



# Fire Alarm Smoke Detector

## CV212-12

425232.003RE (425232.003PƏ)

### Operational Manual

## INTRODUCTION

The purpose of the Operational Manual is to give understanding of the design, operation and service instructions of the fire alarm smoke detector CV212-12 (hereinafter “smoke detector”).

The smoke detector complies with EN-14604 and certified in the EU, Certificate No. 1438CPR-0445.

## 1 APPLICATION

1.1 The smoke detector is designed to detect fires accompanied by smoke and issue audible and light fire alarm signals.

1.2 The smoke detector is self-contained.

1.3 The smoke detector is designed for continuous operation in enclosed spaces of ground stationary facilities.

1.4 Operating conditions:

- Ambient air temperature: -10 to +50°C;
- Relative air humidity: up to 95% at a temperature of 35°C;
- Atmospheric pressure: 84 to 107 kPa.

## 2 SPECIFICATIONS

2.1 Basic specifications:

- Min sensitivity: 0.05 dB/m;
- Uptime: max. 15 sec;
- Supply voltage: 3 V;
- Current consumption: max. 2  $\mu$ A;
- Built-in battery capacity: 2400 mA·h;
- Sound pressure level at 3 m: min. 85 dB;

Smoke detector dimensions:

- max. diameter: 105 mm,
- max height: 105 mm.

2.2 The smoke detector tripping is followed by an audible signal and built-in LED flashing.

2.3 Tripping output is not retained after the exposure to combustion products is no longer present.

2.4 Max. weight of the smoke detector with a socket is not more than 0.15 kg.

## 3 PRODUCT DESIGN AND OPERATION

3.1 The smoke detector is an automatic optoelectronic device that generates acoustic and optical alarm on exceeding the threshold value of smoke density at the site of its installation.

3.2 The smoke detector is a device consisting of the detector and the base.

3.3 A non-removable battery powering the detector for at least 10 years is built into the smoke detector housing.

3.4 General view of the smoke detector is shown in Fig. 1.

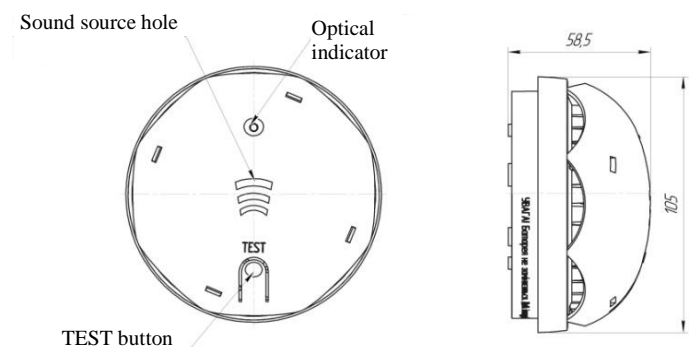


Fig. 1. General view of the smoke detector

3.5 The housing of the smoke detector includes an optical status indicator (red LED). The housing also has a TEST button.

3.6 When the smoke detector is in the STANDBY mode, the optical indicator flashes once every 6 minutes. When the smoke detector switches into the ALARM mode, the optical

indicator flashes once per second, followed by an intermittent audible signal with variable frequency.

## 4 SAFETY

4.1 Design of the smoke detector ensures its fire safety during operation.

4.2 When installing, replacing or removing the smoke detector, the rules of working at heights should be observed.

## 5 SETTING-UP AND INSTALLATION

5.1 The smoke detector must be installed at the monitored facility only by qualified personnel in accordance with the project documentation, standards, construction rules and regulations, and this Operational Manual.

5.2 Do not install the smoke detector in places where release of corrosive gases, vapours or sprays is possible.

5.3 When carrying out repair work in the premises where the smoke detectors are installed, protect them from construction material (whitewash, paint, cement dust, etc.).

