

# Hub Hybrid

Hybrid security system control panel with photo verification support.

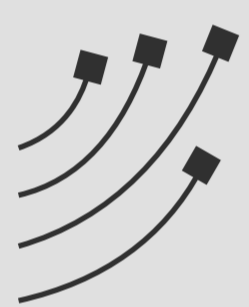


Find the detailed information on the device by QR code or the link:

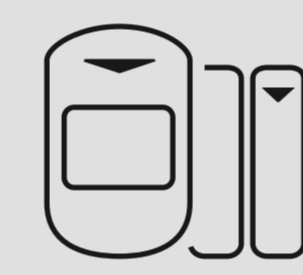
<https://ajax.systems/support/devices/hub-hybrid/>



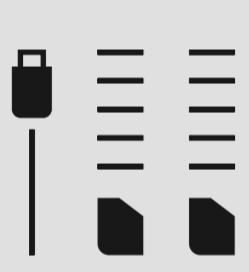
Hub Hybrid is a device of the Fibra product line. Only installers who received accreditation might have access to purchasing and setting up Fibra-line devices.



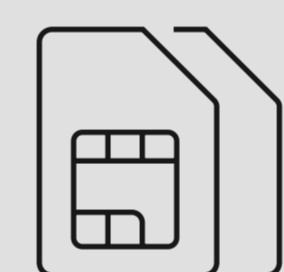
Has 8 independent bus lines



Supports connection of up to 100 devices



Featured with 3 communication channels: Ethernet and two SIM cards

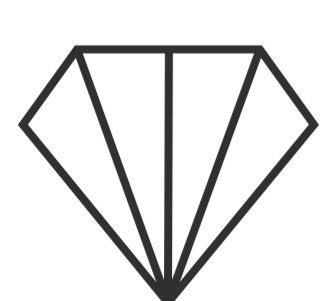


Available in two configurations: with 2G or 2G/3G/4G (LTE) cellular modem

## The synergy of wired and wireless technologies

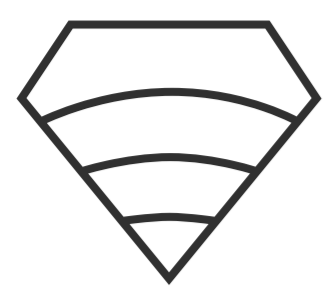
Hub Hybrid supports Jeweller wireless devices and Fibra wired devices. These technologies are combined to provide security for complex facilities regardless of size, or metal and concrete obstructions.

Hub Hybrid supports the connection of up to 100 devices – any share of them can be wired or wireless. Informative notifications, photo verifications, real-time security control in the app and automation scenarios enhance the protection of the facility.



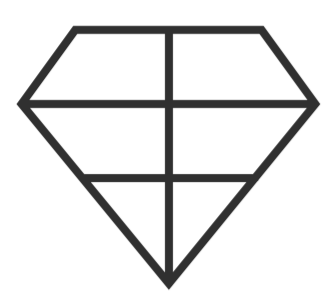
### Fibra

Fibra wired technology allows creating independent bus lines up to 2,000 m long with a 4-core cable. Up to 8 lines in a single system under Hub Hybrid control.



## Jeweller

Jeweller wireless communication range is 2,000 meters in line of sight. Up to 5 range extenders with a communication range of up to 1,800 meters can be connected to Hub Hybrid via radio or Ethernet<sup>1</sup>.



## Wings

Wings is a wireless technology to transmit visual data over vast distances. Built-in algorithms for package checking and uploading allow Wings to deliver the first photo in 9 seconds at a distance of up to 1,700 meters.

## Physical protection of the line against fracture [Future updates]

Future major OS Malevich updates will provide support of ring connection topology – hardware update won't be required. Hub Hybrid will support the connection of up to 4 rings. Even being cut, the ring splits into two working segments, devices continue to operate, and the system notifies a security company and users about the incident.



