FIBARO SYSTEM

OPERATING MANUAL

US

FIBARO DOOR/WINDOW SENSOR

FGK-10x

CONTENTS

v1.0

Important safety information

Read this manual before attempting to install the device!

Failure to observe recommendations included in this manual may be dangerous or cause a violation of the law. The manufacturer, Fibar Group S.A. will not be held responsible for any loss or damage resulting from not following the instructions of operating manual.

General information about the FIBARO System

FIBARO is a wireless smart home automation system, based on the Z-Wave protocol. All of available devices can be controlled through a computer (PC or Mac), smartphone or tablet. Devices are not only receivers, but can also repeat the signal, increasing the Z-Wave network's range. It gives advantage over traditional wireless systems that require direct link between transmitter and receiver, as a result the construction of the building could affect network's range negatively.

Every FIBARO network has its unique identification number (home ID). Multiple independent networks can exist in the building without interfering. Transmission security of FIBARO System is comparable to wired systems.

Z-Wave technology is the leading solution in smart home automation. There is a wide range of Z-Wave devices that are mutually compatible, independently of manufacturer. It gives the system the ability to evolve and expand over time. For more information visit: www.fibaro.com.

#1: Description and features

FIBARO Door/Window Sensor is a wireless, battery powered reed sensor compatible with the Z-Wave standard. Changing the device's status will automatically send signal to the Z-Wave controller and associated devices.

Sensor can be used to trigger scenes and everywhere there is a need for information about opening or closing of doors, windows, garage doors, etc. Opening is detected by separating the sensor's body and the magnet.

In addition the FIBARO Door/Window Sensor supports one DS18B20 temperature sensor and has one potential free input.

NOTE

This device may be used with all devices certified with Z-Wave certificate and should be compatible with such devices produced by other manufacturers.

Main features of FIBARO Door/Window Sensor:

- Compatible with any Z-Wave or Z-Wave+ Controller
- Supports protected mode (Z-Wave network security mode) with AES-128 encryption
- Door/window opening detected through separation of Sensor's body and a magnet
- Easily mounted on doors, windows, garage gates and roller blinds
- Battery powered
- Visual LED indicator signaling status of the device
- Compatible with the DS18B20 temperature sensor
- Potential-free input allowing to connect a button or binary sensor

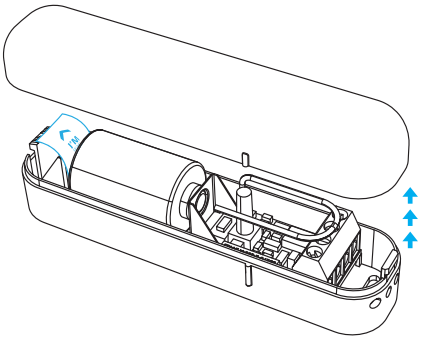
NOTE

FIBARO Door/Window Sensor is a Security Enabled Z-Wave Plus product and a Security Enabled Z-Wave Controller must be used in order to fully utilize the product.

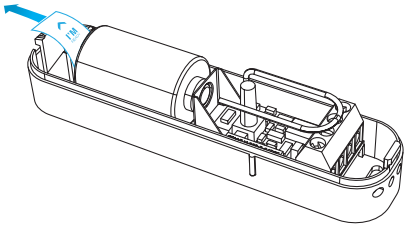
FIBARO Door/Window Sensor is a fully compatible Z-Wave PLUS device.

#2: Basic activation

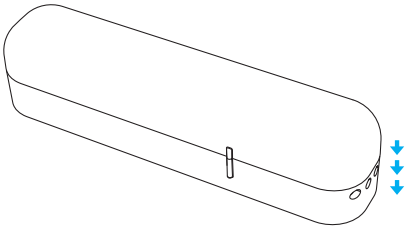
1. Open the cover



2. Remove the battery blocker



3. Close the cover



4. Add the device (see “Adding/removing the device” on page 6)
4. Install the device (see “Physical installation” on page 9)

NOTE

The antenna should be placed above the battery. Never cut, shorten or bend the antenna. Its length is suited to the band at which the system operates.

NOTE

Metal surfaces in close vicinity (e.g. metal switch boxes, metal door trims) may impair the reception capability.

#3: Adding/removing the device

NOTE

Adding in security mode must be performed up to 2 meters from the controller.

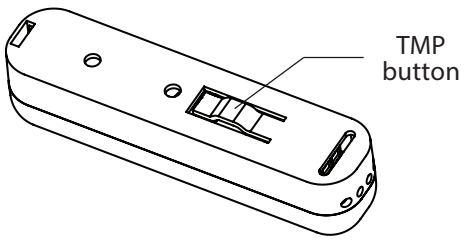
NOTE

In case the Sensor is not added, please reset the Sensor and repeat the adding procedure.

Adding (Inclusion) - Z-Wave device learning mode, allowing to add the device to existing Z-Wave network.