5.4 Setting-up procedure:

5.4.1 Adjust the smoke detector in the base as in Fig. 2.

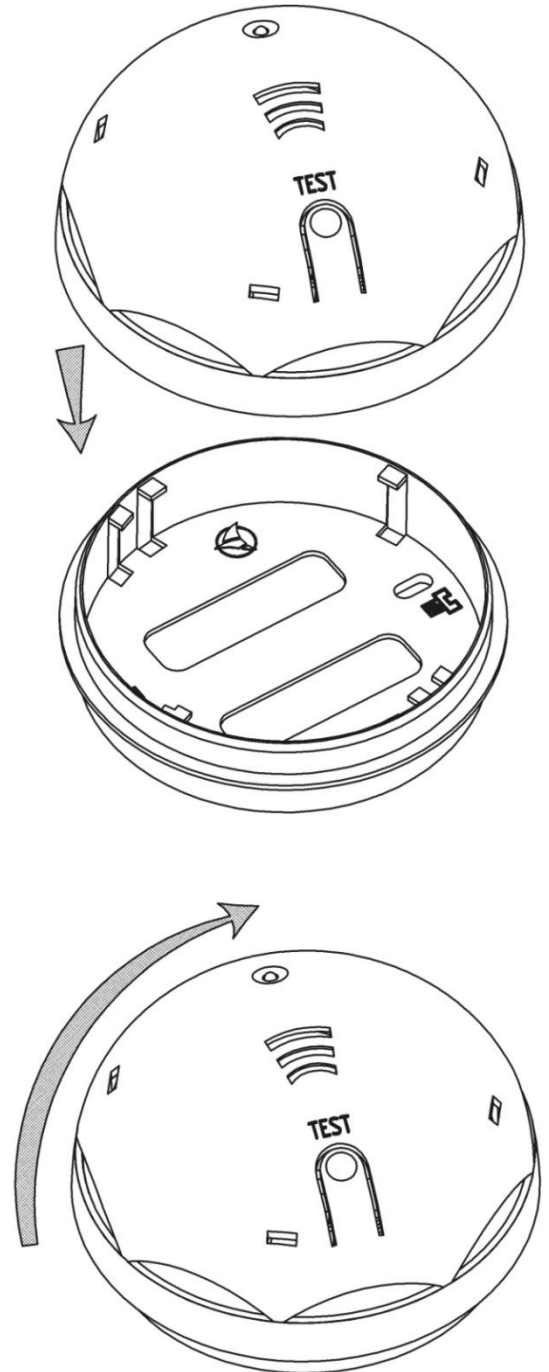


Fig. 2. Adjusting the smoke detector in the base

5.4.2 Press the TEST button and hold it down for 3-5 seconds. An optical indicator will flash, and an intermittent audible signal will be generated. The audible and light signals will stop after releasing the button (see. Fig. 3).

## POSITIONING THE SMOKE DETECTOR

### **Recommended locations:**

#### **Minimum protection:**

In all rooms, such as bedrooms, living room, study and suchlike, as well as along escape routes such as corridor or hallway.

#### **Maximum protection:**

- Smoke alarms in all rooms (except bathrooms, kitchens, garages etc.)
- Heat alarms can be installed in bathrooms, kitchens, laundry rooms or boiler rooms and garages; within 5 meters of a potential fire.

Place the smoke alarm preferably in the middle from the ceiling. At least 50 cm of the wall.

For pitched roofs place the smoke alarm on the slope, at least 90 cm away from the ridge of the roof.

It is not recommended to install detectors on vertical surfaces.

- Make sure the smoke alarm is always accessible for testing and cleaning (Figure 7).

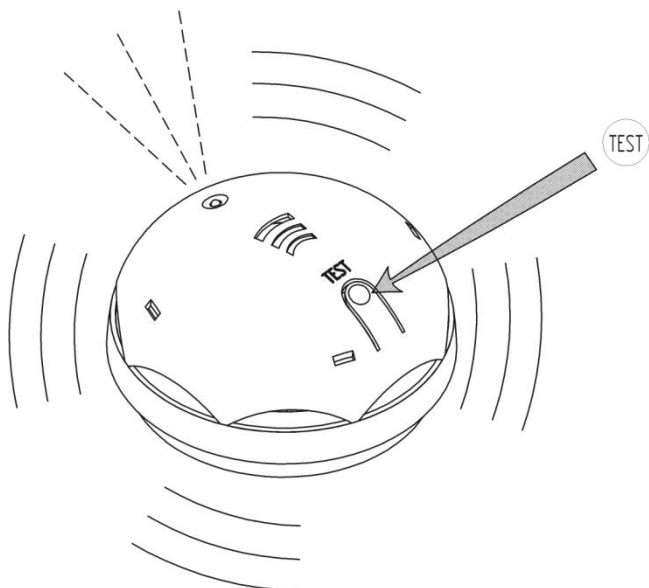


Fig. 3.

