

# Hub Hybrid

Hybrid security system control panel supporting detectors with photo verification.



The detailed information on the device is available via QR code or at the link:

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



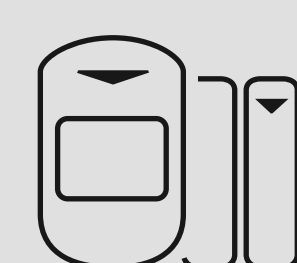
- 3 GRADE EN 50131
- PD 6662 2017
- INCERT
- SSF
- NIST AES-128 Approved

Hub Hybrid is the control panel of the Fibra product line. The Fibra devices can only be purchased, installed and administered by accredited Ajax Systems partners.

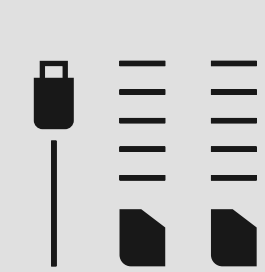
## Key features



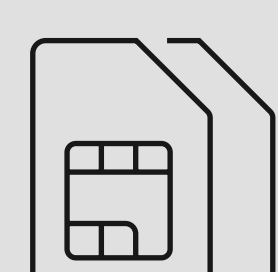
8 Fibra lines to connect wired devices



Up to 100 devices in the system



3 communication channels: Ethernet and two SIM cards



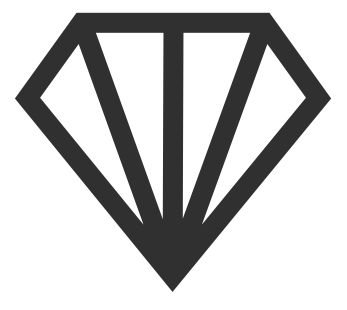
2 hub versions: with 2G or 2G/3G/4G (LTE) cellular modem

## The synergy of wired and wireless technologies

Hub Hybrid supports connecting the **Jeweller** wireless devices and the **Fibra** wired devices. These technologies are combined to provide security for large-scale facilities regardless of metal and concrete obstructions, the radio signal can't get through.

Hub Hybrid supports the connection of up to 100 devices – any share of them can be wired or wireless. And security control via the app, photo verification and automation scenarios make protection even more reliable and convenient.





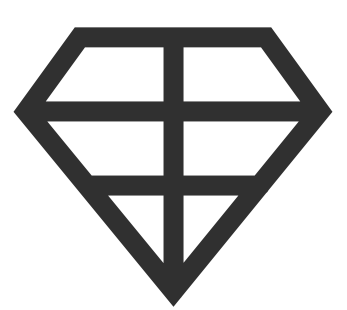
### Fibra

Wired communication technology with a range of **up to 2,000 m**. Hub Hybrid supports up to 8 Fibra lines. Fibra lines are generic: security detectors, detectors with photo verification, sirens, and keypads are connected to a 4-core cable.



### Jeweller

Wireless communication technology with a range of **up to 2,000 m**. To expand the radio coverage area, up to **5 range extenders** can be connected to Hub Hybrid, each with a range of up to 1,800 m. And with the **ability to connect them to a hub via Ethernet**, the system will protect a metal hangar, a warehouse complex or an office centre with underground parking.



### Wings

Wireless communication technology to transmit the photos at a distance of **up to 1700 m**. With the built-in algorithms for data package checking and uploading, Wings delivers the first photo from the scene **in 9 seconds**.

## Protecting the line against sabotage

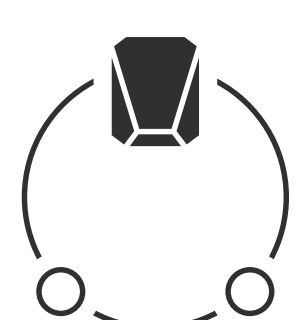
The following OS Malevich updates will provide support for the **Ring connection topology**, and no hardware upgrade will be required. Hub Hybrid will support up to 4 rings. Even being broken, the ring is divided into two stable operating segments, and the security company and users are immediately notified.



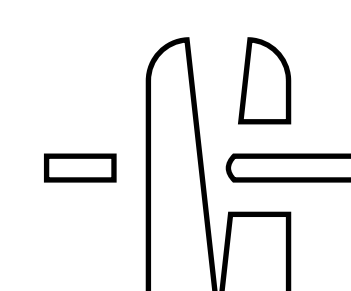
Ring connection method



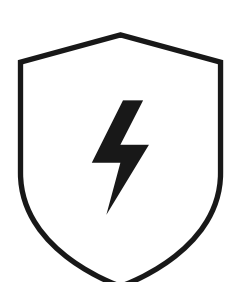
Two working lines



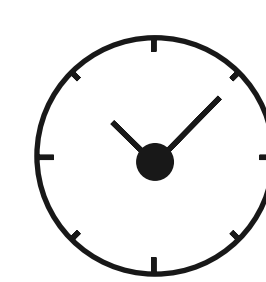
Up to 4 rings in the system



Instant detection of the ring break



Short circuit detection



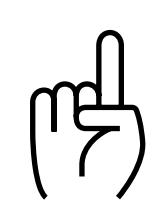
Adjustable polling interval



## Always online

Hub Hybrid connects to three Internet service providers via Ethernet and two SIM cards (2G/3G/LTE). Channels work in parallel, and automatic switching between them takes seconds.