To add the device to the Z-Wave network:

1. Close the cover
2. Place the Door/Window Sensor within the direct range of your Z-Wave controller
3. Set the main controller into (security/non-security) add mode (see the controller's manual)
4. Quickly, three times press the TMP button



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

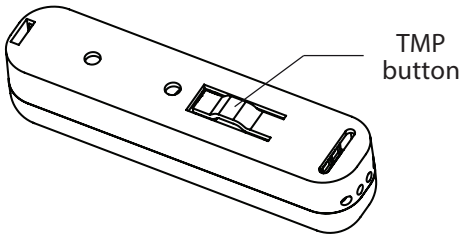
NOTE

Removing the device from the Z-Wave network restores all the default parameters of the device (except for parameter 20).

Removing (Exclusion) - Z-Wave device learning mode, allowing to remove the device from existing Z-Wave network.

To remove the device from the Z-Wave network:

1. Close the cover
2. Place the Door/Window Sensor within the direct range of your Z-Wave controller
3. Set the main controller into remove mode (see the controller's manual)
4. Quickly, three times press the TMP button



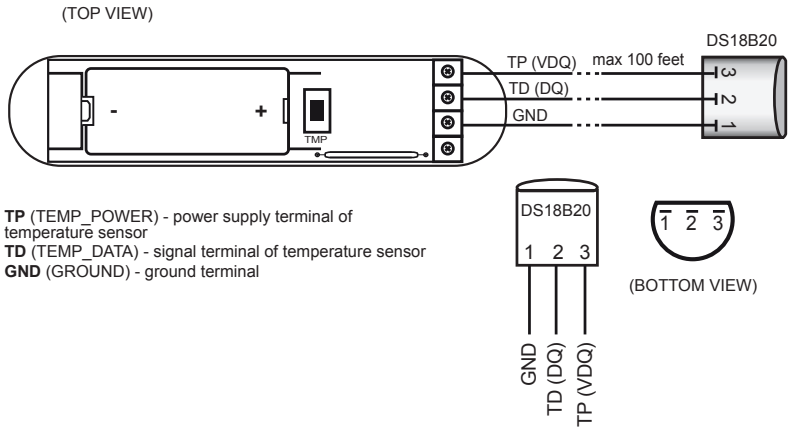
5. Wait for the removing process to end
6. Successful removing will be confirmed by the Z-Wave controller's message

#4: Temperature sensor

The DS18B20 temperature sensor may be installed anywhere where temperature readouts are necessary. If adequately protected, the DS18B20 sensor may be installed in humid conditions, under water, sealed in concrete or placed under the floor.

To activate the device with temperature measurement functionality:

1. Open the cover
2. Connect the temperature sensor to terminals of the device according to the diagram:



3. Add the device (see "Adding/removing the device" on page 6)
4. Install the device (see "Physical installation" on page 9)

CAUTION

Connected the device in accordance with the wiring diagram. Incorrect wiring may be dangerous or result in the device breakdown.

CAUTION

Connecting devices and sensors other than DS18B20 is not allowed.

NOTE

Connecting/disconnecting the temperature sensor to/from previously added Door/Window Sensor, requires removing and re-adding the device to the Z-Wave network.

#5: Button or external sensor

NOTE

Potential-free input is a type of input contact which does not have a voltage on it after closing.

CAUTION

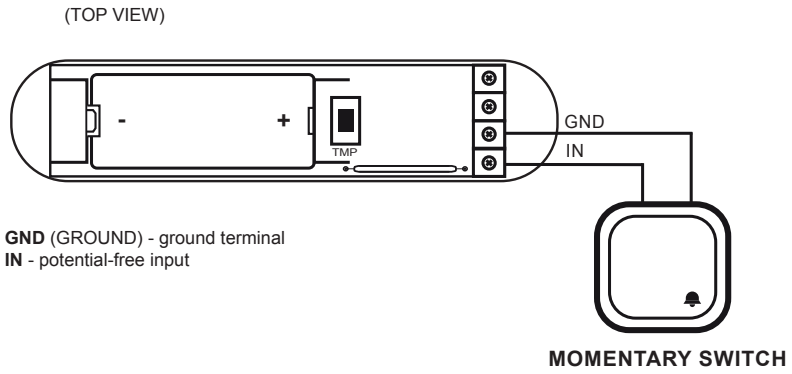
Connected the device in accordance with the wiring diagram. Incorrect wiring may be dangerous or result in the device break-down.

Door/Window Sensor is equipped with a potential-free input. It allows to change device state using the external button or sensor through GND signal.

If the Door/Window Sensor will be used only as a binary sensor, do not install the magnet.

