

## Tech specs

BASELINE

# CombiProtect U Jeweller

Wireless PIR motion and glass break detector with a microphone



Device compatibility

Check

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## Communication

📶 Jeweller communication technology



Proprietary wireless communication technology to transmit commands, alarms, and events.

Key features:

- Two-way communication.
- Advanced sabotage protection.
- Block encryption featuring a dynamic key.
- Instant notifications.
- Remote control and configuration in Ajax apps.

[Learn more >](#)

## Frequency bands

868.0–868.6 MHz

## Maximum effective radiated power (ERP)

up to 20 mW

Automatic power control to reduce power consumption and radio interference.

## Radio signal modulation

GFSK

## Radio communication range

up to 1,200 m

Between the device and a hub (or a range extender) in an open space.

[Calculate radio communication range at the facility >](#)

## Encrypted communication

All stored and transmitted data is protected by block encryption featuring a dynamic key.

## Frequency hopping

To prevent radio interference and jamming.

[Learn more >](#)

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## Motion detection

### Sensitive element

1 × PIR sensor

### Motion detection distance

up to 12 m

When installed at a height of 2.4 m.

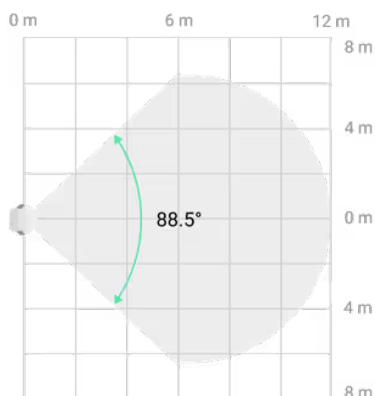
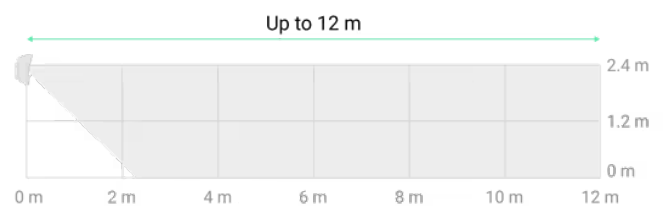
### Motion detection angle

horizontal: 88.5°

### Motion detection speed

from 0.3 to 2.0 m/s

The direction of the detector lens should be perpendicular to an alleged intrusion path into the facility.



## **Sensitivity**

3 levels

Adjusted by a PRO or a user with admin rights in Ajax apps.

## **Pet immunity**

weight: up to 20 kg

height: up to 50 cm

[Learn more >](#)

## **False alarm prevention**

SmartDetect

Software algorithm.

[Learn more >](#)

## **Temperature compensation**

Effective motion detection at temperatures from  $-10\text{ }^{\circ}\text{C}$  to  $+40\text{ }^{\circ}\text{C}$ .

[Learn more >](#)

## **Recommendations**

It is recommended to install the detector at a height of 2.4 m.

The device is designed for indoor use only.

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## Glass break detection

### Sensitive elements

electret microphone

### Glass break detection distance

from 0.3 up to 9 m

### Glass break detection angles

horizontal: 180°

vertical: N/A

### Sensitivity

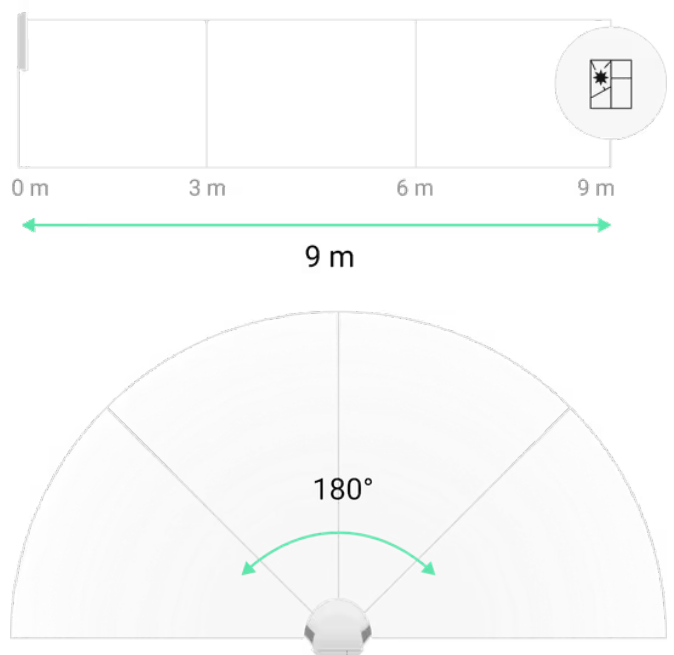
3 levels

Adjusted by PRO or user with admin rights in the Ajax app.

