Sensative

Strips Comfort 700

SKU: SENECOMFORT700

Quickstart

This is a **secure Alarm Sensor** for **Europe**. Please make sure the internal battery is fully charged. 1. Open up your Z-Wave Controllers app and select SmartStart inclusion.
2. Scan the QR Code (You can find the QR Code on the back of Strips or in the package).
3. Move +Switch down and remove the magnet from the back of the Strip. (Figure 1a)
4. One long LED blink means Strips has been successfully added to your Z-Wave network.
SmartStart will automatically begin 30 seconds after removing the magnets and Strips will be added within 10 minutes when it has been activated within the Z-Wave Controller range.

Important safety information

Please read this manual carefully. Failure to follow the recommendations in this manual may be dangerous or may violate the law. The manufacturer, importer, distributor and seller shall not be liable for any loss or damage resulting from failure to comply with the instructions in this manual or any other material. Use this equipment only for its intended purpose. Follow the disposal instructions. Do not dispose of electronic equipment or batteries in a fire or near open heat sources.

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.

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

Strips Comfort 700 is a very discreet multi-function sensor, with a built-in accurate temperature and humidity sensor, an ambient light sensor, 10 year battery life and our unique +Switch to trigger scenarios, its the perfect addition to any room. Strip Comfort 700 can be configured to send temperature, humidity and ambient light reports periodically, or based upon changes from last report. It can also calculate and report the average temperature periodically. You can also set Strips Comfort 700 to send alert reports when a set temperature or light level has been reached. Strips Comfort 700 comes with our +Switch slider that can be used to trigger scenarios or activate other devices such as lights or blinds. Strips Comfort 700 supports associations to enable connectivity directly with other Z-Wave Plus devices without requiring a Z-Wave gateway. Z-Wave Plus 700 series sensors bring a wealth of additional valued features such as longer range, low power consumption for extended battery life and SmartStart technology for instant enrolling. With SmartStart, device inclusion can be initiated automatically by simply removing the included magnets. The Z-Wave gateway then performs the inclusion process in the background without the need for user interaction. 700 Series provides a direct range of 100 meters, an improvement of 60 meters over the 500 series and also includes the industrys best S2 security, providing Strips with the ultimate combination of features for your smart home.

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.

Reset to factory default

This device also allows to be reset without any involvement of a Z-Wave controller. This procedure should only be used when the primary controller is inoperable.

1. Take the magnet and move it to the rounded edge and wait for the blink, then move the magnet away.
2. Repeat this 3 times, but on the 3rd repetition, keep the magnet at the rounded edge for 10 seconds. A long LED signal indicates success.

Installation

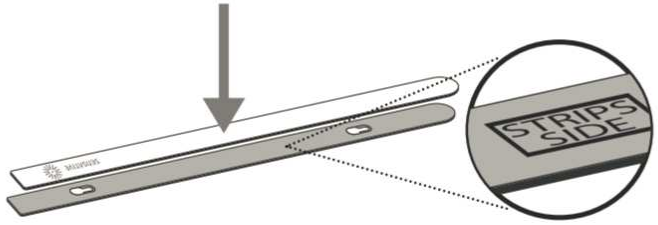
Mounting Strips with adhesive

Strips Comfort has an adhesive backing which can be used to mount Strips in an indoor environment with no direct contact with water.

Please make sure the surface is clean, dry and at least +10°C (+50°F). Remove the protective tape from Strips and place Strips firmly on a surface.

Note* Strips adhesive is permanent and may damage your Strips or surface upon removal. If you need to remove Strips make sure to follow the necessary steps at: https://sensative.com/remove

Mounting Strips with base plate



Remove the protective tape from Strips adhesive. Mount Strips Comfort on the marked Strips Side of the mounting plate as illustrated above (b).Use the plate to mark the holes, then take included screws and mount Strips to its location.
Your Strips Comfort is now mounted and added to your Z-Wave controller.

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

1. Open your Z-Wave Controller application and start pairing mode.
2. Move switch down and remove the magnet from the back of the Strip.*
3. One long LED blink means Strips has been successfully added to your Z-Wave network.

*If you have previously removed the magnet from Strips, or need to re-add the device, performing a manual wake up will join the device when the controller is in pairing mode.

Exclusion

1. Take the magnet and move it to the rounded edge and wait for the blink, then move the magnet away.
2. Repeat this 3 times. A final short blink will confirm that the user-command was successful.

Product Usage

For Good Communication:

Strips uses low power radio signals to communicate with your Z-Wave controller. For best results, please consider the following:

Strips should not be mounted directly on magnetic surfaces or encased within a metal structure as the range will reduced.
Strips range is up to 100 meters.
Any non-battery Z-Wave device will act as a repeater to increase network reliability and range.

To make sure Strips is connected to your network

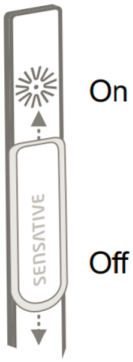
Once added to your network, Strips will send a temperature, light (LUX), air-humidity report after one minute after the inclusion is completed. Make sure Strips status has been updated in your Z-Wave controller.