To activate the device as a binary sensor:

1. Open the cover
2. Connect the button or external sensor to terminals of the device according to diagram:



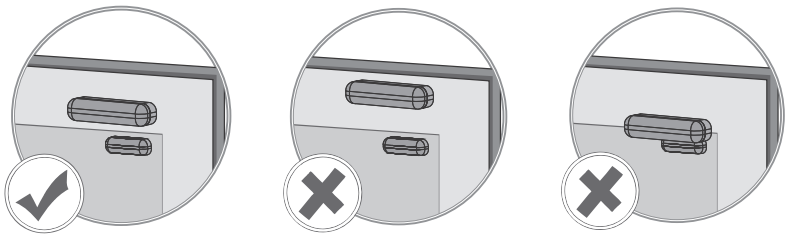
3. Add the device (see "Adding/removing the device" on page 6) if the device is not already added
4. In case of connecting external sensor modify advanced parameter no. 20 to match type of the sensor, then remove and re-add the device to the network
5. Install the device (see "Physical installation" on page 9)

#6: Physical installation

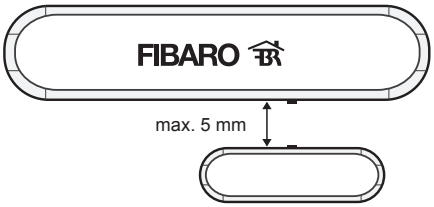
To install the Door/Window Sensor:

1. Stick the included self-adhesive pads to the bottom of the device and magnet
2. Peel off the protective layer of the sticker
3. Stick the device onto the door/window frame
4. Stick the magnet onto the moving part of the door/window, no further than 5mm from the sensor

Positioning of the Sensor and the magnet:



Correct postioning of the magnet in relation to the Sensor:



#7: Operating the device

Tamper (TMP) button:

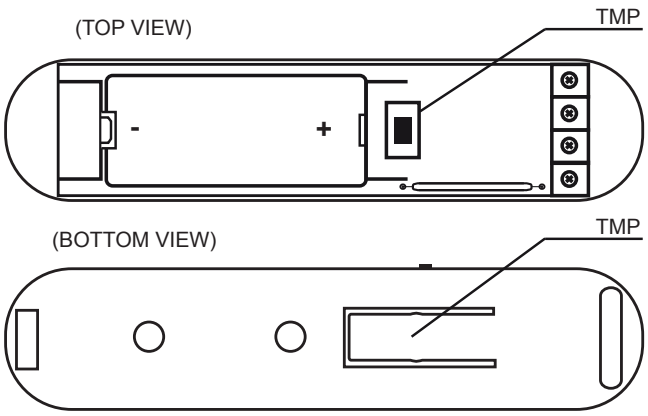
FIBARO Door/Window Sensor is equipped with a tamper switch with two buttons.

First TMP button is located inside the device, pressed by the closed cover. Second TMP button is located at bottom of the device, pressed by the surface on which the device is mounted.

For the tamper switch to work one of the buttons must always be pressed!

When one of the buttons is released, the tamper alarm will be send to the controller and associated devices.

Additionally, tamper button allows to control the device directly.

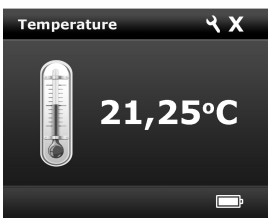


Controlling the Door/Window Sensor with FIBARO Home Center controller:

After adding the Sensor to the FIBARO System, it will be represented by one or two icons in Home Center interface.

Sensor without connected DS18B20 sensor or used with a button connected to IN input (without magnet), will be represented by a single icon.

In case of connecting DS18B20 temperature sensor, the additional temperature sensor icon will be displayed.



Waking up the Door/Window Sensor:

FIBARO Door/Window Sensor needs to be woken up to receive information about the new configuration from the controller, like parameters and associations.

To wake up the sensor manually, click one of the TMP buttons (while the other button is pressed).

NOTE

Opening the casing may result in triggering an alarm. To avoid it, remove the associations for the 5th group.

Resetting the Door/Window Sensor:

Reset procedure allows to restore the device back to its factory settings, which means all information about the Z-Wave controller and user configuration will be deleted.

1. Open the cover
2. Remove the battery
3. Install the battery while holding both TMP buttons
4. Release the TMP button within 5 seconds
5. Visual indicator will blink 3 times to confirm launching of reset procedure
6. Wait around 30s for the resetting process to end, do not remove the battery
7. Visual LED indicator will blink 6 times to confirm the reset

NOTE

Resetting the device is not the recommended way of removing the device from the Z-Wave network. Use reset procedure only if the primary controller is missing or inoperable. Certain device removal can be achieved by the procedure of removing described in “Adding/removing the device” on page 6.

Replacing the battery:

Life of the battery included with the device is from 12 to 24 months (on default settings).

In FIBARO Home Center controller current battery level is displayed in the interface. If a battery icon turns red, it means the battery needs replacement.

CAUTION

There is a risk of explosion if the battery is replaced with an incorrect type. Batteries should be recycled where possible. Dispose of used batteries according to the environmental laws in your country..

Visual indications:

FIBARO Door/Window Sensor is equipped with a LED diode, signaling sensor’s operating modes and alarms. In addition the visual indicator may inform of the Z-Wave network range.

#8: Association

NOTE

Association allows direct transfer of control commands between devices, is performed without participation of the main controller and requires associated device to be in direct range.

