standards	EN 301489-3:V1.6.1 EN 301489-1:V1.9.2 EN 300220-1:V2.4.1 EN 300220-2:V2.4.1
Low Voltage Directive	
Applied standards	EN 60950-1

Radio and Telecommunications Terminal Equipment Directive (R&TTE)

| Applied standards	EN 62479:2010
EnOcean® wireless	
Frequency	868.3 MHZ
Transmission power	Max. 10 mW
Range	Approx. 25 m
EnOcean® Equipment Profile (EEP)	WL A5-10-03

5. Mounting

5.1 Preparing mounting
⇨ Prior to mounting, verify that the solar-operated energy storage module has been charged.
　　- Regular daylight is sufficient for charging the energy storage module.
　　- Exposure to direct sunlight reduces the charging time.
⇨ If you want to install several products, create an installation plan with the individual installation sites. Then label the individual products according to the installation plan with a number or the designation of the installation site in order to reduce the possibility of confusion.

5.2 Mounting the product
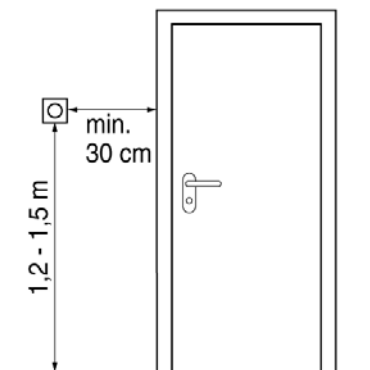
Cold walls and draughts affect temperature measurement.

Mount the product to inner walls and at an adequate distance from doors and windows.
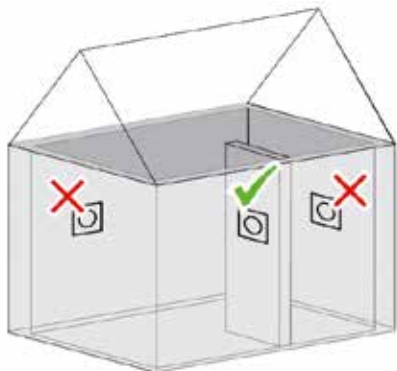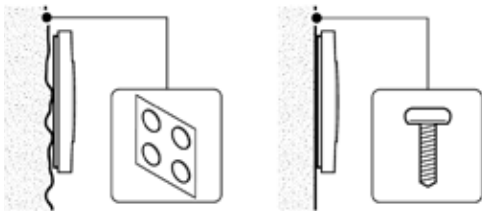
Stick the product to uneven walls using the adhesive dots supplied. Screw or glue the product to even walls.
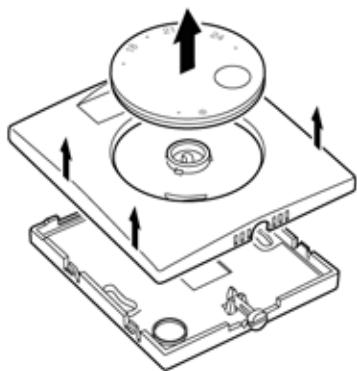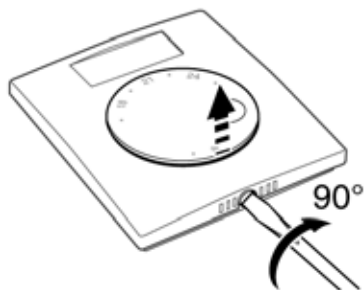
5.2.1 Sticking the product to a wall
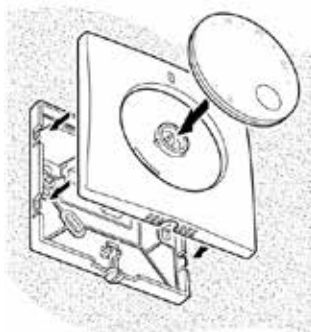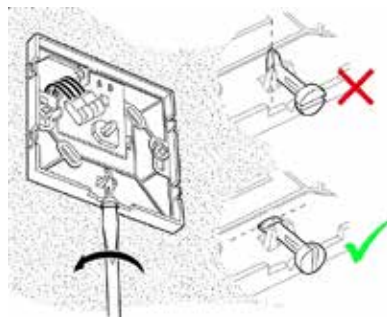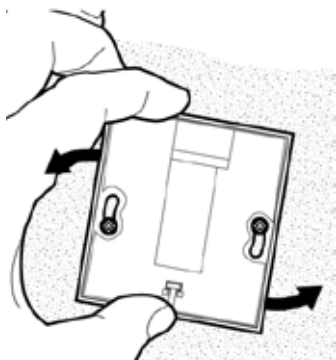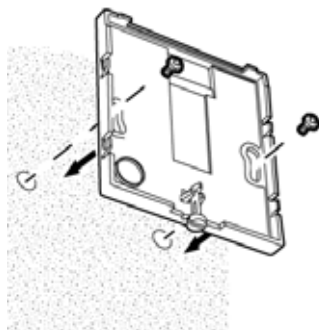1.   Stick the product to the wall using the adhesive dots.

5.2.2 Screwing the product to a wall

Removing the rotary knob and the upper part of the housing
1.   Turn the cam screw at the bottom of the thermostat by approximately 90° using a screwdriver.

2.   The rotary knob is lifted and can be removed.

3.   Remove the upper part of the housing.

Mounting by screwing
4. Screw the bottom part of the housing to the even wall.

Refitting the rotary knob and the upper part of the housing
5. Turn the cam screw at the bottom of the thermostat back to the initial position using a screwdriver.

