EN 14604 2005 AC:2008

EN 50291-1 2018

Jeweller

FireProtect 2 (Heat/Smoke) Jeweller

Wireless fire detector with smoke and heat sensors. Features a built-in siren for alarms and events notification. Operate as part of the Ajax system or without pairing an Ajax hub.

Find the detailed information on the device at:

support.ajax.systems/en/manuals/fireprotect-2-heat-smoke/

The device is available in two versions: with replaceable or sealed batteries. The name of a detector with replaceable batteries contains the **RB** mark, and with sealed batteries — **SB**.

- FireProtect 2 **RB** (Heat/Smoke) Jeweller
- FireProtect 2 **SB** (Heat/Smoke) Jeweller

Key features

Accurate detection of threats

1. HazeFlow 2 smoke detection algorithm to filter false alarms
2. Dual-spectrum optical sensor ignores vapour and water steam
3. Maintenance-free smoke chamber that does not require regular clean-ups

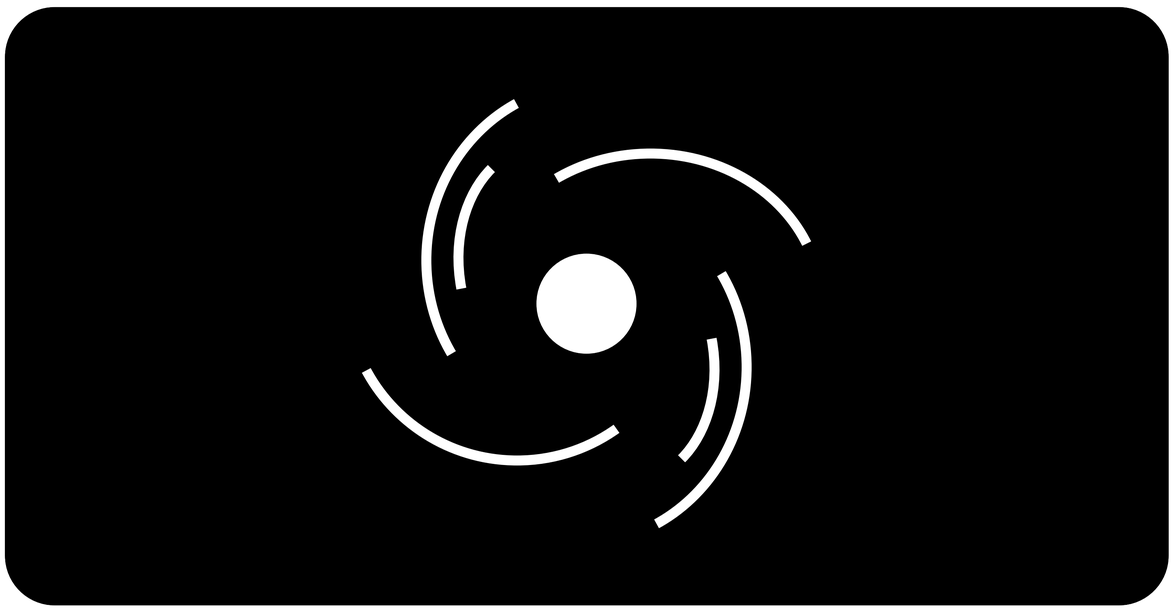
Advanced hardware and software

1. An interconnected alarm of all fire detectors at the facility in 20 seconds
2. Built-in siren with a volume of 85 dB at a distance of 3 meters
3. Ability to operate autonomously without an Ajax hub
4. 10 years of operation with sealed batteries, and up to 7 years — with replaceable batteries

Easy to install and configure

1. SmartBracket mounting panel with the ability to align the detector after installation
2. Remote control and configuring via Ajax apps
3. Pairing with the Ajax hub via QR code