Association (linking devices) - direct control of other devices within the Z-Wave system network e.g. Dimmer, Relay Switch, Roller Shutter or scene (may be controlled only through a Z-Wave controller).

FIBARO Door/Window provides the association of five groups:

1st Association Group – "Lifeline" reports the device status and allows for assigning single device only (main controller by default).

2nd Association Group – "Control" is assigned to the device status (reed sensor and IN input) - sending BASIC SET control frames to the associated devices.

3rd Association Group – "Alarm" is assigned to the device status - sending alarm frames to the associated devices. Its value may be modified via advanced parameters.

4th Association Group – "Sensor ZW3" is assigned to the device status (reed sensor and IN input) - sending BASIC SET control frames to the associated devices. This group provides backward compatibility with controllers not supporting Z-Wave+.

5th Association Group – "Tamper ZW3" is assigned to the TMP switch - sending alarm frames to the associated devices in case a TMP button is released. This group provides backward compatibility with controllers not supporting Z-Wave+.

FIBARO Door/Window Sensor in 2nd to 5th group allows to control 5 regular and 5 multichannel devices per an association group, with the exception of "LifeLine" that is reserved solely for the controller and hence only 1 node can be assigned.

It is not recommended to associate more than 10 devices in general, as the response time to control commands depends on the number of associated devices. In extreme cases, system response may be delayed.

To add an association (using the Home Center controller):

1. Go to device options by clicking the icon: 
2. Select the „Advanced" tab
3. Specify to which group and what devices are to be associated
4. Wait for the configuration process to end. Sending relevant information to devices added to associated groups may take even a few minutes
5. Wake up the device manually to speed up the configuration process

#9: Advanced parameters

FIBARO Door/Window Sensor allows to customize its operation to user's needs. Settings are available in the FIBARO interface as simple options that may be chosen by selecting the appropriate box.

In order to configure FIBARO Door/Window Sensor (using the Home Center controller):

1. Go to the device options by clicking the icon: 
2. Select the „Advanced" tab

Wake up interval

Available settings: **0** or **3600-64800** (in seconds, 1h - 18h)

Default setting: **21 600** (every 6 hours)

FIBARO Door/Window Sensor will wake up after each defined time interval and always try to connect with the main controller. After a successful communication attempt, the sensor will update configuration parameters, associations and settings and will go into standby mode. After failed communication attempt (e.g. lack of Z-Wave range) the device will go into standby mode and retry to establish connection with the main controller after the next time interval.

Setting wake up interval to 0 disables sending Wake Up Notification frame automatically. Wake up may be still performed manually by a single TMP button click.

Longer time interval means less frequent communication and thus a longer battery life.

1. Operation mode

Parameter defines device operation mode.

Available settings:	**0** - Door/Window Sensor or external alarm sensor **1** - external button		
Default setting:	**0**	Parameter size:	**1** [byte]

2. Door/Window or alarm status

Parameter defines state of the sensor when the magnet is close. If the alarm sensor is connected, it determines the output type. Parameter inactive in external button mode (parameter 1 set to 1).

Available settings:	**0** - door/window closed **1** - door/window opened		
Default setting:	**0**	Parameter size:	**1** [byte]

CAUTION

Do not install the magnet if the device is not used as a Door/Window Sensor, as it might lead to the malfunction of the device.

NOTE

Values of parameter 3 may be combined, e.g. 1+2=3 means opening/closing and wake up will be indicated by the visual indicator.

3. Visual LED indications

This parameter defines events indicated by the visual LED indicator. Disabling events might extend battery life.

Available settings:	**0** - no indications **1** - indication of opening/closing status change (input IN) **2** - indication of wake up (1 x click or periodical) **4** - indication of device tampering		
Default setting:	**6**	Parameter size:	**1** [byte]

4. Range test after double click

Allows to enable activation of Z-Wave range test with double click of a TMP button.

Available settings:	**0** - disabled **1** - enabled		
Default setting:	**0**	Parameter size:	**1** [byte]

10. 2nd association group triggers

Parameter defines events which result in sending on/off commands to devices added to the 2nd association group. These commands are sent alternately to switch the devices on and off. Commands represent the values of BASIC SET command frames. Parameter is inactive in external button mode (parameter 1 set to 1).

Available settings:	**0** - switch after opening and closing **1** - switch after opening **2** - switch after closing		
Default setting:	**0**	Parameter size:	**1** [byte]

11. Commands sent to 2nd association group

Command frames sent to devices added to the 2nd association group.

Available settings:	**0** - ON **1** - OFF **2** - ON & OFF		
Default setting:	**2**	Parameter size:	**1** [byte]

12. Value of ON command frame sent to 2nd association group

The value of 0 turns OFF the device, 255 turns it ON. In case of associating the Dimmer or Roller Shutter module, values 1-99 allow to set an associated device to a specified level.

Available settings:	**0-99** or **255**		
Default setting:	**255**	Parameter size:	**2** [bytes]

13. Value of OFF command frame sent to 2nd association group

The value of 0 turns OFF the device, 255 turns it ON. In case of associating the Dimmer or Roller Shutter module, values 1-99 allow to set an associated device to a specified level.

