

Tech specs

AJAX SUPERIOR

Superior Hub Hybrid (2G)

Previously: Hub Hybrid (2G)

Hybrid control panel supporting photo verification. Works with Fibra and Jeweller devices.
Connectable via Ethernet and two SIM cards (2G)



Devices compatibility

Check >

Capacity

Ajax devices

up to 100

- Wired and wireless devices in any proportion.
- 5 range extenders max.
- 10 sirens max.
- 50 wired keypads with a built-in buzzer max (with [OS Malevich 2.30](#) and later versions).

More about devices >

Users

up to 50

- Any number of admin users within the limit.
- PRO accounts for installers and monitoring companies.
- Access management for regular users.

Automation scenarios

up to 32

- Alarm reactions.
- Scheduled actions.
- Security mode changing reactions.
- Temperature changing reactions.
- Humidity changing reactions.
- Reactions to changes in CO₂ concentration.
- Reactions to pressing the Button.

Learn more >

Security groups

up to 9

[Learn more](#) >

Rooms

up to 50

[Learn more](#) >

Event log

up to 1000 events

Events are saved on the non-volatile onboard flash memory.

Wired communication

◆ Fibra communication technology

Proprietary wired communication technology. Fibra combines the reliability of wires with the freedom of radio connection.

It features:

- Two-way communication.
- Advanced anti-sabotage.
- Instant notifications.
- Remote configuration via the Ajax apps.

Learn more >

Compatible wire

4-core cable

Bus connection.

Input

8 Fibra lines

Compatible with Fibra devices only.

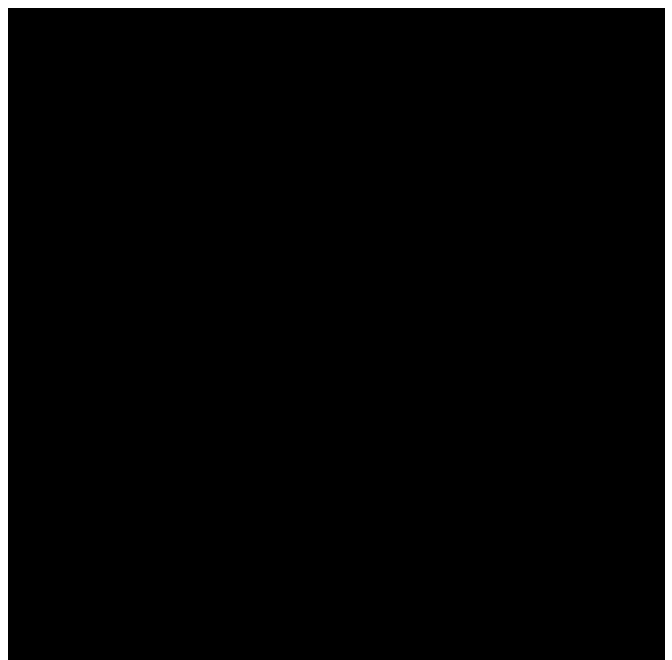
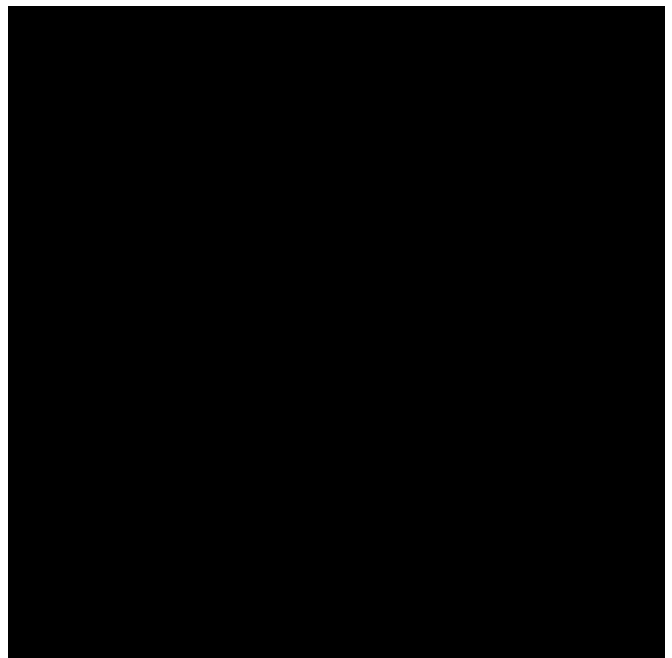
Fibra line length

up to 2,000 m

When using the U/UTP cat.5 twisted pair.

Calculate the line length at the facility >

Power supply of devices



up to 14.4 W

For all connected wired devices.

Calculate the power supply of devices >

Output voltage range

19–24 V_{DC}

Topologies

- Star
- Ring

In the line breakage event, the ring splits into two working segments, the devices continue to operate, and the system notifies a security company and users about the incident.

Learn more >

Devices polling interval

from 12 to 300 s

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

Encrypted communication

Wireless communication

Jeweller communication technology

Proprietary wireless communication technology to transmit alarms and events.