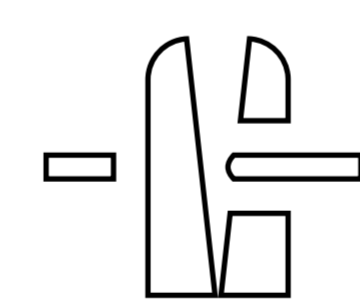
Ring connection



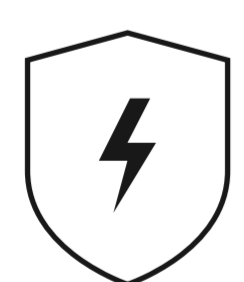
Two working segments



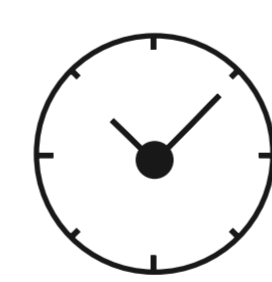
Up to 4 rings in the system



Instant ring cut detection



Short circuit detection



Polling of connected devices with the lowest possible frequency

## Always online

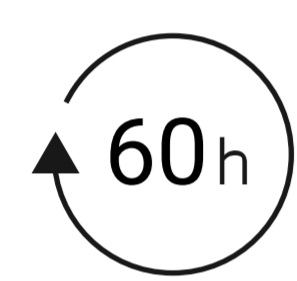
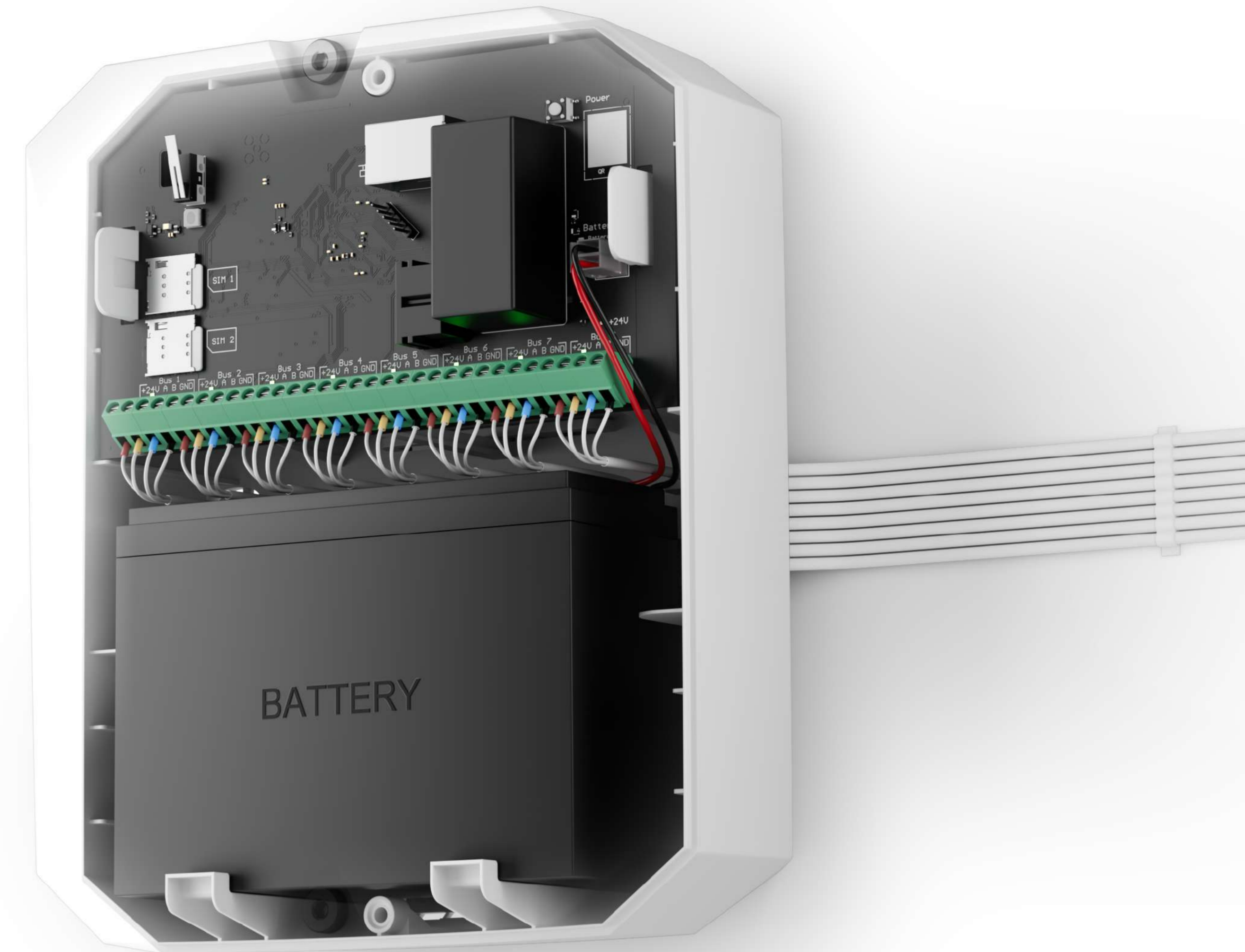
Hub Hybrid can be connected to three Internet providers at a time via Ethernet cable and 2G, 3G, and LTE SIM cards. Automatic switching between channels takes seconds. Hub Hybrid communicates with apps, security provider, and users through the Ajax Cloud server with availability of 99.995%. We use a proprietary binary protocol and automatic load balancing for uninterrupted processing of millions of data packages per minute. The server is physically located in several data centres.



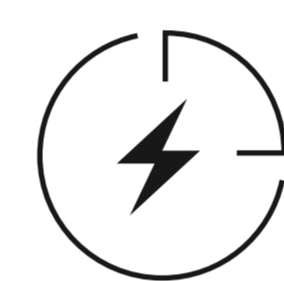
Hub Hybrid is available in two versions: Hub Hybrid (2G) and Hub Hybrid (4G) supporting 2G, 3G, and 4G/LTE networks.

