The Fibaro Door / Window Sensor is a wireless, battery-powered Z-Wave compatible sensor. Each time its two parts, in this case, its sensors body and a magnetic component, is wired together to add the Fibaro Door / Window Sensor supports one DS18B20 temperature sensor and has one potential free input. The Fibaro Door / Window Sensor is designed for use with scenes in home automation systems, alarm and surveillance systems and everywhere else where information related to opening / closing of doors, windows, garage gates, etc. is needed.

Technical data:

- **Power supply:** single CR14250 (1/2AA) 3.6V battery
- **Input:** single, potential-free
- **Supported temperature sensors:** single, DS18B20
- **Operating temperature:** 0 - 40 °C
- **Radio protocol:** Z-Wave
- **Radio frequency:** 868,4 MHz EU; 915 MHz AU/ NZ; 908,4 MHz US
- **Range:** up to 30m indoors, depending on building materials used and the building structure
- **Dimensions (L x W x H):** 76 x 17 x 19 mm

Technical information:

- Controlled via. Fibaro System components or any other Z-Wave compatible controller.
- Door/window opening detected through Sensor's body and a magnetic component.
- Quick installation - easily mounted on doors, windows, garage gates, using double-sided adhesive tape or screws.
- Compatible with CS18B20 temperature sensors.
- When connecting CS18B20 use one wire lead, no longer than 30 cm.
- May be connected to a switch via potential-free Tri input.
- Controls modules should be made specifically according to the diagrams presented in this manual. Incorrect connections may be hazardous or lead to device damage.

### General Information on the Fibaro System:

Fibaro is a bidirectional wireless system. This means the signal is not only sent from the receivers but also the transmitters and the fiber node can react to the condition of receivers, which allows us to check whether or not a device has actually been switched on. The safety of transmission of the Fibaro System is compatible with a wired bus system. Fibaro operates in the free band for data transmission. This frequency depends on the radio regulations in each individual country.

Each Fibaro network has its own unique network identification number (home ID), which is why no two independent systems may be installed in a building without any interference.

Although the Z-Wave technology is fairly new, it has already been accepted as an official standard, just like Wi-Fi, because manufacturers from various fields offer solutions based on Z-Wave technology compatible with one another. This makes the system fit for the future and allows for further development. For more information go to www.fibaro.com.

Fibaro establishes a dynamic network structure. From the moment of startup, the location of respective devices of the Fibaro System is updated automatically, in real time, by confirming their condition in the working mesh network.

### II Sensor Installation:

1. Connect Fibaro Door/Window Sensor according to the appropriate diagram (if necessary)
2. Place battery inside the sensor's casing
3. Connect DS18B20 sensor (if necessary)
4. Install Fibaro Door/Window Sensor according to diagram 4.

### EXPLANATION OF CONDUCTOR MARKINGS:

- **TMP** - Solder terminal, connects sensor, used also as a service input. To include/exclude the device to/from the Z-Wave network.
- **IN** - Potential-free input
- **TP** - (TEMP POWER) - Power out for CS18B20 temperature sensor
- **TD** - (TEMP DATA) - Signal terminal for CS18B20 temperature sensor
- **GND** - (GROUND) - Ground terminal.

NOTE! To ensure the most accurate position detecting always install the magnet on the surface of the device, as shown on diagram 4.

### Technical information:

- **Range:**
  - 921.4 MHz AU/NZ;
  - 908.4 MHz US;
  - 868.4 MHz EU;
- **Z-Wave frequency:**
  - 868.4 MHz EU;
  - 915 MHz AU/ NZ;
  - 908.4 MHz US;
- **Range:**
  - up to 30m indoors, depending on building materials used and the building structure
- **Dimensions (L x W x H):** 76 x 17 x 19 mm

### III Fibaro Sensor Start-up

#### 2. Resetting the Fibaro Door/Window Sensor

There is one way to reset the Fibaro Door/Window Sensor: The procedures differ depending on the current version of Home Center 2 and the Fibaro Door/Window Sensor's country configuration.

