The Fibaro Smoke Sensor is a ultrasonic, optical Z-Wave smoke sensor. The device can be hard wired (12 or 24 VDC) or battery operated (6 batteries). Smoke detection is triggered through a constant current powering mode or via power consumption. In case of smoke detection, the device will send a signal to an alarm system or fire alarm system hub. The device typically monitors the battery level and a low battery is signaled with a constant sound signal and LED diode blinking red. Once the smoke alarm has ceased, the sensor checks 3 times in a row whether the smoke is actually present. Once the smoke presence is confirmed, the device will react. Fibaro Smoke Sensor performs a self inclusion function which can be triggered manually by triple clicking the B-button. The sensor can be reset by pressing the B-button in duration of 3 seconds. The Fibaro Smoke Sensor’s battery life is approximately 3 years when powered from the battery. In order to turn off the auto inclusion function press the B-button once after the power has been switched to the Fibaro Smoke Sensor.

**Diagram 1 - DC Power adapter connection.**

![Diagram 1](image1)

**Figure 1 - Fibaro Smoke Sensor top view.**

![Figure 1](image2)

**Diagram 2 - Alarm system hub connection.**

![Diagram 2](image3)

**Fig. 1 - Fibaro Smoke Sensor top view.**

**Fig. 2 - Constant current or alarm system hub connecting terminals.**

**POWERING MODES**

There are two powering modes for the Fibaro Smoke Sensor. By default it’s powered by a battery. Additionally, it can work with a constant current, after connecting a 12 / 24 VDC power source to +12V/GND and GND terminals (see diagram #1). Powering mode configuration is carried out automatically, while sensor is being included into the Z-Wave network. When power connected, the Fibaro Smoke Sensor becomes a multi channel device. In the Home Center 2 menu it will be presented as two separate devices, depending on the main controller software version.

**DIAGRAMS DESCRIPTION:**

- **V. SMOKE DETECTION**
- **VI. DETECTING FIRE THROUGH TEMPERATURE ALARM**
- **VI. MOUNTING**
- **VII. MOUNTING**
- **VIII. VOLTAGE / CURRENT**
- **IX. SENSORS’ SENSITIVITY LEVEL CONFIGURATION**
- **X. SELECTING THE FIBARO SMOKE SENSOR**
- **XI. OPERATING THROUGH THE Z-WAVE NETWORK**

**VI. DETECTING FIRE THROUGH TEMPERATURE ALARM**

Smoke sensor with new one.

1) Smoke sensor is connected to the main controller periodically. Smoke detection is sent immediately. Configuration communication is signaled by an interval alarm sound and LED blinking.

2) Make sure the device has the power connected.

3) Press and hold the B-button for 3 seconds. LED will glow white and short alarm sounds.

4) Release the Button.

5) Wait until the LED blinks yellow signaling entering the menu level.

6) Press the B-button briefly to confirm menu level choice.

**XI. OPERATING THROUGH THE Z-WAVE NETWORK**

Fibaro Smoke Sensor has a built in smoke detector and a temperature sensor, which makes it a multi channel device. In the Home Center 2 menu it will be presented as two devices, depending on the main controller software version.

Fibaro Smoke Sensor can be automatically deactivated a malfunction. An described in section V, the Fibaro Smoke Sensor performs a self test every 5 seconds. If a malfunction is detected, e.g. damaged smoke channel or an incorrect voltage was detected, the device will not work and will be sent to the Z-Wave network controller and activated automatically. If a malfunction is not detected, it’s recommended to:

- check the power source (replace battery or check VDC adapter’s voltage).
- check whether the Smoke Sensor is expected to be turned off.

If a malfunction is continuously reported, it’s recommended to replace it with a Fibaro Smoke Sensor with new one.

**XI. OPERATING THROUGH THE Z-WAVE NETWORK**

Device reset will not remove it from the Z-Wave network main controller’s memory. Before resetting the device, it must be excluded from the Z-Wave network.

**DIAGRAMS DESCRIPTION:**

- **VI. DETECTING FIRE THROUGH TEMPERATURE ALARM**
- **VI. MOUNTING**
- **VII. MOUNTING**
- **VIII. VOLTAGE / CURRENT**
- **IX. SENSORS’ SENSITIVITY LEVEL CONFIGURATION**
- **X. SELECTING THE FIBARO SMOKE SENSOR**
- **XI. OPERATING THROUGH THE Z-WAVE NETWORK**

**VI. DETECTING FIRE THROUGH TEMPERATURE ALARM**

Smoke sensor with new one.

1) Smoke sensor is connected to the main controller periodically. Smoke detection is sent immediately. Configuration communication is signaled by an interval alarm sound and LED blinking.

2) Make sure the device has the power connected.

3) Press and hold the B-button for 3 seconds. LED will glow white and short alarm sounds.

4) Release the Button.

5) Wait until the LED blinks yellow signaling entering the menu level.

6) Press the B-button briefly to confirm menu level choice.

**XI. OPERATING THROUGH THE Z-WAVE NETWORK**

Fibaro Smoke Sensor has a built in smoke detector and a temperature sensor, which makes it a multi channel device. In the Home Center 2 menu it will be presented as two devices, depending on the main controller software version.

The Fibaro Smoke Sensor can automatically detect a malfunction. An described in section V, the Fibaro Smoke Sensor performs a self test every 5 seconds. If a malfunction is detected, e.g. damaged smoke channel or an incorrect voltage was detected, the device will not work and will be sent to the Z-Wave network controller and activated automatically. If a malfunction is not detected, it’s recommended to:

- check the power source (replace battery or check VDC adapter’s voltage).
- check whether the Smoke Sensor is expected to be turned off.

If a malfunction is continuously reported, it’s recommended to replace it with a Fibaro Smoke Sensor with new one.

**XI. OPERATING THROUGH THE Z-WAVE NETWORK**

Device reset will not remove it from the Z-Wave network main controller’s memory. Before resetting the device, it must be excluded from the Z-Wave network.
XII. ASSOCIATIONS
Through an association Fibaro Smoke Sensor may control another Z-Wave device and vice versa. For example, a user may set an association on the main controller to wake up the Fibaro Smoke Sensor at defined time interval and on which the Smoke Sensor will always try to detect the presence of smoke. The Fibaro Smoke Sensor will wake up at defined time interval and will ALWAYS try to detect the presence of smoke. This parameter is relevant only in the battery powering mode.

1. Smoke alarm cancellation delay
This parameter allows for specifying the moment in which the Black Box starts sending temperature report. The temperature report will only be sent if there is a difference in temperature value reported. If this parameter is set to 0, the Black Box will be periodically checking the temperature. This parameter does not affect the communication with the Z-Wave network.

2. Temperature report interval
This parameter allows for specifying the moment in which the Black Box starts sending temperature report. The temperature report will only be sent if there is a difference in temperature value reported. If this parameter is set to 0, the Black Box will be periodically checking the temperature.

XVII. ADVANCED CONFIGURATION
WAKE UP INTERNAL (3 bytes)
Default setting: 14400 (48h) available settings: 1 - 255 (5s-24h)
3. Temperature measurement compensation (parameter 72) when sending temperature report.
This parameter allows for specifying the moment in which the Black Box sends the temperature report. The temperature report will only be sent if there is a difference in temperature value reported. If this parameter is set to 0, the Black Box will be periodically checking the temperature.

XVIII. BATTERY USE WARNING
Fibaro Smoke Sensor is a battery-powered device. Using batteries other than those specified in warning might result in damage to the device. Dispose of properly, observing environmental protection rules.

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