Available settings:	**0-99** or **255**		
Default setting:	**0**	Parameter size:	**2** [bytes]

14. Time delay of ON command frame

Time period after which ON command frame will be sent.

Available settings:	**0-32400** - time in seconds		
Default setting:	**0**	Parameter size:	**2** [bytes]

15. Time delay of OFF command frame

Time period after which OFF command frame will be sent.

Available settings:	**0-32400** - time in seconds		
Default setting:	**0**	Parameter size:	**2** [bytes]

20. Type of sent alarm frames

Type of control frames transmitted to the main controller and 3rd association group "Alarm". If an external sensor is connected to IN input, it is possible to choose its functionality. Otherwise it is recommended to set this parameter to default value.

Available settings:	**0** - Door/Window Sensor (General Purpose Alarm) **1** - smoke sensor (Smoke Alarm) **2** - CO detector (CO Alarm) **3** - CO2 detector (CO2 Alarm) **4** - high temperature sensor (Heat Alarm) **5** - flood sensor (Water Alarm)		
Default setting:	**0**	Parameter size:	**1** [byte]

30. Delay of tamper alarm cancellation

Time period after which a tamper alarm will be cancelled.

Available settings:	**0-32400** - time in seconds		
Default setting:	**5**	Parameter size:	**2** [bytes]

31. Reporting tamper alarm cancellation

Reporting cancellation of tamper alarm to the controller and 5th association group.

Available settings:	**0** - do not send tamper cancellation report **1** - send tamper cancellation report		
Default setting:	**1**	Parameter size:	**1** [byte]

CAUTION

In order to activate new settings of parameter 20, it is required to remove and re-add the device to the main Z-Wave controller. This parameter is not reset during removal process.

50. Interval of temperature measurements

This parameter defines how often the temperature will be measured. The shorter the time, the more frequently the temperature will be measured, but the battery life will shorten.

Available settings:	**0** - temperature measurements disabled **5-32400 -** time in seconds		
Default setting:	**300** (5min)	Parameter size:	**2** [bytes]

i NOTE

Parameter 51 is active only if parameter 50 is not set to 0.

51. Temperature reports threshold

This parameter defines the change of temperature in comparison with last reported, resulting in temperature report being sent to the main controller.

Available settings:	**0** - temperature reports based on threshold disabled **1-300** - temperature threshold (0.1-30°C, 0.1°C step)		
Default setting:	**10** (1°C)	Parameter size:	**2** [bytes]

i NOTE

Temperature measurement is performed before sending any report (regardless of parameter no. 50). Excessive reporting can affect battery lifetime. Reporting on the basis of temperature change (parameter no. 51) is recommended.

52. Interval of temperature reports

This parameter determines how often the temperature reports will be sent to the main controller.

Available settings:	**0** - periodic temperature reports disabled **5-32400 -** time in seconds		
Default setting:	**0**	Parameter size:	**2** [bytes]

53. Temperature offset

The value to be added to the actual temperature, measured by the sensor (temperature compensation).

Available settings:	**-1000-1000** (-100-100°C, 0.1°C step)		
Default setting:	**0** (0°C)	Parameter size:	**4** [bytes]

54. Temperature alarm reports

Temperature alarms reported to the Z-Wave controller. Thresholds are set in parameters 55 and 56.

Available settings:	**0** - temperature alarms disabled **1** - high temperature alarm **2** - low temperature alarm **3** - high and low temperature alarms enabled		
Default setting:	**0**	Parameter size:	**1** [byte]

55. High temperature alarm threshold

If temperature is higher than set value, overheat notification will be sent and high temperature scene will be triggered (if activated).

Available settings:	**0-1000** (0-100°C, 0.1°C step)		
Default setting:	**540** (54°)	Parameter size:	**2** [bytes]

56. Low temperature alarm threshold

If temperature is lower than the set value, underheat notification will be sent and low temperature scene will be triggered (if activated).

Available settings:	**-300-700** (-30-70°C, 0.1°C step)		
Default setting:	**40** (4°)	Parameter size:	**2** [bytes]

70. Scene activation functionality

The device can trigger scenes using scene IDs assigned to different events.

To deactivate all scenes set the value to 0. To activate all scenes set the value to 3903.

Available settings:	**1** - [ID 10] opening door/window (single click) **2** - [ID 11] closing door/window (single click) **4** - [ID 12] holding **8** - [ID 13] releasing **16** - [ID 14] double click **32** - [ID 15] triple click **256** - [ID 50] high temperature - door/window opened **512** - [ID 50] high temperature - door/window closed **1024** - [ID 51] low temperature - door/window opened **2048** - [ID 51] low temperature - door/window closed		
Default setting:	**0** (none)	Parameter size:	**2** [bytes]

71. Alarm broadcast

Settings for broadcasting ON/OFF commands, sensor alarm and tamper alarm. Value other than 0 means alarms are sent in Broadcast Mode, to all devices only within the range of the device. They are not repeated by the mesh network.