To reset the Fibaro Door/Window Sensor please follow below instructions:

1. **Inclusion:**
   - Take off the Sensor's cover and remove battery. Make sure the TMP button is intact.
   - Touch the Sensor's body with a magnet.
   - Touch the battery with a magnet.
   - Re-install the battery.
   - Reset will be confirmed by double LED blink.

2. **Exclusion:**
   - Take off the Sensor's cover and remove battery. Make sure the TMP button is intact.
   - Touch the Sensor's body with a magnet.
   - Touch the battery with a magnet.
   - Re-install the battery.
   - Reset will be confirmed by double LED blink.

### GLOSSARY OF TERMS:

- **INCLUSION** - the device sends out a Node info frame, which enables possibilities to add it to the Fibaro System (Home Center 2).
- **EXCLUSION** - removes the device from the Fibaro System.
- **ASSOCIATION** - controlling other devices included in the Fibaro System.
- **Multi Channel Association** - controlling other multi-channel devices installed in the Fibaro System.

### III Fibaro Sensor Start-up

#### 1. Installation of the Door/Window Sensor

**STEP 1**

Install the device observing the Figure 4 for correct positioning of the Sensor and the magnet. Close the Sensor's casing.

**STEP 2**

The Fibaro modules must be in range of the Home Center 2 controller, because the procedure of inclusion to the Fibaro System requires direct communication with the controller.

**STEP 3**

Locate TMP button, which allows for proper inclusion of device.

### BATTERY USE:

- The Fibaro Door/Window Sensor's battery life is up to 2 years, on default settings.

### NOTE!

- Every time any changes are made to the configuration of TP and TD lines (1-wire), i.e. when DS18B20 sensor is connected/disconnected, it is necessary to execute the procedure of exclusion and repeated inclusion of the sensor module to the Z-Wave network. Learning mode only after connected DS18B20 sensor has been detected (about 10 s).

### NOTE!

- Do not connect sensors other than CS18B20 to the 1-wire line (TP and TD terminals).

### NOTE!

- It is prohibited to connect the TP and TD lines to devices not compatible with the 1-wire protocol.

---

**Diagram 1 - General**

**Diagram 2 - Connection to DS18B20 sensor**

**Diagram 3 - Example connection - momentary switch**

**Diagram 4 - Correct positioning of the Sensor and the magnet**

**Diagram 5 - Correct sensor installation**

**Diagram 6 - Incorrect sensor installation**
V Configuration

The Door / Window Sensor offers a wide range of advanced settings. The parameters listed below are available in the Fibaro configuration interface.

In order to configure the Fibaro Door / Window Sensor (using the Home Center controller) go to the device options by clicking on the icon.

Next, select the device options tab.

Device parameters:

Parameter no. 1

Input / alarm cancellation delay. Additional delay after an alarm input turn off has occurred. The parameter allows users to specify additional time, after the alarm input is cancelled once in violation cleared.

Default value: 0

Available parameter settings: 0 – 5000 s

Parameter value: 2 [byte]

Parameter no. 2

Status change signaled by LED. Default setting: 1

Available parameter settings: 1 – LED On, 0 – LED Off

Parameter value: 1 [byte]

Parameter no. 3

Type of control frame transmitted to association group (1-advanced, 3-simple).

Default value: 0 – INPUT NC (Normal Close)

Available parameter settings: 0 – INPUT NC (Normal Close), 1 – IN broadcast mode active, 2 – TMP broadcast mode active, 3 – IN and TMP broadcast mode active

Parameter value: 1 [byte]

Parameter no. 5

Type of temperature control frame transmitted to association group (1-advanced, 3-simple).

Default value: 255 – BASIC SET

Available parameter settings: 0 – 4, 1 – FIBARO Generic frame, 2 – ALARM CO frame, 3 – ALARM CO frame, 4 – ALARM HEAT frame, 5 – ALARM WATER frame, 255 – Control Basic frame, 256 – Control Simple frame

Parameter value: 1 [byte]

Parameter no. 6

Value of the parameter specifying the threshold of dimming/opening roller blinds when "switch on" / "open" commands are sent to the motor controller (0-100).

