

Hub Hybrid (4G) (without casing)

Hybrid control panel designed for installation in Case D. Works with Fibra and Jeweller devices. Connectable via Ethernet and two SIM cards (2G/3G/LTE).

Capacity	Ajax devices up to 100 Specifically, up to 10 sirens or keypads with a built-in siren and up to 5 range extenders. Ajax NVRs up to 36 Ajax cameras up to 224 via Ajax NVRs and up to 492 standalone Third-party IP cameras up to 10 when using RTSP via SDK up to 224 when using ONVIF via Ajax NVRs Users up to 50 - Any number of admin users within the hub limit. - PRO accounts for installers. - PRO accounts for installation and monitoring companies. - Access management for users. Automation scenarios up to 32 - By alarm. - By schedule. - By arming/disarming. - By temperature, humidity, CO₂ concentration. - By pressing Button. - By touching LightSwitch. Security groups up to 9 Rooms up to 50 Event log up to 1,000 events Events are saved on the non-volatile onboard flash memory.
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Wired communication	Fibra communication technology Proprietary wired communication technology to transmit commands, alarms, and events. Key features: • Two-way communication. • Advanced sabotage protection. • Instant notifications. • Remote control and configuration via Ajax apps. Line connection 4-core cable Input 8 Fibra lines Compatible with Fibra devices only. Fibra line length up to 2,000 m up to 6,550 ft When the U/UTP cat.5 twisted pair cable is used. Power supply of devices up to 14.4 W For all connected wired devices. Output voltage range 23–25.1 V_~ Maximum rated output 0.53 A Topologies • Beam (Radial wiring) • Ring • Tree 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. Devices polling interval from 12 to 300 s Adjusted by PRO or user with admin rights in the Ajax apps. Encrypted communication All stored and transmitted data are protected by block encryption featuring a dynamic key.
Wireless communication	Jeweller communication technology Proprietary wireless communication technology to transmit commands, alarms, and events. Key features: • Two-way communication.

- Advanced anti-sabotage.
- Block encryption featuring a dynamic key.
- Instant notifications.
- Remote control and configuration in Ajax apps.

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 25 mW

Automatic power control to reduce power consumption and radio interference.

Radio signal modulation

GFSK

Radio communication range

up to 2,000 m

up to 6,550 ft

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

Polling interval

from 12 s to 300 s

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

Encrypted communication

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

Frequency hopping

To prevent radio interference and jamming.

Wings communication technology

Proprietary wireless communication technology to transmit large data packets.

Key features:

- Two-way communication.
- Advanced anti-sabotage.
- Block encryption featuring a dynamic key.
- Data packages reload in case of transmission errors.
- Photo delivery check.

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 25 mW Automatic power control to reduce power consumption and radio interference. Radio communication range up to 1,700 m up to 5,600 ft Between a hub and connected devices (in an open space). The maximum range depends on the connected device. Encrypted communication All stored and transmitted data are protected by block encryption featuring a dynamic key. Frequency hopping To prevent radio interference and jamming.
Recommendations	The device is powered by 100–240 V~ mains and designed for indoor use only. It could be installed in Case D, which is sold separately.
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. External antenna connector 4G (LTE) The system will notify of the damaged antenna. Ajax ExternalAntenna is sold separately. 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
Notifications	Notification types • Push notifications • SMS • Calls Event types • Alarms • Video alerts • Malfunctions • Security state change • System events • Non-security alerts • Automation devices • Smart lock events • Doorbell ringing Notification types are configured individually for each user. Notifications can 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

	Photo delivery time up to 9 s By default. 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 • SIA DC-09 (SIA-DCS) • SurGard (Contact ID) • ADEMCO 685 • Other proprietary protocols Event types • System alarms and events • Panic button coordinates • Photo verification
Sabotage protection	Tamper alarm The board has a connector for attaching the tamper board. It detects the opening of Case lid and notifies of attempts to detach Case with the hub installed from the surface. Protection against spoofing device authentication Frequency hopping The hub sends notifications to all users and the security company of jamming or losing connection with the devices. Jamming alert Hub Hybrid analyzes the channel's noise level and the quality of communication with added devices and sends an alert in 30 seconds.
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$\overline{=}$ Autonomous operation

	up to 60 hours 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. The Battery Power Saver feature allows extending the backup battery life. Low battery voltage 11.7 V$\approx$ Low battery recovery voltage 12.9 V$\approx$ End-of-life battery voltage 11 V$\approx$ Hub Hybrid is switched off. Maximum output peak-to-peak ripple battery voltage 220 mV$\approx$ Minimum backup battery energy level in the charged state 100%
Current consumption	Maximum at nominal voltage 240 mA Quiescent at nominal voltage* up to 102 mA When GSM and Ethernet are enabled. up to 61 mA When Ethernet is disabled. <i>* From the backup battery after the loss of the main power supply.</i>
Board	Dimensions 185 × 99 × 43 mm 7.28" × 3.90" × 1.69" Weight 184 g 6.49 oz Operating temperature range from -10 °C to +40 °C from 14 °F to 104 °F Operating humidity up to 75%

Complete set	Hub Hybrid (4G) (without casing) Power cable Screw terminal block adapter (for INCERT compliance only) Battery connection cable LED board LED board connection cable Ethernet cable Eight 120 Ω termination resistors Quick start guide
Warranty	24 months