



Wintop

Temperature / Dry Input Sensor

SKU: WIN_ITEMP

Quickstart

This is a **Binary Sensor** for **Europe**. To run this device please insert fresh **2 * AAA** batteries. Please make sure the internal battery is fully charged.

After removing the cover push the tamper switch for three seconds until the red LED blinks. Inclusion and Exclusion is confirm when the tamper switch is released at this moment. The same process sends out a NIF. Removing the cover wakes up the device.

What is Z-Wave?

Z-Wave is the international wireless protocol for communication in the Smart Home. This device is suited for use in the region mentioned in the Quickstart section. (For more information about frequency regulations please refer to [the frequency coverage overview at Sigma Designs Website](#)).

Z-Wave ensures a reliable communication by reconfirming every message (**two-way communication**) and every mains powered node can act as a repeater for other nodes (**meshed network**) in case the receiver is not in direct wireless range of the transmitter.

This device and every other certified Z-Wave device can be **used together with any other certified Z-Wave device regardless of brand and origin** as long as both are suited for the same frequency range.

If a device supports **secure communication** it will communicate with other devices secure as long as this device provides the same or a higher level of security. Otherwise it will automatically turn into a lower level of security to maintain backward compatibility.

For more information about Z-Wave technology, devices, white papers etc. please refer to www.z-wave.info.



Product Description

This battery operated device combines a temperature sensor with a binary sensor using dry input connectors. Both sensor functions can be used independently. The device has a tampering protection switch that is suited for applications where the dry inputs are used for security related application. The binary sensor is issuing a wireless command whenever the connection is closed or opened. The temperature sensor needs to be polled in order to get its value. The device is IP 20 rated and can be used in dry environments only. The precision of the temperature sensor is in the range of +/- 1 °C

Attention: This is a multi purpose device with the binary sensor as primary and the temperature as secondary function. Depending on the policies used certain simplistic User Interfaces - such as VERA Dashboard - may not show the temperature value but the dry input as binary sensor only.

Prepare for Installation / Reset

Please read the user manual before installing the product.

In order to include (add) a Z-Wave device to a network it **must be in factory default state**. Please make sure to reset the device into factory default. You can do this by performing an Exclusion operation as described below in the manual. Every Z-Wave controller is able to perform this operation however it is recommended to use the primary controller of the previous network to make sure the very device is excluded properly from this network.

Safety Warning for Batteries

The product contains batteries. Please remove the batteries when the device is not used. Do not mix batteries of different charging level or different brands.

Installation

Please make sure to insert the batteries in the right direction. Don't mix batteries of different type or vendor. The device can be mounted on every flat and dry surface either using double sided adhesive tape or any type of screws.

Inclusion/Exclusion

On factory default the device does not belong to any Z-Wave network. The device needs to be **added to an existing wireless network** to communicate with the devices of this network. This process is called **Inclusion**.

Devices can also be removed from a network. This process is called **Exclusion**. Both processes are initiated by the primary controller of the Z-Wave network. This controller is turned into exclusion respective inclusion mode. Inclusion and Exclusion is then performed doing a special manual action right on the device.

Inclusion

After removing the cover push the tamper switch for three seconds until the red LED blinks. Inclusion and Exclusion is confirm when the tamper switch is released at this moment.

Exclusion

After removing the cover push the tamper switch for three seconds until the red LED blinks. Inclusion and Exclusion is confirm when the tamper switch is released at this moment.

Product Usage

The device can be mounted in every location of a room for measuring the temperature. For optimal values it is recommended to mount the sensor at a wall in a height of 1,50 m above the ground and not directly to a heater.

the binary sensor can be used as a door or window sensor. Therefore you can use a simple two-wire cable.

Node Information Frame

The Node Information Frame (NIF) is the business card of a Z-Wave device. It contains information about the device type and the technical capabilities. The inclusion and exclusion of the device is confirmed by sending out a Node Information Frame. Beside this it may be needed for certain network operations to send out a Node Information Frame. To issue a NIF execute the following action:

After removing the cover push the tamper switch for three seconds until the red LED blinks. Releasing the tamper switch issues a Node Information Frame.

Communication to a Sleeping device (Wakeup)

This device is battery operated and turned into deep sleep state most of the time to save battery life time. Communication with the device is limited. In order to communicate with the device, a static controller **C** is needed in the network. This controller will maintain a mailbox for the battery operated devices and store commands that can not be received during deep sleep state. Without such a controller, communication may become impossible and/or the battery life time is significantly decreased.

