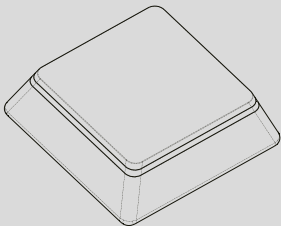




Engineering progress
Enhancing lives



RE.GUARD Water Sensor

EN Operation manual



REHAU

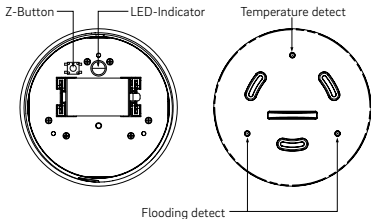
RE.GUARD Water Sensor is a wireless sensor powered by ER14250 battery. It is used for detecting water overflowing. It can communicate with an associated Z-Wave device, such as RE.GUARD Water Control, Siren, Smart Switch, etc.

The features list:

1. Z-Wave Plus certified for wide compatibility (500 series product).
2. Supports security 0 and security 2 protected mode with AES-128 encryption.
3. Contains an extension water detecting probe.
4. Temperature measurement.
5. The battery life is up to 1 year.
6. Support low battery alarm function.
7. Support firmware OTA.

01 General information about water sensor

01.01 Product layout

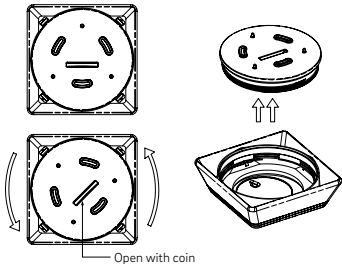


01.02 Spezifikation

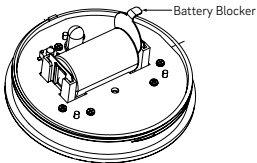
Power supply:	ER14250 3.6 V Battery
Storage environment:	-20 °C – +60 °C 0 % – 90 % r.H.
Operational temperature:	±0 °C – +40 °C
Radio protocol:	Z-Wave plus
Radio frequency:	868.42MHz (EU version) 869 MHz (RU version)
Range:	More than 100 m outdoors up to 30 m indoors (depending on building materials)
Dimensions:	Main body: 65 mm x 65 mm x 22 mm Cable lenght extension probe: 1 m
Working current:	About 40 mA
Standby current:	About 24 µA
Transmitted power:	-7.08 dBm ERP

02 Activation

1. Turn the cover counter-clockwise and open it.



2. Remove the battery blocker or insert a battery ER14250 3.6V

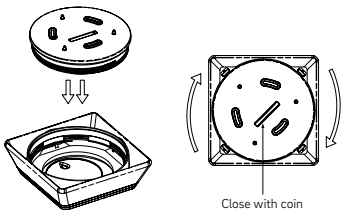


Note:

When powered, the device will indicate Z-Wave status with LED:

1. Blink slowly: the device is not added to any Z-Wave network.
2. Solid: the device is already added to the Z-Wave network.

3. Add the device (see "04 Adding/removing the device").
4. Close the cover and turn it clockwise.
5. Place the sensor on a surface prone to flooding, or use the extension probe (see "03 Installation").



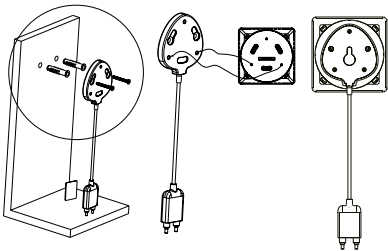
03 Installation:

Water Sensor should not be mounted directly on or near metal framing or other large metallic objects since metal objects may weaken the radio signal strength.

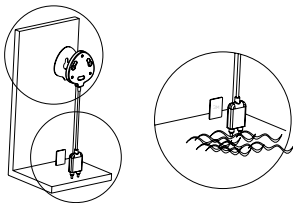
After "activation" process, the sensor can work without any installation. Furthermore, you can use the extension probe to fix sensor body.

To install with extension probe, follow the steps:

1. Screw the baseplate of extension probe into the wall and then magnet the sensor body.



2. Glue the extension probe to a location that may be affected by water leakage.



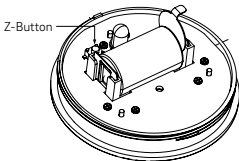
Note:

Wipe clean the surface where the Water Sensor will be mounted. Any dust and particles can reduce the adhesion of double-sided mounting tape

04 Adding/removing the device

Adding:

1. Open the cover.
2. Place the device within the direct range of your Z-Wave controller, e.g. RE.HUB Gateway.
3. Set the main controller's adding mode (see the controller's manual), e.g. via RE.GUARD App.
4. Press the Z-button once or press it briefly three times, the LED indicator should blink fast in blue.



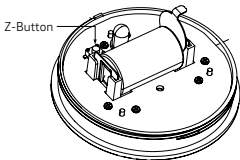
5. Wait for the adding process to end.
6. Successful adding will be confirmed by the Z-Wave controller's message.

**Tip:**

If you want your Water Sensor to be a security device that uses secure/encrypted message to communicate in a Z-Wave network, then a security enabled Z-Wave controller is needed.