Operating principle



Smoke detection

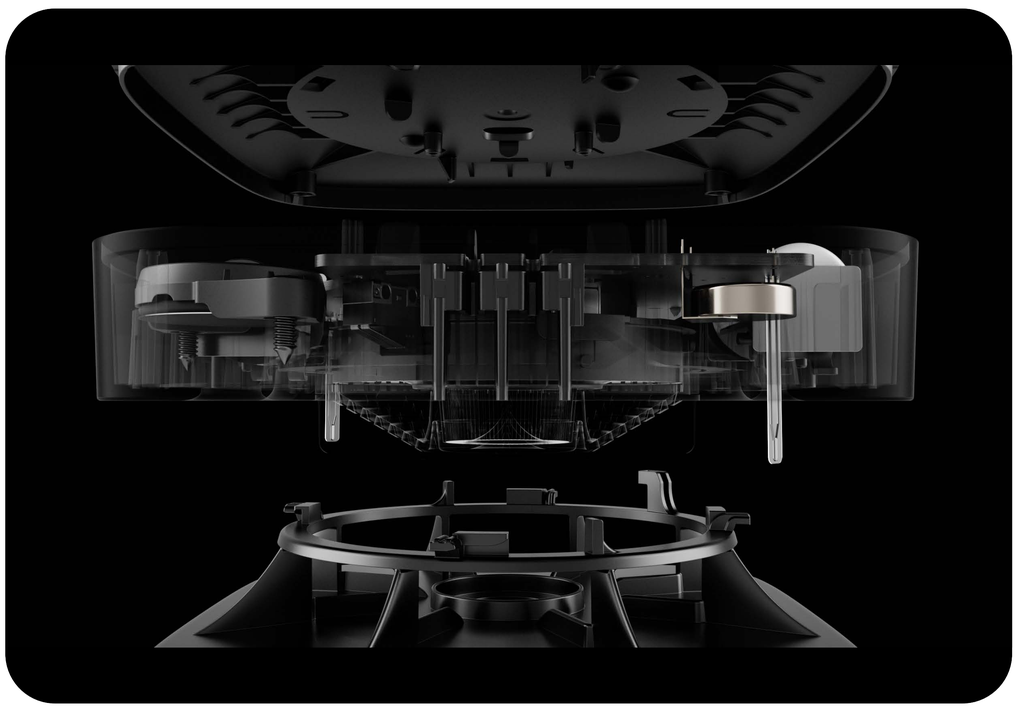
FireProtect 2 detects smoke and does not react to water vapour thanks to a dual-spectrum optical sensor with blue and infrared LEDs. LEDs emit light with different wavelengths, which allows the detector to determine the size of the volatile particles and react only to smoke.

The detector's smoke chamber is protected from dust, dirt, and insects. Even if dust enters and settles in the smoke chamber, it does not threaten or impair the detection. The optical system is designed so that non-volatile particles or insects cannot be in two beams simultaneously and cause a false alarm.

Detection of a rapid temperature rise

Two built-in thermistors are responsible for the reaction to temperature rise. Thermistors are located outside the detector for faster threat detection.

If the room temperature exceeds +64°C or increases at more than 10°C within a minute, the detector recognizes this as a rapid temperature rise and raises the alarm.



Interconnected Fire Detectors Alarms

The detector supports interconnected fire alarms. The feature activates built-in sirens of all Ajax fire detectors at the facility if at least one of them is triggered. In case of a fire, this allows alerting as many people as possible.

FireProtect 2 detectors have an improved interconnected fire alarm algorithm that activates all fire detectors' sirens within 20 seconds. The function is available only when detectors operate with the hub.

Operation without a hub

FireProtect 2 detectors can be used without pairing with an Ajax hub. In this case, the detector notifies fire alarms with a built-in siren and LED indication but does not send a notification to the user's smartphone, Ajax Translator, or PRO Desktop.