Please note that

Poor network reliability will affect Strips battery life. To make sure you have a good network, place Strips at its intended location and perform a Wake Up . If Strips blinks 5 times, this indicates that Strips failed to communicate with the controller. If it happens you may move the Z-Wave controller closer or add an extender between the controller and Strips Comfort.

+Switch Features (On/off state)

- Turn on/off lights
- Turn on/off heating/radiator
- Switch between home & away mode
- Initiate a rule (e.g. email notification) Find more information about use-cases here: (sensative.com/sensors/strips-accessories/switch)



LED Notification:

1 Short Blink
-User feedback during commands
-Successfully sent report

2 Short Blinks
- The indication when Strips is not added to a network

2 Long Blink
- A user command is successfully executed.

5 Short Blinks
- Error (e.g. communication with controller failed)

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: 1. Take the magnet and move it to the rounded edge and wait for the blink, then move the magnet away.
2. Repeat this 3 times. A final short blink will confirm that the user-command was successful.

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
1	1	Lifeline
2	5	This association shall work for both Binary Switch and Timed Switch functions set in configuration parameter 29 Slider switch function
3	5	Values could be modified using the configuration parameters 33 & 34. This association shall work for both Binary Switch and Timed Switch functions set in configuration parameter 29 Slider switch function
4	5	Pre-requisite: configuration parameter no. 29 Slider switch function set to 1 (Binary Switch)OFF00 (0x00) orThe value set in the configuration parameter 35, Default is Heat Mode On01 (0x01)
5	5	Temperature Value
6	5	High temperature alarm = OFF00 (0x00) Low temperature alarm = ON255 (0xFF)Values could be modified using the configuration parameters 36 & 37
7	5	High ambient light (LUX) level trigger = ON255 (0xFF) Low ambient light (LUX) level trigger = OFF00 (0x00) Values could be modified using the configuration parameters 38 & 39

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 2: LED alarm event reporting

Turn On or Off LED for specific event indications (ex. alarms)
Size: 1 Byte, Default Value: 1

Setting	Description
0	Off
1	On, but no LED indication for associated nodes (1/5 blinks)
2	On with LED indications based on success/fail for BOTH the gateway and the associated nodes

Parameter 4: Temperature & Humidity reporting

Select temperature and humidity sensor reporting
Size: 1 Byte, Default Value: 2

Setting	Description
0	Off
1	On. Sends temperature/humidity based on difference from last reported value (set in config parameters 26 and 28)
2	On. Timed reporting of the actual temperature and the actual humidity value (set time in config parameter 25)
3	On. Timedreporting of the average temperature value between reports. Will also send the actual humidity value (set time in config parameter 25)

Parameter 5: Temperature unit

Select the temperature scaleDefault:0 (Except US frequency) or 1 (US frequency)
Size: 1 Byte, Default Value: 1

Setting	Description
0	Celcius
1	Fahrenheit

Parameter 6: Temperature alarms

Turn On or Off temperature alarm (Independent of config parameter 4 setting)
Size: 1 Byte, Default Value: 0

Setting	Description
0	Off
1	On

Parameter 7: High temperature alarm level

Select high temperature alarm level -20 to +80 (degree C) or-4 to +176 (degree F) (US frequency)Default:40 C or 104 F (US frequency)

Size: 2 Byte, Default Value: 104

Setting	Description
-4 - 176	(degree F) (US frequency)

Parameter 8: Low temperature alarm level

Select low temperature alarm level -20 to +60 (degree C) or -4 to +140 (degree F) (US frequency) Default: 5 C or 41 F (US frequency)

Size: 2 Byte, Default Value: 41

Setting	Description
-4 - 140	(degree F) (US frequency)

Parameter 9: Ambient light reporting

Turn on and off ambient light reporting. Settings 2-8 turn on ambient light reporting and adds a filter meant to decrease responsiveness of reporting, in order to avoid short fluctuations of light, such as car headlights. (Does not affect reporting as set in config parameter 10 & 11)

Size: 1 Byte, Default Value: 8

Setting	Description
0	Off
1	Reporting visual changes without filter (This configuration will affect the sensor battery life if placed where light fluctuates significantly)
2 - 8	Filter length. 2 is the fastest filter allowing quick responses. 8 is a slower filter setting and will give the longest battery life

Parameter 10: High ambient light (LUX) level trigger

The sensor will send a light report when the light rises above this level. Can be used in scenarios to trigger other devices. When enabling parameter 10, parameter 11 must also be set with a lower value, else the trigger stays off

Size: 4 Byte, Default Value: 0

Setting	Description
0	Off
20 - 64000	LUX

Parameter 11: Low ambient light (LUX) level trigger

The sensor will send a light report when the light goes below this level. Can be used in scenarios to trigger other devices. When enabling parameter 11, parameter 10 must also be set with a greater value, else the trigger stays off

