Superior Hub Hybrid (2G)

Hybrid security system control panel

Capacity	**Ajax devices** up to 100 ◇ Wired and wireless devices in any proportion. ◇ 5 range extenders max. ◇ 10 sirens or keypads with a built-in siren max. **Cameras or DVRs** up to 25 ◇ RTSP support. ◇ Seamless integration with the Dahua, Hikvision, Safire, EZVIZ, Uniview IP cameras and DVRs. **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_2 concentration. ◇ Reactions to pressing the Button. **Security groups** up to 9 **Rooms** up to 50 **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. **Compatible wire** 4–core cable Bus connection. **Input** 8 Fibra lines Compatible with Fibra devices only. **Fibra line length** up to 2,000 m up to 6,500 ft When using the U/UTP cat.5 twisted pair. **Power supply of devices** up to 14.4 W For all connected wired devices. **Output voltage range** 19–24 V⎓ **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. **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.

	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 up to 6,500 ft Between the hub and connected devices (in an open space). Maximum range depends on the connected device. **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** **[icon] 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. **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 up to 5,550 ft Between the hub and connected devices (in an open space). Maximum range depends on the connected device. **Radio frequency hopping** Radio communication uses frequency hopping to prevent interception and jamming.
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 **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. **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** ◇ SurGard (Contact ID) ◇ SIA (DC-09) ◇ Other proprietary protocols **Event types** ◇ System alarms and events ◇ Photo verifications

	◇ Panic button coordinates
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. The **Battery Power Saver** feature allows extending the backup battery life. **Low battery voltage** 11.7 V⎓ **Low battery recovery voltage** 12.9 V⎓ **End of life battery voltage** 11 V⎓ Superior Hub Hybrid is switched off. **Maximum output peak-to-peak ripple battery voltage** 220 mV⎓ **Minimum backup battery energy level in the charged state** 100 %
Current consumption	**Maximum rated output** 0.6 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** 192 × 238 × 100 mm 7.56" × 9.37" × 3.94" **Weight of the white device** 837 g 29.52 oz **Weight of the black device** 765 g 26.98 oz **Operating temperature range** from −10 °C to +40 °C from 14 °F to 104 °F **Operating humidity** up to 75% **Protection class** IP40, IK06 IP30 tested by CNPP according to NFa2P.
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
Warranty	24 months