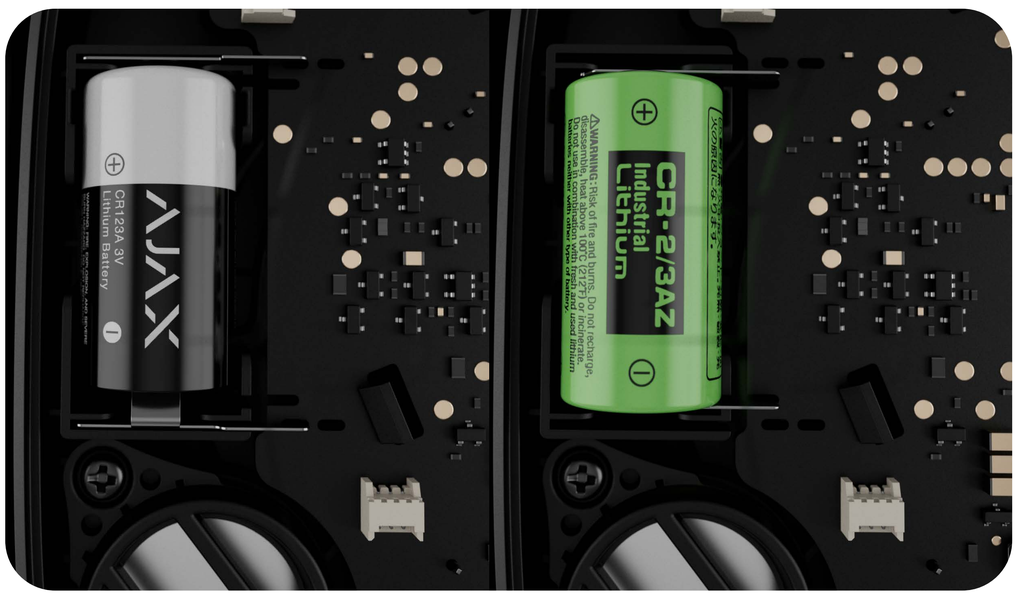
Manual and automatic testing

FireProtect 2 regularly checks the status of batteries and built-in sensors. If a malfunction is detected, the hub will notify users and the monitoring station instantly. And the detector will turn on the light and sound alert by the built-in siren and LEDs. All detector states can be checked at any time in Ajax apps.

The detector supports manual testing mode. It is activated by pressing the device's front panel. The front panel has a mechanical button, which can be pressed either manually or with a floor mop. During the test, the built-in siren and testing of sensors are run. This allows the installer to test the device at any time and to demonstrate to the customer the light and sound indication of the detector for various types of alarms.

Autonomous operation

FireProtect 2 (Heat/Smoke) is available in two versions: with replaceable or sealed batteries. Detectors with replaceable batteries operate for up to 7 years with pre-installed CR123A batteries. After discharge, the batteries can be replaced with new ones. The model with sealed lithium batteries operates for at least 10 years. After the batteries are discharged, the detector should be replaced with a new one.