In case of alarm frames an alarm priority is specified.

Default value: 255

Possible parameter settings: 0 to 255

Parameter value: 255 [byte]

Parameter no. 9

Checking the presence of the alarm cancelling frame or the control frame describing the device (Basic). It allows for disabling the function of cancelling the device and alarming for devices associated with the input.

Default value: 1

Available parameter settings: 0 – for association group no. 1 information is sent 1 – for association group no. 2 information is not sent

Parameter value: 1 [byte]

NOTE! If the temperature sensor icon is not displayed, this means the wiring for the temperature sensor has not been connected, or if the temperature readings are incorrect, inspect the connections on the 1-wire bus, in particular the connection between sensor output and the line, and the insulation of the bus which should not exceed 20m.

VI Additional Functionality

Alarm Frame Support.

The Fibaro System allows you to set the device’s reaction to alarm (motion detector in SENSOR ALARM REPORT frame). The Fibaro Door/Window Sensor sends alarm frames of different types, depending on the selected mode. The user should declare what type of alarm frame for each connected sensor. For example, for a garage door, you could set in the input turn off option to declare that the type 1–ALARM SMOKE frame (case if 1 should be enabled), to inform the remaining Z-Wave network devices the information on smoke detector alarms correctly.

VII Door / Window Sensor operation

The Fibaro Door/Window Sensor may be operated using:

- System compatible controller (e.g. Home Center 2)
- Cellular phone (e.g. iPhone or phones from other manufacturers, with appropriate software installed)
- Computer (e.g. PC), using the FIBARO Sensor software installed inside the housing.
- Other object, improper use or not observing the operating manual);

 damages caused by malfunctioning software attack on a computer virus, or by failure to update the software as recommend-

 damages resulting from surge in the power and telecommuni-

 damages caused by temperature, humidity, natural disasters, earthquakes, wind, disturbance, fire in the apartment, unauthorised access, theft, water damage, electric shock, or other natural calamities;

 damages caused by incorrect, reckless or non-technical (e.g. high humidity, dust) and non-technical (e.g. too high/warm temperature, damaged, non-permissible conditions for operating the Device are defined in the operating manual).

 damages caused by using accessories not recommended by the Manufacturer;

 damages caused by faulty electrical installation of the Customer;

 damages caused by customer's failure to provide maintenance and service activities defined in the operating manual;

 damages resulting from the use of spurious parts or accessories improper for given model;

 damages resulting from the introduction of alterations or damages resulting from the use of incorrect fuses;

 damages resulting from operation outside the range of permissible conditions for the use.

 IX Guarantee


2. The Manufacturer is responsible for equipment malfunction resulting from the use of faulty products (manufacturing defects) of the Device for 12 months from the date of the purchase.

3. During the Guarantee period, the Manufacturer shall remove any defects, free of charge, by replacing or repairing the part of the Device having technical parameters similar to the faulty one. Such replacement or repair should be done in accordance with the螺旋al Group’s technical documentation as such elements have a defined operational lifetime.

4. If a defect is not covered by the Guarantee, the Customer shall bear the cost of fault diagnosis and required repairs.

5. When the Guarantee claim is submitted correctly, the Customer shall receive the claim confirmation, with 1 unique number (internal Manufacturer Authorization Number).

6. When the Guarantee claim form is submitted incorrectly, the Customer shall receive the claim confirmation, with 1 unique number (internal Manufacturer Authorization Number).

7. The guarantee claim form is submitted correctly, a representative of the Authorized Guarantee Service (hereinafter as "AGS") shall contact the Customer.

8. Defects revealed within the guarantee period shall be removed not later than 30 days from the day of guarantee period expiry. The guarantee period shall be extended by the time in which the AGS claims service took place.

9. In the event of the original device unavailability, the Manufacturer shall have the right to replace the original device with a similar one.

10. The Manufacturer is responsible for the property of the Manufacturer. The Guarantee for parts replaced in the guarantee period of the original device. The guarantee period of the replaced part shall not be extended.