This device will wakeup regularly and announce the wakeup state by sending out a so called Wakeup Notification. The controller can then empty the mailbox. Therefore, the device needs to be configured with the desired wakeup interval and the node ID of the controller. If the device was included by a static controller this controller will usually perform all necessary configurations. The wakeup interval is a tradeoff between maximal battery life time and the desired responses of the device. To wakeup the device please perform the following action:

Removing the cover wakes up the device.

Quick trouble shooting

Here are a few hints for network installation if things dont work as expected.

1. Make sure a device is in factory reset state before including. In doubt exclude before include.
2. If inclusion still fails, check if both devices use the same frequency.
3. Remove all dead devices from associations. Otherwise you will see severe delays.
4. Never use sleeping battery devices without a central controller.
5. Dont poll FLIRS devices.
6. Make sure to have enough mains powered device to benefit from the meshing

Association - one device controls an other device

Z-Wave devices control other Z-Wave devices. The relationship between one device controlling another device is called association. In order to control a different device, the controlling device needs to maintain a list of devices that will receive controlling commands. These lists are called association groups and they are always related to certain events (e.g. button pressed, sensor triggers, ...). In case the event happens all devices stored in the respective association group will receive the same wireless command wireless command, typically a 'Basic Set' Command.

Association Groups:

Group Number	Maximum Nodes	Description
2	5	Alarm triggered by Tamper Switch
1	5	Dry Binary Input close/open

Configuration Parameters

Z-Wave products are supposed to work out of the box after inclusion, however certain configuration can adapt the function better to user needs or unlock further enhanced features.

IMPORTANT: Controllers may only allow configuring signed values. In order to set values in the range 128 ... 255 the value sent in the application shall be the desired value minus 256. For example: To set a parameter to 200 it may be needed to set a value of 200 minus 256 = minus 56. In case of a two byte value the same logic applies: Values greater than 32768 may needed to be given as negative values too.

Parameter 1: Reset

Resets the device

Size: 1 Byte, Default Value: 00

Setting	Description
00	normal operation
01	reset

Parameter 2: Command Sent on Dry Input

Defines the type of command sent when dry input triggers

Size: 1 Byte, Default Value: 00

Setting	Description
00	Alarm Report Type 2
01	Basic On or Off

Parameter 5: Operation Mode

Defines iff the sensor is in normal - ufffwakeup- mode or always on. This ufff function shall be used only for testing ufffsince its draining the battery very fast

Size: 1 Byte, Default Value: 00

Setting	Description
01	normal mode
03	always awake

Parameter 6: Temperature Offset

Allows to calibrate the temperature measurement function

Size: 1 Byte, Default Value: 00

Setting	Description
00	0 K
ce - 32	Temperature Offset in K

Technical Data

Dimensions	3.000x5.000x1.000 mm
Weight	20 gr
Hardware Platform	ZM3102
EAN	0696859123351
Battery Type	2 * AAA
Device Type	Routing Binary Sensor
Generic Device Class	Binary Sensor
Specific Device Class	Binary Sensor
Firmware Version	00.27
Z-Wave Version	02.61
Certification ID	ZC08-12120004
Z-Wave Product Id	0097.1182.4501

Supported Command Classes

- Battery
- Configuration
- Wake Up
- Association
- Version
- Basic
- Sensor Binary
- Sensor Multilevel
- Manufacturer Specific

Controlled Command Classes

- Basic

Explanation of Z-Wave specific terms

- **Controller** — is a Z-Wave device with capabilities to manage the network. Controllers are typically Gateways, Remote Controls or battery operated wall controllers.
- **Slave** — is a Z-Wave device without capabilities to manage the network. Slaves can be sensors, actuators and even remote controls.
- **Primary Controller** — is the central organizer of the network. It must be a controller. There can be only one primary controller in a Z-Wave network.
- **Inclusion** — is the process of adding new Z-Wave devices into a network.
- **Exclusion** — is the process of removing Z-Wave devices from the network.
- **Association** — is a control relationship between a controlling device and a controlled device.
- **WakeUp Notification** — is a special wireless message issued by a Z-Wave device to announces that is able to communicate.

- **Node Information Frame** — is a special wireless message issued by a Z-Wave device to announce its capabilities and functions.

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