## More than two days on a backup battery

Fibra devices consume less than 60  $\mu$ A, which is 100 times less than similar bus detectors from other manufacturers. It allows connecting more devices on a single line and provides longer wired connections. The low-power consumption also provides exceptional system autonomy in case of a blackout. Thirty Fibra devices connected to Hub Hybrid with 7 Ah backup battery will run for 60 hours. This is five times longer than Grade 2 requires and, in fact, meets the requirements for Grade 3.



Up to 60 h on backup accumulator with thirty connected Fibra devices



100 times less consumption of Fibra devices by comparison with other manufacturers bus detectors

## Convenience in the details

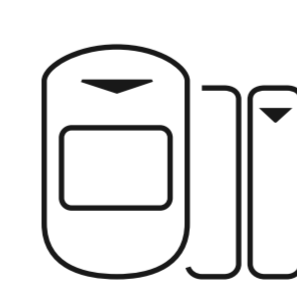
Detectors, keypads, or sirens can be connected to the same bus to ensure the security of a specific zone of a facility. Once devices are placed, an installer opens the Ajax PRO app and launches automatic line scanning. It shows all devices connected to the hub, allowing to set names, security groups and virtual rooms. There are two ways to determine which device is in front of you: switching on the LED and triggering.

After installing the system, an engineer runs the System power test in the PRO app. It simulates the maximum possible power consumption: detectors give alarms, keypads are activated, sirens are turned on. If the system passes the test, it will have sufficient power in any case.

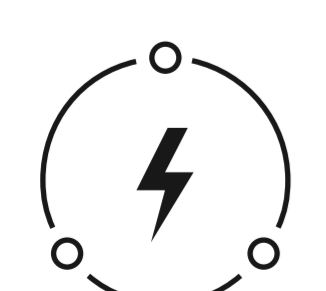
A monitoring station engineer does not need to configure zones manually. PRO Desktop monitoring software automatically synchronizes all information about the hub devices.



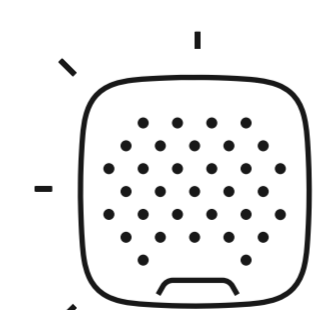
Configuring via a smartphone or desktop app



Line scanning functionality






Real-time system power test



Device identification via LED indication or by alarm

# Technical specifications

Compliance with standards	EN 50131 (Grade 2) PD 6662:2017	CMS connectivity	SurGard (Contact ID) SIA (DC-09) Other proprietary protocols
Connected devices	up to 100 wired/wireless devices  including up to 5 range extenders and up to 10 sirens	Features	50 users 32 automation scenarios 25 cameras or DVRs 9 security groups 50 rooms
Communication channels with Ajax devices	<p> <b>Fibra</b> communication technology</p> <p>Communication range up to 2,000 m with U/UTP cat.5 4x2x0,51 cable</p> <p> <b>Jeweller</b> communication technology</p> <p> <b>Wings</b> communication technology</p> <p><b>Frequency bands</b> 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 sale)</p>	External communication channels	<p><b>Ethernet</b> 8P8C slot. Up to 100 Mb/s.</p> <p><b>Cellular network</b> 2 slots for mini-SIMs</p> <p>Hub Hybrid (2G): 2G (GSM900/DCS1800 (B3/B8))</p> <p>Hub Hybrid (4G): 2G (GSM900/DCS1800 (B3/B8)) 3G (WCDMA 850/900/2100 (B1/B5/B8)) 4G/LTE (FDD B1/B3/B5/B7/ B8/B20)</p>

<p>Communication channels with Ajax devices</p>	<p><b>Maximum effective radiated power (ERP)</b> ≤ 25 mW</p> <p><b>Jeweller communication range</b> up to 2,000 m in a line of sight</p> <p><b>Wings communication range</b> up to 1,700 m in line of sight</p>	
<p>Power supply</p>	<p><b>Main power supply</b> 100–240 V, 50/60 Hz</p> <p><b>Backup power supply</b> 12V<sup>==</sup> accumulator with 4 or 7 Ah capacity</p> <p>Backup battery not included</p>	<p>Installation</p> <p><b>Operating temperature range</b> from –10°C to +40°C</p> <p><b>Operating humidity</b> up to 75%</p> <p><b>Ingress protection</b> IP50</p>
<p>Casing</p>	<p><b>Colour</b> white, black</p> <p><b>Dimensions</b> 196 × 238 × 100 mm</p> <p><b>Weight</b> TBC</p> <p><b>Tampering alarm</b> Two tampers to detect the lid opening and alert of detachment from a wall</p>	<p>Complete set</p> <p>Hub Hybrid (2G) or Hub Hybrid (4G) Power cable 12 V battery connection cable Ethernet cable Casing Installation kit Quick Start Guide</p>

<sup>1</sup> – ReX 2 is equipped with an Ethernet port, but the functionality will become available with future OS Malevich updates.