

Tech specs

BASELINE

MotionProtect Jeweller

Wireless IR motion detector



Device compatibility

Check



Communication

MotionProtect Jeweller

[More](#) 

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

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 sales region.

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 1,700 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 are protected by block encryption featuring a dynamic key.

Frequency hopping

To prevent radio interference and jamming.

Learn more >

Detection

Sensitive element

PIR sensor

Motion detection distance

up to 12 m

When installed at the height of 2.4 m.

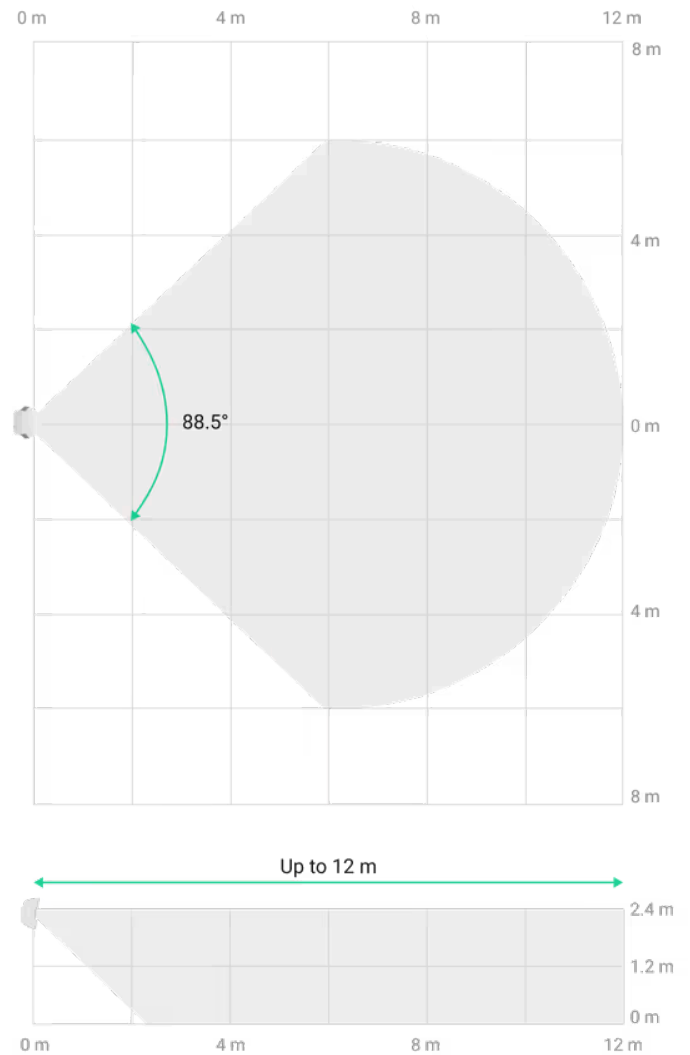
Motion detection angle

horizontal: 88.5°

Motion detection speed

from 0.3 to 2 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 the Ajax app.

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°C to $+40^{\circ}\text{C}$.

[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.

Sabotage protection

Tamper alarm

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

[Learn more](#) >

Protection against spoofing

device authentication

Communication loss detection

after 36 s

Detection time depends on the Jeweller or Jeweller/Fibra settings.

[Learn more](#) >

Power supply

Battery

1 × CR123A

Pre-installed.

Type

Type C.

Detector's operating voltage range

2.1–3.3 V_{DC}

Detector's nominal operating voltage

3 V_{DC}

Quiescent detector's current consumption at nominal voltage

34.5 µA

Maximum detector's current consumption at nominal voltage

61 mA

Full battery capacity

1,600 mAh

Low battery voltage

2.5 V_{DC}

Low battery recovery voltage

2.7 V_{DC}

End-of-life battery voltage

2.1 V_{DC}

The device is switched off.

End-of-life battery capacity

300 mAh

Calculated battery life

up to 5 years

Learn more >

Manufacturer

Huiderui

Enclosure

Dimensions

110 × 65 × 50 mm

Weight

86 g

Operating temperature range

from -10 °C to +40 °C

Operating humidity

up to 75%



Protection class

IP50



Colors

Black



White



Complete set

MotionProtect Jeweller

SmartBracket mounting panel

CR123A battery (pre-installed)

Installation kit

Quick start guide

Certification and compliance with standards



MotionProtect 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.

Subscribe

Request extra help

-  support@ajax.systems
-  @AjaxSystemsSupport_Bot
-  Send a request





Rating 4.8

4,000,000

people worldwide under Ajax protection

 Suggest a feature


- 
- 
- 
- 
- 


Products

- 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

Software

- For users
- Ajax PRO: Tool for Engineers
- Ajax Desktop
- Ajax PRO Desktop
- Ajax Translator PRO
- Ajax Cloud Signaling
- Scenarios

 Available on
App Store

 Available on
Google Play

Solutions

Support

[Customer stories](#)

[Solutions by facility type](#)

[Commercial fire detection and alarm system](#)

[Wireless Grade 3 solution](#)

[Upgrades and retrofits](#)

[How it works](#)

[Manuals and articles](#)

[Compliance with standards](#)

Tools

[Ajax device compatibility](#)

[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](#)

[About us](#)

[Press page](#)

[Events](#)

[Career](#)

[Ajax Next](#)

[Students at CES 2026](#)


[Reviews and feedback](#)

For partners

[For partners](#)

[Ajax Academy](#)

[Partner Portal](#)

 [México](#) [Privacy policy](#) [Report a vulnerability](#) [GDPR White Paper](#) [NDAA Statement](#) [Cookie policy](#) [Anti-Spam Policy](#)
[End user agreement](#) [Warranty](#)

© 2025 AJAX SYSTEMS CH. All rights reserved