Available settings:	**0** - broadcasts inactive **1** - ON/OFF commands broadcast active **2** - sensor alarm broadcast active **4** - tamper alarm broadcast active		
Default setting:	**0** (inactive)	Parameter size:	**1** [byte]

CAUTION

Every activated scene may shorten the battery life.

NOTE

Values of parameter 70 may be combined, e.g. 1+2=3 means scenes for opening and closing are sent.

NOTE

Scenes with IDs 12 to 15 are active only if parameter 1 is set to 1. In this case scenes with IDs 1 and 2 are sent after a single click.

NOTE

Values of parameter 71 may be combined, e.g. 1+2=3 means ON/OFF commands and sensor alarm are sent in Broadcast Mode.

NOTE

Operating in Z-Wave network security mode automatically disables sending alarms in broadcast mode.

NOTE

Values of parameter 72 may be combined, e.g. 1+2=3 means 2nd and 3rd group are sent as secure.

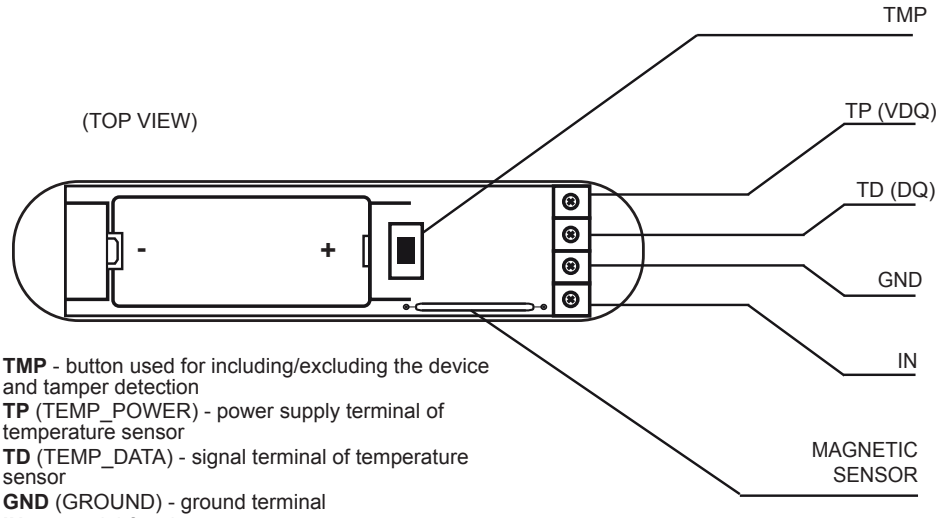
72. Associations in Z-Wave network Security Mode

This parameter defines how commands are sent in specified association groups: as secure or non-secure. Parameter is active only in Z-Wave network security mode. It does not apply to 1st group "Lifeline".

Available settings:	**0** - none of the groups sent as secure **1** - 2nd group "Control" sent as secure **2** - 3rd group "Alarm" sent as secure **4** - 4th group "Sensor ZW3" sent as secure **8** - 5th group "Tamper ZW3" sent as secure		
Default setting:	**15** (all)	Parameter size:	**1** [byte]

#10: Specifications

Power supply:	3.6V DC battery
Battery type:	ER14250 ½ AA
Inputs:	single, potential-free (IN)
EU directives compliance:	EMC 2004/108/EC R&TTE 1999/5/EC RoHS 2011/65/EU LVD 2006/95/EC
Radio protocol:	Z-Wave
Radio frequency:	868.4 or 869.8 MHz EU; 908.4 or 916.0 MHz US; 921.4 or 919.8 MHz ANZ; 869.0 MHz RU;
Range:	up to 164 ft (50 m) outdoors up to 98 ft (30 m) indoors (depending on terrain and building structure)
Operating temperature:	32–104°F (0–40°C)
Supported temperature sensor:	single, DS18B20
Dimensions (L x W x H):	2.99 x 0.67 x 0.75 inch (76 x 17 x 19 mm)



TMP - button used for including/excluding the device and tamper detection
TP (TEMP_POWER) - power supply terminal of temperature sensor
TD (TEMP_DATA) - signal terminal of temperature sensor
GND (GROUND) - ground terminal
IN - potential-free input

#11: Guarantee

This limited warranty is provided by Fibar USA, LLC (the "Company"), 1040 E. Lake Ave., Glenview, Illinois 60025, as the sole and exclusive remedy offered to a purchaser (the "Customer") of the products (the "Products") for any alleged defects in any of the Products. The warranty is subject to all terms sets forth below.

1. LIMITED WARRANTY:
Subject to the limitations of section 2, the company warrants that the products sold by the company to the customer will be free from defects in material and workmanship under normal use and regular service and maintenance for a period of one (1) year from the date of purchase of the products. The one-year period may be referred to as the "limited warranty period".

This is the sole and exclusive warranty given by the company with respect to the products and is in lieu of and excludes all other warranties, express or implied, arising by operation of law or otherwise, including without limitation, any implied warranties of merchantability, fitness for a particular purpose, non-infringement and the implied condition of satisfactory quality.