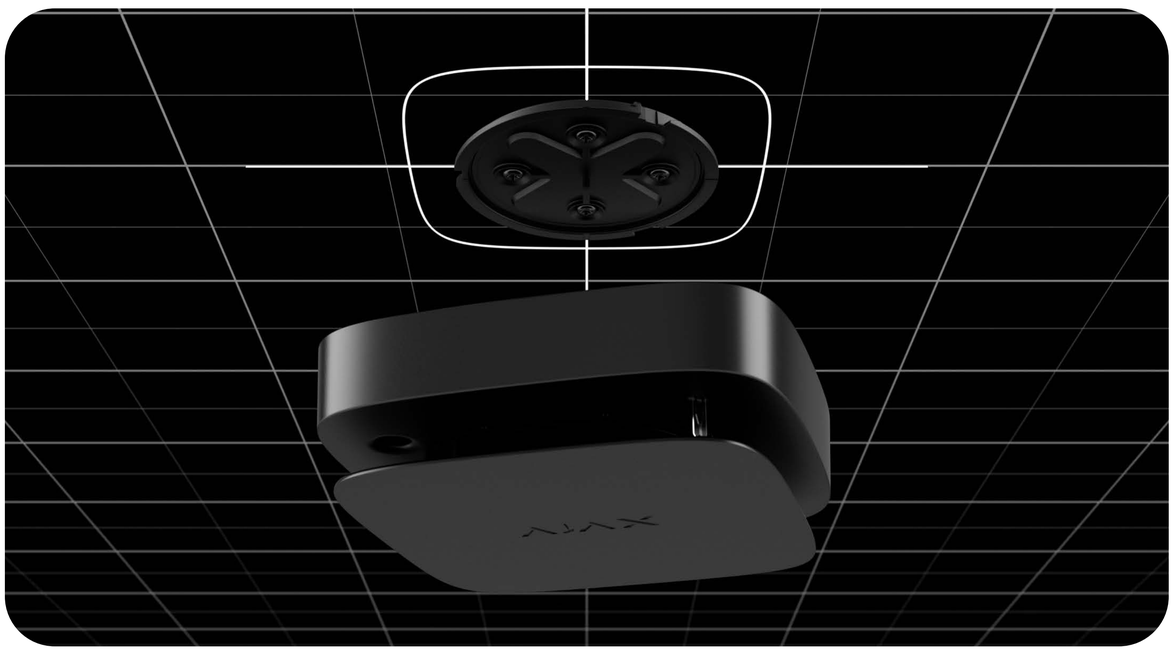


Jeweller
communication technology

Jeweller is a radio protocol for fast and reliable two-way communication between hubs and connected devices. The protocol provides a wireless radio communication range with FireProtect 2 up to 1,700 meters. This communication range allows you to install detectors even on large-scale objects.

Jeweller is responsible for transmitting alarms and events. The radio protocol also provides an interconnected fire detectors alarm activation within 20 seconds in a system with any number of FireProtect 2. Thanks to Jeweller, users and the monitoring station can always see the current status of detectors in Ajax apps.

Quick pairing and installation



There is no need to disassemble the detector during installation. With an improved SmartBracket panel, an installer can effortlessly fix the detector on ceilings and level it at 90° angles after mounting. The Ajax apps help quickly make the device a part of the system. And it can always be reconfigured remotely without site visits.

Technical specifications

Communication with the hub or range extender	**Jeweller communication technology** **Frequency bands** 866.0–866.5 MHz 868.0–868.6 MHz 868.7–869.2 MHz 905.0–926.5 MHz 915.85–926.5 MHz 921.0–922.0 MHz Depends on the region of sale. **Maximum effective radiated power (ERP)** Up to 20 mW **Communication range** up to 1,700 m In an open space.
Compliance with regulations	EN 14604:2005/AC:2008 EN 50291-1:2018
Compatibility	**Hubs** Hub Plus Hub 2 (2G) Hub 2 (4G) Hub 2 Plus Hub Hybrid (2G) Hub Hybrid (4G) **Range extenders** ReX ReX 2
Smoke detection	**Sensitive element** dual-spectrum optical sensor **False alarms prevention** • optical sensor ignores cooking fumes and water steam • patented smoke chamber is dustproof and impenetrable for insects • HazeFlow 2 smoke detection algorithm to filter false alarms

Heat detection	**Sensitive element** two thermistors According to the requirements for heat A1R-class detectors of EN 54-5 tandard. **Heat alarm** • 10°C increase in temperature within 1 minute • exceeding +64°C
Additional features	**Built-in siren** volume of 85 dB at a distance of 3 meters **Interconnected fire alarm** All fire detectors in the system turn on built-in sirens if at least one of the detectors registers an alarm. The interconnected alarm is activated after no more than 20 seconds. **LED indication** green is a power indication Lights up once every minute. yellow is an indication of malfunctions Lights up when malfunctions are detected. For example, in the case of discharged batteries or contamination of the smoke chamber. red is an indication of fire alarms Lights up when the detector detects a fire alarm. **Button on the front panel of the detector** In normal mode, when pressed, it starts the detector test. In the event of an alarm or malfunction, the pressing turns off the detector sound notification.

Anti-sabotage protection	**Tampering alarm** **Protection against spoofing** device authentication **Detection of communication failure** within 15 minutes The time to detect communication loss depends on the number of undelivered data packages setting (specified in the Jeweller or Jeweller/Fibra settings). The polling interval is fixed at 300 seconds.	Power supply	**RB version** 2 replaceable CR123A batteries Up to 7 years of battery life. **SB version** 2 sealed lithium batteries 10 years of battery life.
Enclosure and installation	**Dimensions** 124 × 124 × 45 mm **Weight** 272 g For RB version. 268.5 g For SB version. **Operating temperature range** from 0°C to +50°C **Operating humidity** up to 80% **Protection class** IP20 **Colours** Black White	Complete set	**RB version** FireProtect 2 RB (Heat/Smoke) Jeweller SmartBracket mounting panel Installation kit 2 × CR123A batteries (pre-installed) Quick start guide **SB version** FireProtect 2 SB (Heat/Smoke) Jeweller SmartBracket mounting panel Installation kit Quick start guide