### False alarm prevention

DualTone

Two-factor glass break verification software algorithm: by low and high frequencies.



[Learn more >](#)

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## Glass break characteristics

### Min size of the glass

400 × 400 mm

Detection distance up to 9 m for all glass types when the High sensitivity level is selected.

### Type of glass and its thickness:

standard pane – 4 mm

insulated glass – 4 mm

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## Sabotage protection

### Tamper alarm

Notifications on attempts to detach the detector from the surface or remove it from the mounting panel.



[Learn more >](#)

### Holding screw

to secure the detector on SmartBracket

## Protection against spoofing

device authentication

## Communication loss detection

after 36 s

Detection time depends on the Jeweller/Fibra settings.

[Learn more >](#)

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## Power supply

### Battery

1 × CR123A

Pre-installed.

### Type

type C

### Calculated battery life

up to 5 years

### Operating voltage range

2.1–3.3 V<sup>==</sup>

### Nominal operating voltage

3 V<sub>≡</sub>

### Quiescent current consumption at nominal voltage

34  $\mu$ A

### Maximum current consumption at nominal voltage

58 mA

### Full battery capacity

1,600 mAh

### Low battery voltage

2.5 V<sub>≡</sub>

### Low battery recovery voltage

2.7 V<sub>≡</sub>

### End-of-life battery voltage

2.1 V<sub>≡</sub>

 CombiProtect U Jeweller

More 

### End-of-life battery capacity

300 mAh

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## Enclosure

### Dimensions

110 × 65 × 50 mm

### Weight

92 g

### Operating temperature range

from -10 °C to +40 °C

### Operating humidity

up to 75%

### Protection class

IP50



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## Colors

Black

White



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## Complete set

CombiProtect U Jeweller

SmartBracket mounting panel with holding screw

CR123A battery (pre-installed)

Installation kit

Quick start guide

## Certification and compliance with standards



CombiProtect U Jeweller



## Additional information

## Compliance with standards

[Learn more >](#)

## User manual

[Learn more >](#)

## Warranty

24 months

[Learn more >](#)

### Subscribe


Subscribe to our emails about secure life. No spam.

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### Request extra help

 +447451279411

 support@ajax.systems

 @AjaxSystemsSupport\_Bot

 Ask a question



Rating 4.8

4,500,000

people worldwide under Ajax protection

 Suggest a feature

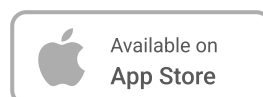


Products

Software

Intrusion protection  
Video surveillance  
Fire and life safety  
Comfort and automation  
All products  
Services  
System integrations  
Ajax Ready products  
Fibra wired protocol  
Ajax radio protocols

Ajax Security System  
Ajax PRO: Tool for Engineers  
Ajax Desktop  
Ajax PRO Desktop  
Ajax TV  
Ajax Translator PRO  
Ajax Cloud Signaling  
Ajax Media Player  
Scenarios



## Solutions

Customer stories  
Solutions by facility type  
Commercial fire detection and alarm system  
Wireless Grade 3 solution  
Video surveillance solution  
Integration with Yale smart locks  
Upgrades and retrofits  
Why Ajax  
How it works

## Support

Manuals and articles  
Compliance with standards

## Tools

Ajax kit configurator  
Ajax device compatibility  
CMS software compatibility  
Ajax Services availability  
Video storage calculator  
Video device calculator  
Battery life calculator  
Radio communication range calculator  
Switches and outlets configurator  
Fibra power supply calculator  
All web tools

## Monitoring solutions and integrations

Intrusion alarm monitoring  
Video monitoring and visual alarm verification  
Audio alarm verification

## Company

Blog

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