The product is not, is not intended to function or be used as, should not be used as, and shall not be deemed to be, an alarm system or home security system. The product's intended use shall not include use as an alarm system or home security system.

This limited warranty does not extend to any losses or damages due in whole or in part to misuse, accident, abuse, neglect, normal wear and tear, negligence (other than the Company's), unauthorized modification or alteration, use beyond rated capacity, unsuitable power sources or environmental conditions, improper installation, repair, handling, maintenance or application, third party actions or omissions (whether as an agent or apparent agent of the Company), criminal acts, or any other cause not the direct fault of the Company.

2. LIMITATION OF REMEDY:
If within the limited warranty period, the Customer discovers any covered warranty defects and notifies the Company within thirty (30) days of such discovery, pursuant to the Claims Procedure in Section 4 below, the Company shall, at its option and as the Customer's exclusive remedy, repair or replace F.O.B. point of manufacture.

The remedies set forth in this limited warranty are exclusive. The sole and exclusive remedy for breach of any warranty hereunder shall be limited to repair or replacement of the products.

In the event that the product cannot be repaired or replaced, the company reserves the right to substitute a product of similar technical parameters.

The company will not refund the purchase price of the original product.

Failure by the Customer to give such written notice within the thirty (30) day time period shall be deemed an absolute and unconditional waiver of the Customer's claim for such covered defects. All costs and expenses of dismantling, reinstallation and freight, including the time of the Company's personnel and representatives for site travel and diagnosis under this limited warranty, shall be borne by the Customer unless accepted in writing by the Company. Products repaired or replaced during the limited warranty period shall be covered by the foregoing limited warranty for the remainder of the limited warranty period.

The Customer assumes all other responsibility for any loss, damage, or injury to persons or property arising out of, connected with, or resulting from the use of Products, either alone or in combination with other products/components.

3. LIMITATION OF LIABILITY:
In no event, regardless of the form of the claim or cause of action (whether based in contract, infringement, negligence, strict liability, other tort or otherwise), shall the company's liability to the customer or any third party exceed the price paid by the customer for the specific products giving rise to the claim or cause of action.

To the maximum extent permitted by applicable law, the company shall not be liable to the customer or any third party for any general, direct, indirect, incidental, special, consequential, or punitive damages, including, but not limited to, loss of profits or anticipated profits, business interruption, loss of use, revenue, reputation and data, costs incurred, loss or damage to property or equipment, bodily injury, or death, arising from any claim or cause of action relating to the product, whether such is based on warranty, contract, tort (including negligence and strict liability.

These limitations shall apply notwithstanding any failure of essential purpose of any remedy. Some states and/or jurisdictions do not allow the exclusion or limitation of incidental or consequential damages so the above exclusions may not apply to certain customers.

The Customer assumes all other responsibility for any loss, damage, or injury to persons or property arising

out of, connected with, or resulting from the use of Products, either alone or in combination with other products/components.

4. CLAIMS PROCEDURE:
The Customer shall make a claim by written notice to the Company through the contact information listed on its website at www.fibaro.com or by contacting the Company through the telephone number listed on the website. Any telephone conversations will be recorded. The Company will issue a designated claim number for each claim made. The Customer may be contacted by an authorized warranty service representative to arrange a date for an inspection of the Product. This inspection shall be in the presence of the Customer. The Product that is the subject of the claim shall be made available by the Customer together with complete standard equipment and the documents confirming the Product's purchase. Covered defects (as determined by the Company or its authorized service representative) found during the limited warranty period shall be remedied within thirty (30) days from the date of inspection or the date the Product is delivered to the Company or its authorized service representative, whichever is later. The limited warranty period shall be extended by the time that the Product is in the possession of the authorized service representative or the Company.
Remember: before you submit a warranty claim, contact our technical support using telephone or e-mail. More than 50% of operational problems is resolved remotely, saving time and money spent to initiating claim procedure.

5. GOVERNING LAW AND BINDING ARBITRATION:
Please read this section carefully. It affects customers' rights and will have a substantial impact on how claims the company and the customer have against each other are resolved. This limited warranty contains a binding arbitration provision which may be enforced by the parties.

The Company and the Customer agree that any claim or dispute at law or equity that has arisen or may arise between them relating in any way to or arising out of this limited warranty or the Products will be resolved in accordance with the provisions set forth in this Section.

A. Applicable Law. The Customer and the Company agree that, except to the extent inconsistent with or preempted by federal law, the laws of the State of Illinois, without regard to principles of conflict of laws, will govern the limited warranty and Products and any claim or dispute that has arisen or may arise between the Company and the Customer, except as otherwise stated herein. The Federal Arbitration Act governs the interpretation and enforcement of this Section 5. The U.N. Convention on Contracts for the International Sales of Goods shall not apply.