6. Fit the upper part of the housing and the rotary knob to the bottom part of the housing. Verify correct position with reference to the axis of rotation when inserting the rotary knob.

5.3   Inserting a battery (optional)

With daylight less than 200 lx, a battery must be used.

⇨   Verify that the rotary knob and the upper part of the housing have been removed.

1.   Fit the 3 V lithium battery type 1632. Verify correct polarity.
2.   Fit the upper part of the housing and the rotary knob.

6. Commissioning

6.1   Programming

1.   Press the LRN key of the product with a bent open paper clip for at least 0.5 seconds to program the product.

See the operating instructions for the connection module WL for information on connecting the product to the connection module WL.

6.2   Function test

⇨   Verify that the room temperature is between +15 °C and +25 °C.

1.   Set the product to be tested for frost protection.
2.   Set the product to be tested to +30°C.
     - After no more than one minute, the yellow LED lights up at the connection module WL to which the product is connected.
3.   Verify that the product to be tested is connected to the correct control circuit.
4.   Repeat this procedure for all other products.

7. Operation

### 7.1   Adjusting the room temperature

Fig. 1: Adjusted room temperature (example 21 °C)

1. Adjust the desired temperature at the thermostat.
    - Without temperature reduction:
      The room temperature is set to the adjusted value
    - With temperature reduction:
   The room temperature is set to a value 4 K below the adjusted value

7.2   Limiting temperature adjustments

The adjustment range of the rotary knob is factory-set to a minimum of +8 °C and a maximum of +30 °C by means of restrictors. The restrictors can be adjusted to set the minimum and the maximum adjustable temperature.
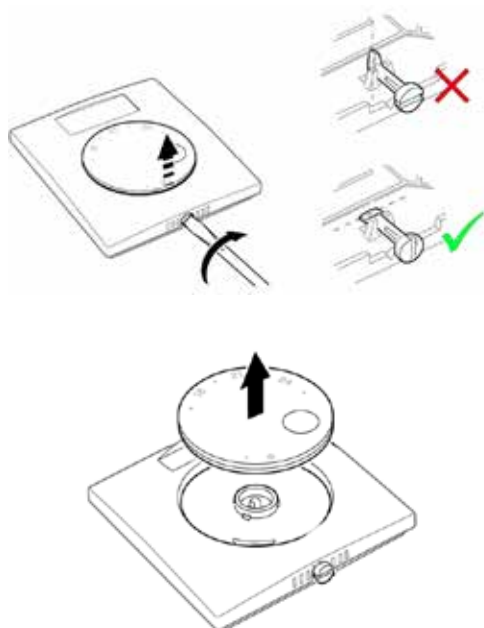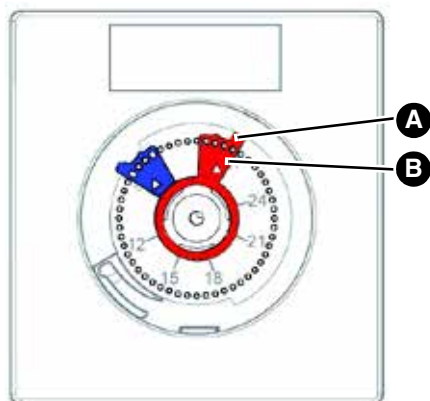

1. Turn the cam screw at the thermostat approximately 90° using a screwdriver.

2. The rotary knob is lifted and can be removed.

7.2.1 Setting the minimum temperature
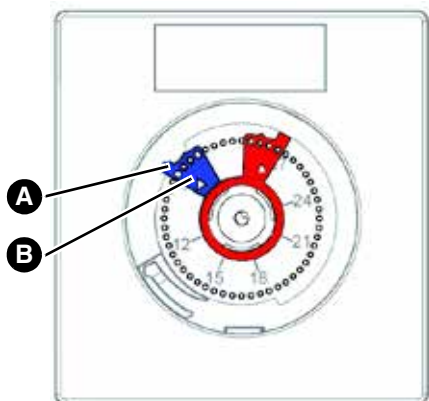
1. Lift the blue restrictor at the flag (A).
2. Turn the blue restrictor with the restrictor adjustment edge (B) to the desired value for the minimum temperature and refit it.

7.2.2 Setting the maximum temperature

1. Lift the red restrictor at the flag (A).
2. Turn the red restrictor with the restrictor adjustment edge (B) to the desired value for the maximum temperature and refit it.
3. Turn the cam screw at the bottom of the thermostat back to the initial position so that you can refit the rotary knob.
4. Refit the rotary knob.

7.2.3 Frost protection function

- Without temperature reduction:
  The room temperature is adjusted to +8 °C.
- With temperature reduction:
  The room temperature is adjusted to +4 °C.

Fig. 2: Frost protection (+8 °C)

8. Maintenance

The product is maintenance-free.

9. Troubleshooting

Any malfunctions that cannot be removed by means of the measures described in this chapter may only be repaired by a trained expert.

10. Decommissioning, disposal

Dispose of the product in compliance with all applicable directives, standards and safety regulations. Electronic components must not be disposed of together with the normal household waste.

1. Dismount the product (see chapter "Mounting", reverse sequence of steps).
2. Dispose of the product and the battery (optional) separately.

11. Warranty

See our terms and conditions or your purchase contract for information on warranty.

12. Spare parts and accessories

Product

Product designation	Part no.	Figure
Room sensor WL	BTERWL/BW	

PROFILE OF INNOVATION