

## Tech specs

**SUPERIOR**

# Superior Hub Hybrid (4G)

Previously: Hub Hybrid (4G)

Hybrid control panel supporting photo verification. Works with Fibra and Jeweller devices.  
Connectable via Ethernet and two SIM cards (2G/3G/LTE)



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## 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** >

### Cameras or DVRs

up to 25

- RTSP support.
- Seamless integration with the Dahua, Hikvision, Safire, EZVIZ, Uniview IP cameras and DVRs.

**Learn more** >

### 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 CO<sub>2</sub> 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.

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## 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.

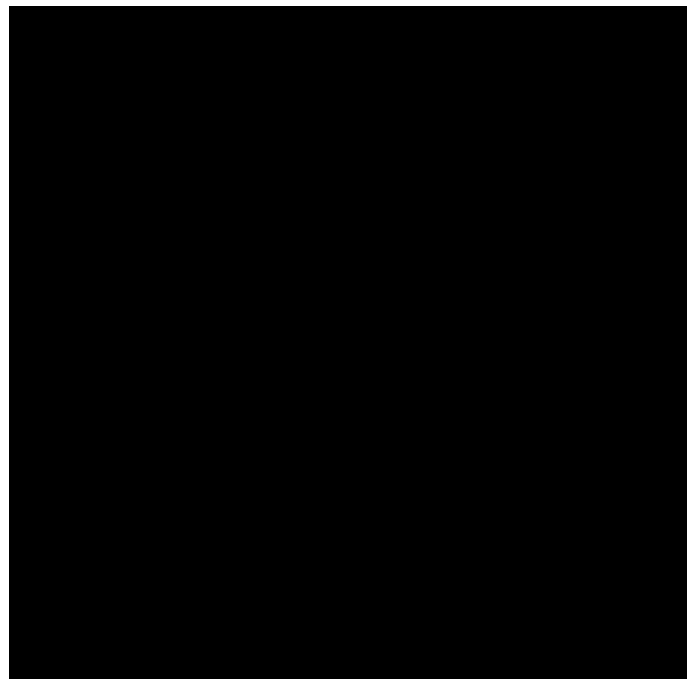
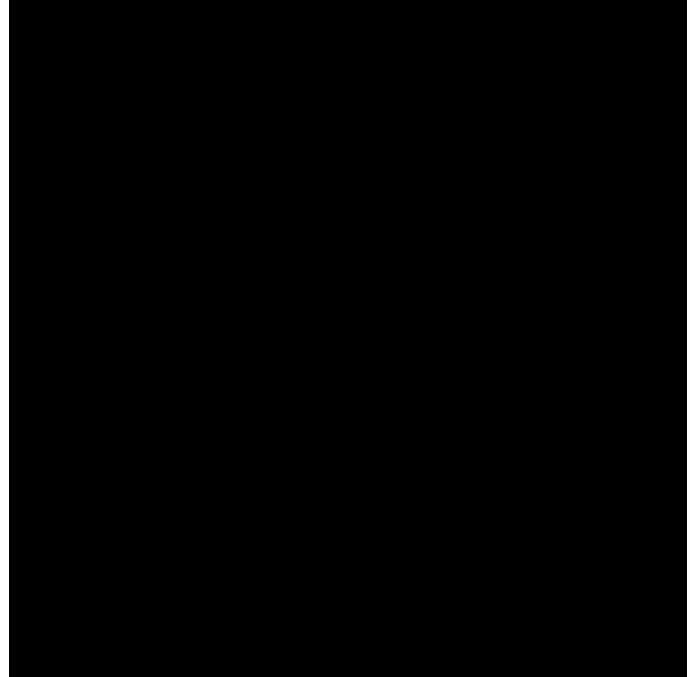
### Input

8 bus lines

Compatible with Fibra devices only.

### Bus 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

23–25.1 V<sub>DC</sub>

## 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

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## 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