B. Agreement to Arbitrate. The Company and the Customer each agree that any and all disputes or claims that have arisen or may arise between them relating to or arising out of this limited warranty or the Products shall be resolved exclusively through final and binding arbitration, rather than in a court proceeding. Alternatively, the Customer may assert his/her claims in small claims court, if the claims qualify and so long as the matter remains in such court and advances only on an individual (non-class, non-representative) basis.

The Company and the Customer agree that each of them may bring claims against the other only on an individual basis and not as a plaintiff or class member in any purported class or representative action or proceeding. Unless both the Company and the Customer agree, the arbitration may not consolidate or join more than one person's claims and many not otherwise preside over any form of a consolidated, representative, or class proceeding.

C. Opt-Out. The Customer may opt-out of this agreement to arbitrate by sending the Company a written opt-out notice, via certified mail and postmarked no later than 30 days after the date of purchase of the Product. The opt-out notice must include the Customer's name and address, the serial number of the Product purchased, and the date and location of the purchase. All other parts of this limited warranty will still apply.

D. Procedures. The arbitration shall be administered by JAMS pursuant to its Comprehensive Arbitration Rules and Procedures or pursuant to JAMS' Streamlined Arbitration Rules and Procedures, whichever as applicable. JAMS' rules are available at www.jamsadr.com. The use of the word "arbitrator" in this provision shall not be construed to prohibit more than one arbitrator from presiding over the arbitration; rather, the JAMS' rules will govern the number of arbitrators that may preside over an arbitration. The Customer will have a reasonable opportunity to participate in the selection of the arbitrator.

A Customer who intends to seek arbitration must first make a written claim against the Company pursuant to Section 4. If the Customer and the Company are unable to resolve the claim within thirty (30) days from the date of the notice, the Company or the Customer may initiate arbitration proceedings. A form for initiating arbitration proceedings is available on JAMS' website. In addition to filing the form with JAMS, the party initiating the arbitration must mail a copy of the completed form to the other party. In the event the Company initiates arbitration against a Customer, it will send a copy of the completed form to the physical address the Company has on file for the Customer.

The arbitration hearing shall be held in the county in which the Customer resides or at another mutually agreed location.

Arbitration uses a neutral arbitrator instead of a judge or jury. Discovery or the exchange of non-privileged information will be allowed pursuant to JAMS' rules. The arbitrator will decide the substance of all claims in accordance with applicable law, including recognized principles of equity, and will honor all claims of privilege recognized by law. An arbitrator can award the same damages and relief on an individual basis

that a court can award to an individual. The arbitrator's award shall be final and binding and judgment on the award rendered by the arbitrator may be entered in any court having jurisdiction thereof. An award will consist of a written statement stating the disposition of each claim, and will include a concise written statement of the essential findings and conclusions on which the award is based.

Payment of all filing, administration and arbitrator fees is governed by JAMS; provided, however, that when a Customer initiates arbitration against the Company, the fee required to be paid by the Customer is that amount designated by JAMS for consumer arbitrations. All other costs will be paid by the Company.

If an arbitrator or court decides that any part of this limited warranty is invalid or unenforceable, the other parts of the limited warranty shall still apply to the extent applicable. In the event that this agreement to arbitrate is wholly inapplicable, the Customers agree that any claim or dispute that has arisen or may arise between the Customer and the Company must be resolved exclusively by a state or federal court located in Cook County, Illinois. The Customer agrees to submit to the personal jurisdiction of the courts located within Cook County, Illinois, for the purpose of litigating all such claims or disputes.

THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

This device complies with Part 15 of the FCC Rules.
Operation is subject to the following two conditions:
1. This device may not cause harmful interference
2. This device must accept any interference received, including interference that may cause undesired operation. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
• Reorient or relocate the receiving antenna.
• Increase the separation between the equipment and receiver.
• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
• Consult the dealer or an experienced radio/TV technician for help.

Legal Notices
All information, including, but not limited to, information regarding the features, functionality, and/or other product specification are subject to change without notice. Fibaro reserves all rights to revise or update its products, software, or documentation without any obligation to notify any individual or entity.

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Except as provided above or except to the extent prohibited by applicable law, Fibaro shall not be liable for any incidental or consequential damages caused by the breach of any express or implied warranty. Fibaro assumes no liability whatsoever, and Fibaro disclaims any express or implied warranty, relating to the sale and/or use of the Fibaro products, including, but to limited to, liabilities and/or warranties relating to fitness for a particular purpose, merchantability, and/or infringement of any patent, copyright and/or other intellectual property right.

Except to the extent prohibited by applicable law, Fibaro's liability shall not exceed the price paid for the Fibaro products from direct, indirect, special, incidental or consequential damages resulting from the sue of the products, its accompanying software, or product specifications, manuals, installation guides and/or any other documentation.

Some states, provinces or jurisdictions do not allow the exclusion or limitation of incidental or consequential damages or other limitations on warranties, so the above limitations or exclusion may not apply to you. You may also have other rights that vary from state to state or province to province.

The Device may be used with any certified Z-Wave product and should work with devices from other producers. Each certified, Z-Wave compatible device, may be added to Fibaro System.

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