It features:

- Two-way communication.
- Advanced anti-sabotage.
- Block encryption featuring a dynamic key.
- Instant notifications.
- Remote configuration via the 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 region of sales.

Maximum effective radiated power (ERP)

up to 20 mW

Featured automatic power control to reduce power consumption and noise interference.

Radio signal modulation

GFSK

Radio signal range

up to 2,000 m

Between the hub and connected devices (in an open space). Maximum range depends on the connected device.

Calculate radio signal range at the facility >

Polling interval

from 12 to 300 s

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

Encrypted communication

All the data stored and transmitted are protected by block encryption with a dynamic key.

Radio frequency hopping

Learn more >

Wings communication technology

Proprietary wireless communication technology to transmit photo verifications.

It features:

- Two-way communication.
- Block encryption featuring a dynamic key.
- Advanced anti-sabotage.
- Package re-uploading in case of transmission errors.
- Photo delivery check.

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 region of sales.

Radio signal range

up to 1,700 m

Between the hub and connected devices (in an open space). Maximum range depends on the connected device.

Calculate radio signal range at the facility >

Radio frequency hopping

Radio communication uses frequency hopping to prevent interception and jamming.

Learn more >

Recommendations

100–240 V~ power supply. For indoor use only.

Communication channels

Ethernet

1 × 8P8C socket

Up to 100 Mbps.

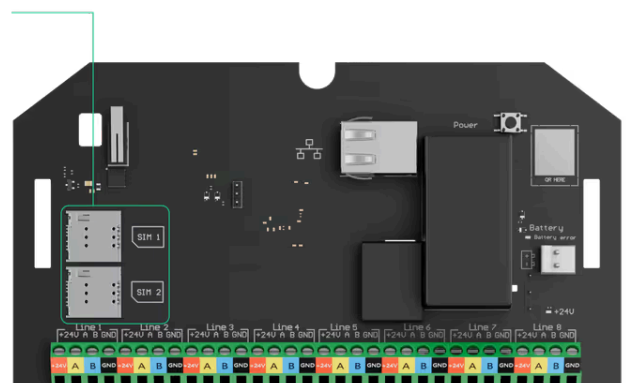
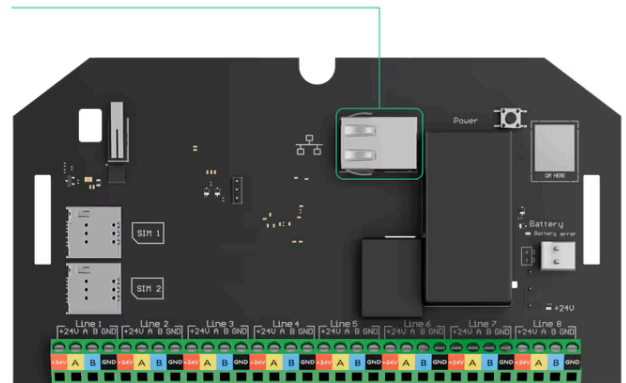
Cellular

2 × micro-SIM slot

Cellular bands

2G

(GSM900/DCS1800 (B3/B8))



Automatic switching between communication channels

- Switching between SIMs — up to 4 minutes.
- Switching between Ethernet and SIM — instantly.

Communication channels prioritization

1. Ethernet
2. Cellular connection

Communication channels work in parallel to increase system reliability. Most of the data is transmitted via Ethernet.

Alarm Transmission System Categories

SP2, SP5, DP3

Control panel operation method

Pass-through

Signaling security

S2

Substitution security.

Information security

I2

Notifications

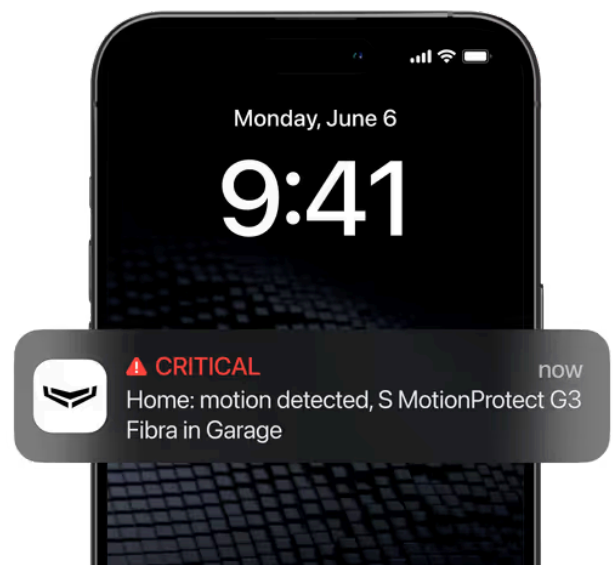
Supported notification types

- Push
- SMS
- Calls

[Learn more](#) >

Event types

- Alarms
- Malfunctions
- Events



- Security mode changing

The notification types are configured individually for each user. Notifications could be customized for A–F schemes according to EN 50131 requirements.

Photo verification

Photo verification types

- Photo by alarm
- Photo by scenario
- Photo on demand
- Photo by schedule

The **Photo by Schedule** feature is available for hubs with firmware version OS Malevich 2.19 or higher.