Size: 4 Byte, Default Value: 0

Setting	Description
0	Off
10 - 42000	LUX

Parameter 25: Temperature and Humidity reporting time

Select the number of minutes between reports (15 mins to 24 hrs)

Size: 2 Byte, Default Value: 30

Setting	Description
15 - 1440	Minutes between reports (periodic reporting)

Parameter 26: Temperature change for next report

Temperature must change by this value for new a report

Size: 1 Byte, Default Value: 1

Setting	Description
5 - 100	Input value converted to one decimal place [= 0.5 to 10.0 (degree C/F)]

Parameter 28: Humidity change for next report

Humidity must change by this value for a new report

Size: 1 Byte, Default Value: 5

Setting	Description
2 - 10	%

Parameter 29: Slider switch function

Select if the switch should act as a binary switch or a timed switch.

Size: 1 Byte, Default Value: 1

Setting	Description
1	Binary Switch
2	Timed Switch

Parameter 30: Timed Switch duration

Select the duration that should trigger the opposite state of the Switch (if 2 is selected in parameter 29)

Size: 1 Byte, Default Value: 5

Setting	Description
1 - 60	minutes

Parameter 31: Use Multi-Command encapsulation

Send Temperature and Humidity sensor value reports and or Temperature Alarms related reports (Notification Report + Multi-Level Sensor Report + Central Scene Notification) in one message, this saves battery power. Make sure your gateway supports Multi-Command Command Class first.

Size: 1 Byte, Default Value: 0

Setting	Description
0	Off
1	On

Parameter 32: Use Central Scene Notifications

Central Scene Notifications are sent for the Slider Switch state change, High and Low Temperature Alarms and High and Low Ambient Light states. Scenes could be configured in the gateway. Scenes allow multiple devices to be controlled by a single Z-Wave command.

Size: 1 Byte, Default Value: 1

Setting	Description
0	Off
1	On

Parameter 33: Basic Set value sent to Association group 3

This parameter defines the value sent to the devices in the Association group 3 (using Basic Command Class).

Size: 1 Byte, Default Value: 255

Setting	Description
0 - 255	Basic Set value sent to Association group 3 when the slider switch is on

Parameter 34: Basic Set value sent to Association group 3

This parameter defines the value sent to the devices in the Association group 3 (using Basic Command Class).

Size: 1 Byte, Default Value: 0

Setting	Description
0 - 255	Basic Set value sent to Association group 3 when the slider switch is off

Parameter 35: Thermostat mode for Association group 4

This config parameter defines the value sent to the devices in the Association group 4 (using Thermostat Mode Command Class). Refer the Thermostat modes supported by the associated node

Size: 1 Byte, Default Value: 1

Setting	Description
1 - 13	Thermostat mode for Association group 4 when the slider switch is on

Parameter 36: Basic Set value sent to Association group 6

This config parameter defines the value sent to the devices in the Association group 6 (using Basic Command Class)

Size: 1 Byte, Default Value: 0

Setting	Description
0 - 255	Basic Set value sent to Association group 6 on High Temperature Alarm

Parameter 37: Basic Set value sent to Association group 6

This config parameter defines the value sent to the devices in the Association group 6 (using Basic Command Class)

Size: 1 Byte, Default Value: 255

Setting	Description
0 - 255	Basic Set value sent to Association group 6 on Low Temperature Alarm

Parameter 38: Basic Set value sent to the Association group 7

This config parameter defines the value sent to the devices in the Association group 7 (using Basic Command Class)
Size: 1 Byte, Default Value: 255

Setting	Description
0 - 255	Basic Set value sent to the Association group 7 on High ambient light level report

Parameter 39: Basic Set value sent to the Association group 7

This config parameter defines the value sent to the devices in the Association group 7 (using Basic Command Class)
Size: 1 Byte, Default Value: 0

Setting	Description
0 - 255	Basic Set value sent to the Association group 7 on Low ambient light level report

Technical Data

Dimensions	195 x 15 x 3.0 mm
Hardware Platform	ZGM130
IP Class	IP 20
Load	3 V
Device Type	Notification Sensor
Network Operation	Reporting Sleeping Slave
Z-Wave Version	7.13.7
Certification ID	ZC12-21030197
Z-Wave Product Id	0x019A.0x0004.0x000C
Firmware Updatable	Updatable by Consumer by RF
Z-Wave Scene Type	Central Scene
Color	White
Frequency	Europe - 868,4 Mhz
Maximum transmission power	5 mW

Supported Command Classes

- Application Status
- Association Grp Info V3
- Association V2
- Battery
- Central Scene V3
- Configuration V4
- Device Reset Locally
- Firmware Update Md V5
- Indicator V3
- Manufacturer Specific V2
- Multi Channel Association V3
- Notification V8
- Powerlevel

- Security 2
- Sensor Multilevel V11
- Supervision
- Transport Service V2
- Version V3
- Wake Up V2
- Zwaveplus Info V2

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.