Removing:

1. Open the cover.
2. Place the device within the direct range of your Z-Wave controller, e.g. RE.HUB Gateway.
3. Set the main controller remove mode (see the controller's manual), e.g. via RE.GUARD App.
4. Press the Z-button briefly three times, the LED indicator should blink fast in orange.



5. Wait for the end of the removing process.
6. Successful removing will be confirmed by the Z-Wave controller.

05 Resetting

Reset procedure clears the Water Sensor's memory, including Z-Wave network controller information and advanced configuration.

To reset a Water Sensor:

Press and hold the Z-button for more than 20 seconds until blinking ends.

**Note:**

Use this procedure only in the event that the network primary controller is missing or otherwise inoperable

06 Association

Association allows Water Sensor to control other Z-Wave device such as siren, smart switch, etc. The Water Sensor supports two association groupings.

Group 1 reports the flooding detection, temperature and the battery level. Group 2 is assigned to send BASIC SET command.

**Tip:**

1. The max number of associated nodes of all these 2 groups is 5.
2. Association allows for direct transmission of control command between devices and takes place without the participation of the main controller.

07 WAKE-UP

Wake-up-interval:

Available settings: 0-2678400

Default setting: 0, setting via RE.GUARD App: 86400

Defining a time period by which the Water Sensor sends a wake up notification command frame to communicate with the assigned device, update parameters, update software, detects battery level.

Wake up interval set to 0 disables the sending wake up notification command, in such configuration it is needed to manually wake up the device by pressing the Z-button.

**Note:**

3600 seconds is the step of wake up interval time, which means Water Sensor will send wake up notification command by a timeline that is multiple of 3600 seconds.

Setting examples:

0-3599 = 0 second, the device will not wake up by itself.

3600-7199 = 3600 seconds, the device will wake up every 3600 seconds.

08 Advanced configuration

Water Sensor offers a wide variety of advanced configuration settings. Below parameters can be accessed from main controllers configuration interface.

Parameter No. 14 Enable/Disable BASIC SET command

Water Sensor can send BASIC SET command to nodes associated with group 2.

0 – Disable.

1 – Enable.

Default setting: 0

Parameter size: 1 [byte]

Parameter No. 15 Value of the BASIC SET

Water sensor can reverse its value of BASIC SET when flooding is triggered.

0 – Send BASIC SET VALUE = 255 to nodes associated with group 2 when flooding alarm is triggered.

Send BASIC SET VALUE = 0 to nodes associated with group 2 when flooding alarm is canceled.

1 – Send BASIC SET VALUE = 0 to nodes associated with group 2 when flooding alarm is triggered.

Send BASIC SET VALUE = 255 to nodes associated with group 2 when flooding alarm is canceled.

Default setting: 0

Parameter size: 1 [byte]

Parameter No. 17 Set resend flooding alarm interval (minute)

Available settings: 1 – 240

Default setting: 5

Parameter size: 1 [byte]

Parameter No. 19 Temperature report time (10 minutes)

Parameter No.19 Temperature report time (10 minutes) The sensor measures the temperature every ten minutes, change of 1 degree Celsius will be reported. By default, it must report at least once a day.

Available settings: 3 – 240

Default setting: 144

Parameter size: 1 [byte]

Parameter No. 20 Set the high temperature alarm trigger value

Available settings (US): -670 – 2570 (-67 °F – 257 °F)

Available settings (Other): -550 – 1250 (-55 °C – 125 °C)Default

setting (US): 1040 (104 °F)

Default setting (Other): 400 (40 °C)

Parameter size: 2 [byte]

Parameter No. 22 Set the low temperature alarm trigger value

Available settings (US): -670 – 2570 (-67 °F – 257 °F)

Available settings (Other): -550 – 1250 (-55 °C – 125 °C)

Default setting (US): 320 (32 °F)

Default setting (Other): 0 (0 °C)

Parameter size: 2 [byte]

Parameter No. 24 Enable/Disable blinking LED when alarm being triggered

0 – Disable.

1 – Enable.

Default setting: 1

Parameter size: 1 [byte]

Parameter No. 32 Level of low battery

This parameter defines a battery level as the "low battery".

Available settings: 10 – 50 (10 % – 50 %)

Default setting: 50 (50 %)

Parameter size: 1 [byte]

09 Simplified declaration of EU conformity

REHAU AG+Co hereby declares that the device complies with the basic requirements and relevant provisions of the 2014/30/EU, 2011/65/EU and 2014/53/EU Directives.

The complete text of the Declaration of Conformity is available at the following Internet address:

www.rehau.de/zertifikate-hochbau

10 Further information

For further information and technical documents of the Water Sensor or related products like RE.HUB Gateway please refer to:

<https://www.rehau.com/ti>



Please observe the relevant technical product information, which can be obtained online at **www.rehau.com/ti**. Subject to technical changes.

This document is protected by copyright. All rights based on this are reserved. No part of this publication may be translated, reproduced or transmitted in any form or by any similar means, electronic or mechanical, photocopying, recording or otherwise, or stored in a data retrieval system.

© REHAU AG + Co
Rheniumhaus
95111 Rehau

410604 EN 11.2020