More about photo by scenario >

More about photo on demand >

More about photo by schedule >

Photo delivery time

up to 9 s

By default.

Learn more >

Photo resolution

up to 640 × 480 pixels

Depends on the detector.

Number of photos in a series:

from 1 to 5 pictures

Monitoring

Supported protocols

- SurGard (Contact ID)
- SIA (DC-09)
- Other proprietary protocols

[Learn more >](#)

Event types

- System alarms and events
- Photo verifications
- Panic button coordinates

[CMS software with photo verification support >](#)

Power supply

Main power supply type

Type A.

Device operating AC voltage range

100–240 V~, 50/60 Hz

From the main power supply. Up to 10 W of mains power consumption.

Device operating DC voltage range

10.5–15 V==

From the backup battery (not included). Hub has space in the enclosure and rails for installing batteries with a capacity of 4, 7, or 9 Ah.

Autonomous operation

up to 60 hours

Superior Hub Hybrid with a 7 Ah backup battery can power a system of 30 wired devices for 60 hours. Wireless devices operate on batteries and do not require additional power supply.

Learn more >

The **Battery Power Saver** feature allows extending the backup battery life.

Learn more >

Low battery voltage

11.7 V==

Low battery recovery voltage

12.9 V==

End of life battery voltage

11 V_{DC}

Superior Hub Hybrid is switched off.

Maximum output peak-to-peak ripple battery voltage

220 mV_{DC}

Minimum backup battery energy level in the charged state

100 %

Current consumption

Maximum rated output

0.53 A

Maximum at nominal voltage

105 mA

Quiescent at nominal voltage

95 mA

Average*

up to 90 mA

When GSM and Ethernet are enabled.

up to 50 mA

When Ethernet is disabled.

* From the backup battery after the loss of the main power supply.

Casing

Dimensions

197 × 240 × 100 mm

Weight of the white device

837 g

Weight of the black device

765 g

Operating temperature range

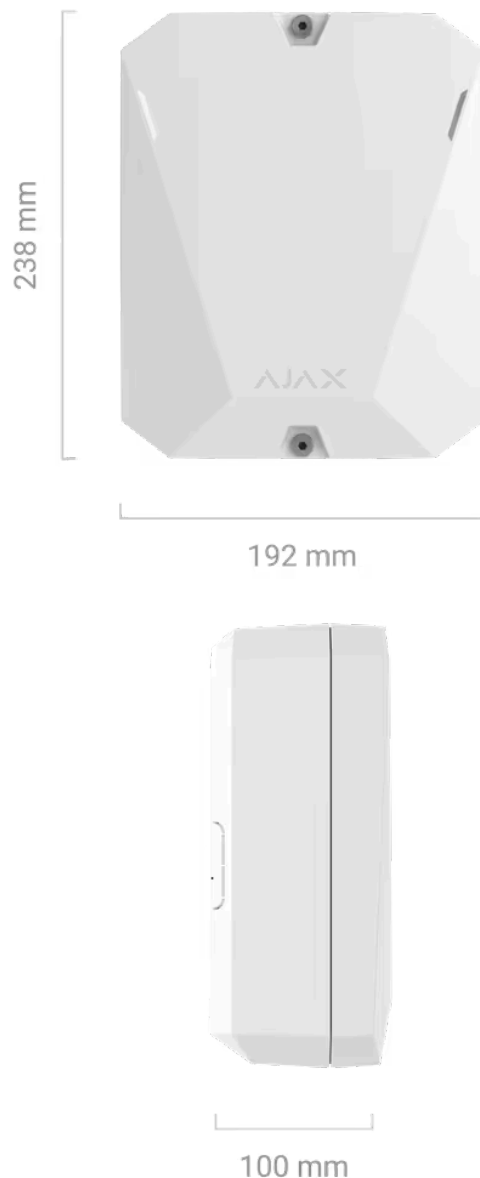
from -10 °C to +40 °C

Operating humidity

up to 75%

Protection class

IP40, IK06



Colors

Black



White



Complete set

Superior Hub Hybrid (2G)

Power cable

Screw terminal block Adapter (only for
INCERT compliance)

Battery connection cable

Ethernet cable

Casing

Installation kit

Eight 120 Ω termination resistors

Quick start guide

Certification and compliance with standards



Superior Hub Hybrid (2G)



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

+447451279411

support@ajax.systems

@AjaxSystemsSupport_Bot

 Ask a question



Rating 4.8

4,500,000

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

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



Available on
App Store



Available on
Google Play

Solutions

Customer stories

Solutions by facility type

Commercial fire detection and alarm system

Wireless Grade 3 solution

Wired 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

About us

Press page

Events

Career

Ajax Next

Ajax PRO channel

Reviews and feedback

For partners

For partners

Ajax Academy

Partner Portal

Ajax PRO channel



United Kingdom

Privacy policy

Report a vulnerability

GDPR White Paper

NDAA Statement

Cookie policy

Anti-Spam Policy

Ajax Services T&C

End user agreement

Warranty

© 2026 AJAX SYSTEMS CH. All rights reserved