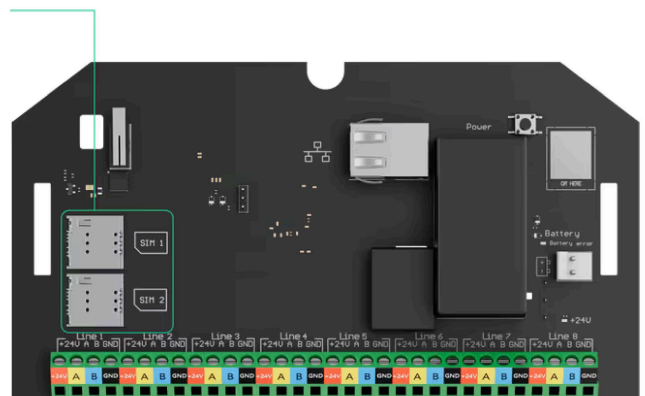
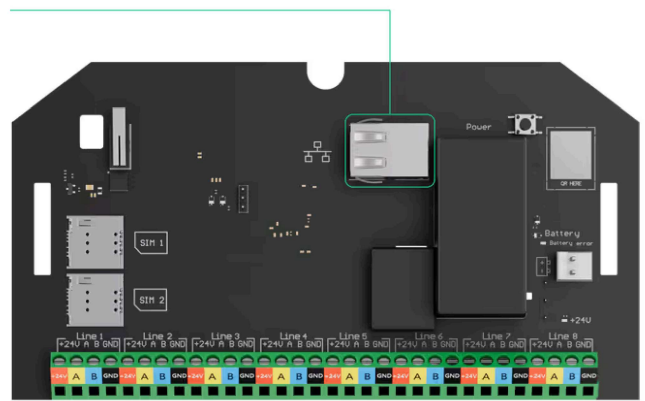
### Cellular bands

2G

(GSM900/DCS1800 (B3/B8))

3G

(WCDMA 850/900/2100 (B1/B5/B8))



## 4G/LTE

(FDD B1/B3/B5/B7/B8/B20)

### Automatic switching between communication channels

- Switching between SIMs – up to 4 minutes.
- Switching between 4G, 3G, and 2G networks of one SIM – instantly.
- 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

## Encryption algorithm

AES 128

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## 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.

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## 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

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## 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 >](#)

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## 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<sub>DC</sub>

## End of life battery voltage

11 V<sub>DC</sub>

Superior Hub Hybrid is switched off.

## Maximum output peak-to-peak ripple battery voltage

220 mV<sub>DC</sub>

## Minimum backup battery energy level in the charged state

100 %

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## Current consumption

### Maximum rated output

0.53 A

### Maximum at nominal voltage

200 mA

### Quiescent at nominal voltage

130 mA

## Average\*

up to 93 mA

When GSM and Ethernet are enabled.

up to 72 mA

When Ethernet is disabled.

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

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## Casing

### Dimensions

197 × 240 × 100 mm

### Weight of the white device

837 g

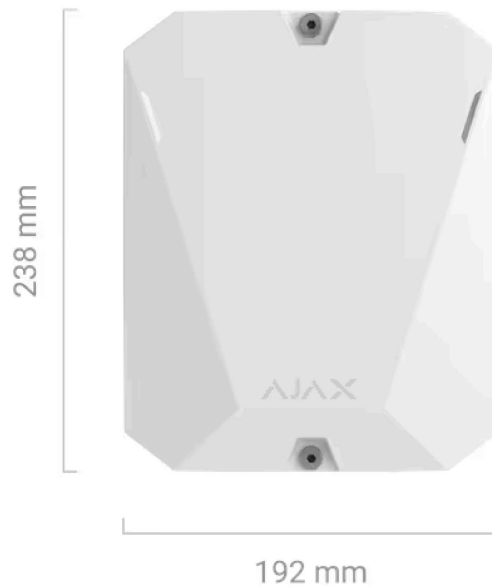
### Weight of the black device

765 g

### Operating temperature range

from -10°C to +40°C

### Operating humidity



up to 75%

## Protection class

IP30, IK06



100 mm

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## Colors

Black



White



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## Complete set

Superior Hub Hybrid (4G)

Power cable

Screw terminal block Adapter (only for INCERT compliance)

Battery connection cable

Ethernet cable

Casing

Installation kit

Eight 120  $\Omega$  termination resistors

Quick start guide

## Certification and compliance with standards



Superior Hub Hybrid (4G)



## 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](#)

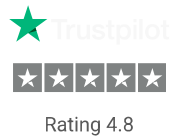
### Request extra help

+447451279411

support@ajax.systems

@AjaxSystemsSupport\_Bot

Send a request



4,000,000

people worldwide under Ajax protection

Suggest a feature



### Products

Intrusion protection

Video surveillance

Fire and life safety

Comfort and automation

### Software

For users

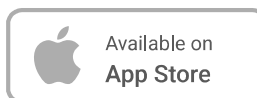
Ajax PRO: Tool for Engineers

Ajax Desktop

Ajax PRO Desktop

- All products
- Services
- System integrations
- Ajax Ready products
- Fibra wired protocol
- Ajax radio protocols

- Ajax Translator PRO
- Ajax Cloud Signaling
- Scenarios



## Solutions

- Customer stories
- Solutions by facility type
- Commercial fire detection and alarm system
- Wireless Grade 3 solution
- Upgrades and retrofits
- Why Ajax
- How it works

## Support

- Manuals and articles
- Compliance with standards

## Tools

- Ajax kit configurator
- 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

## For partners

- For partners
- Ajax Academy
- Partner Portal

[Students at CES 2026](#)

[Reviews and feedback](#)

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