5.4.3 Remove the smoke detector from the base by turning it counter-clockwise as in Fig. 4.

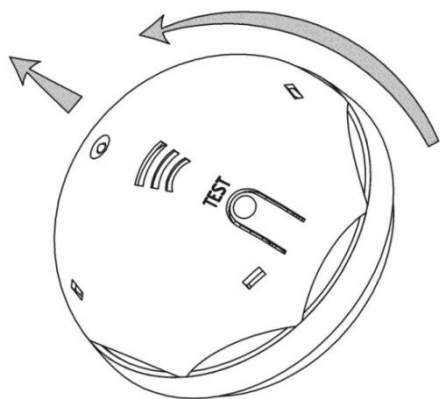


Fig. 4. Removing the smoke detector

5.4.4 Fix the base at the smoke detector installation point using the mounting holes as in Fig. 5.

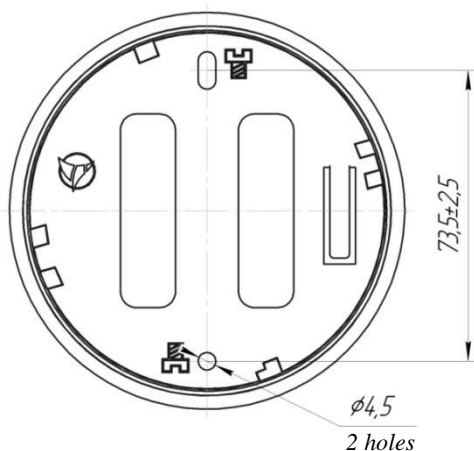
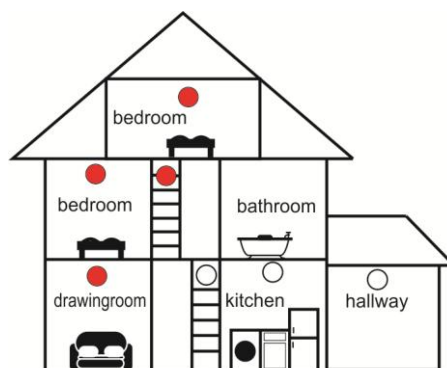


Fig. 5. Base. Appearance.

5.4.5 Adjust the smoke detector in the base (see Section 5.4.1). The smoke detector is ready for operation.



- Smoke alarm device for minimum protection
- Smoke alarm device for improved protection

### **single level**

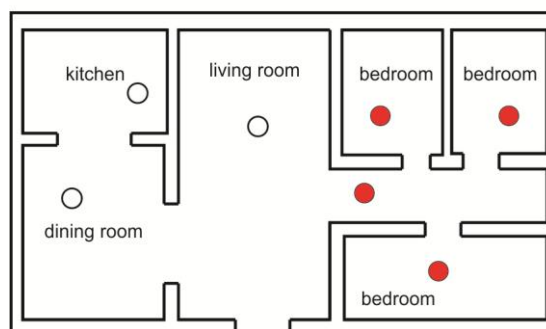


Fig. 7 Make sure the smoke alarm

## 6 SMOKE DETECTOR MODES AND INDICATION

### 6.1 STANDBY mode

In max. 15 seconds after the adjustment in the base, the smoke detector will switch into the standby mode, and the optical indicator will flash once every 6 minutes.

### 6.2 TEST mode

Press the TEST button and hold it down until you hear an audible signal and optical indicator flashes; then release the button. After a short time, the audible signal and optical indicator flashing will stop.

### 6.3 FIRE mode

After the smoke level exceeds the allowable value, the smoke detector will switch into the PRE-ALARM mode (frequent LED flashing), and then into the FIRE mode.

The FIRE mode is indicated by an audible signal and flashing of the built-in optical indicator.

The FIRE mode is not retained after exposure to combustion products is no longer present, and the smoke detector will switch into the standby mode (see Section 6.1).

### 6.4 MUTE mode

After the smoke detector switches into the FIRE mode (see Section 6.3), MUTE mode can be activated by pressing and holding the TEST button. Audible signal and FIRE mode indication will then stop, and the LED will flash once every 10 sec.

### 6.5 REDUCED SENSITIVITY mode

When the smoke detector is in the STANDBY mode (see. Section 6.1), REDUCED SENSITIVITY mode can be activated by pressing the TEST button and holding it down for at least 3 seconds.

The LED flashing once every 10 seconds indicates that the smoke detector is in the MUTE mode.

The smoke detector will switch into the STANDBY mode automatically in max. 10 minutes.

To switch the smoke detector from the REDUCED SENSITIVITY mode into the STANDBY mode, press the TEST button again.

## 7 MAINTENANCE

7.1 Purge the smoke detector with air for 1 minute on all sides using the vacuum cleaner or any other compressor with a pressure of  $(0.5-2) \text{ kg/cm}^2$ , then test the smoke detector (see Section 5.4) at least once every 6 months.

## 8 DISPOSAL

8.1 The smoke detector CV212-12 poses no danger to human life and health or to the environment after the end of its life.

After the end of the service life, the battery must be removed and disposed separately in accordance with the applicable law.

## 9 MANUFACTURER'S WARRANTY

The manufacturer guarantees that the fire alarm smoke detector CV212-12 complies with the requirements of EN 14604 provided that the customer observes requirements for installation, operation and maintenance listed in the operational documentation for the smoke detector.

**WARNING! Do not attempt to modify the circuit or design of the smoke detector in any way.**

The warranty period of the smoke detector is at least 10 years from the date of installation.

Warranty period of storage until installation is up to 12 months from the product manufacturing date.

## 10 SCOPE OF SUPPLY

No.	Name	Quantity
1	Fire Alarm Smoke Detector CV212-12	1
2	Operation manual 425232.003RE (425232.003Pᅇ)	1
3	Dowel 06×30	2
4	Screw 4.0×25	2
5	Unit package	1

Fire Alarm Smoke Detector CV212-12

Serial

No. \_\_\_\_\_

Date of

manufacture \_\_\_\_\_

\_\_\_\_\_

**MANUFACTURER:**

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