Hub Hybrid is connected to the apps, security companies and users through the Ajax Cloud server with an availability of 99.995% in 2021. For more excellent reliability, the servers are located in several data centres. We use the proprietary binary protocol and automatic load balancing for the uninterrupted processing of millions of data packets and the stable operation of security systems.

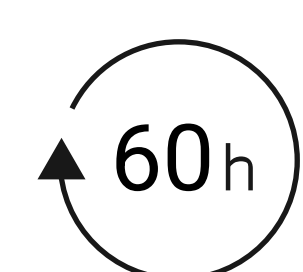
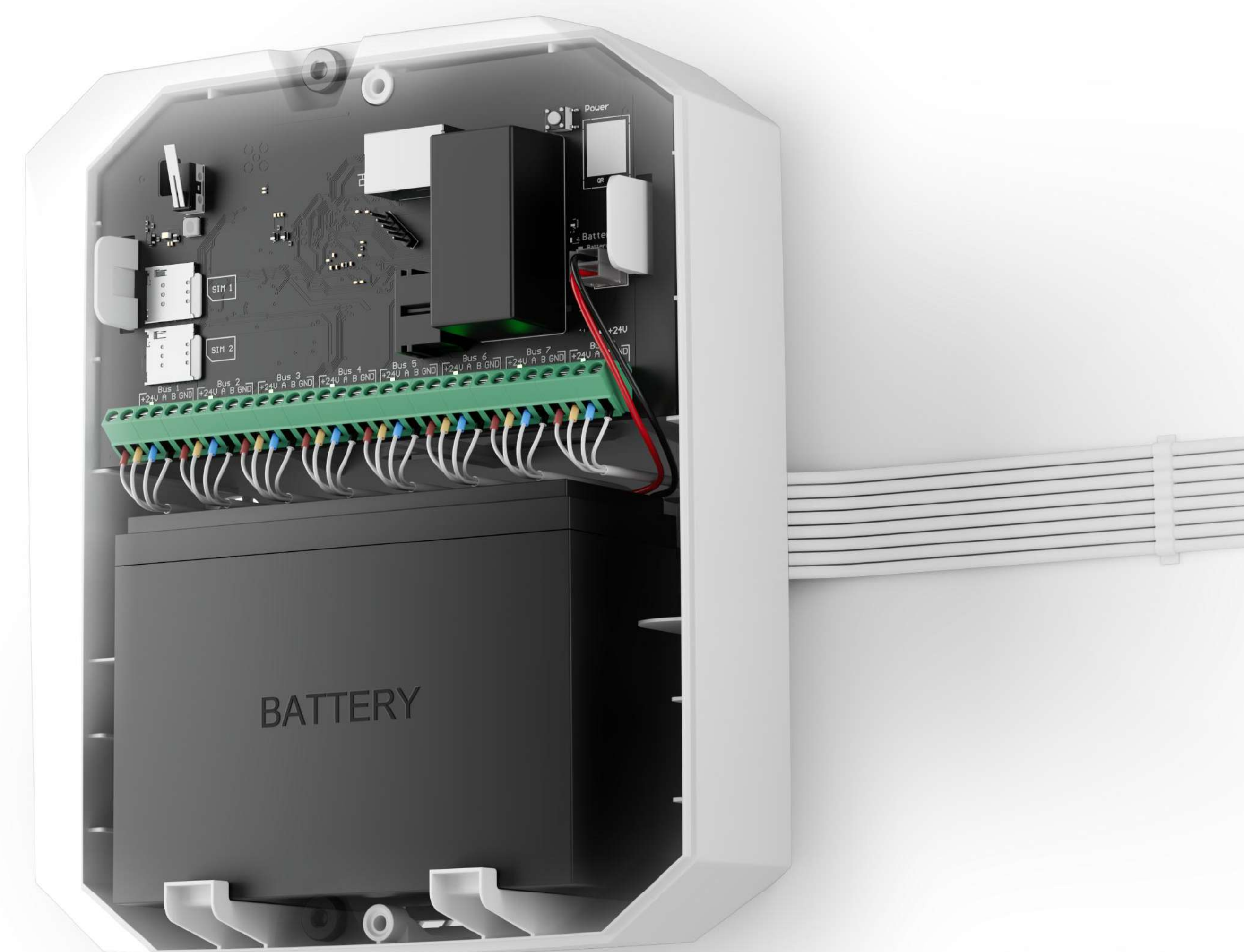


Hub Hybrid is available in two versions: Hub Hybrid (2G) supporting 2G cellular networks and Hub Hybrid (4G) supporting 2G, 3G, and 4G/LTE networks.

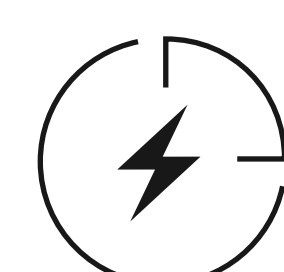
## More than two days of running on a backup battery

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 high system autonomy in case of a blackout. Hub Hybrid with 7 Ah battery backup powers a system of 30 Fibra devices for **up to 60 hours**. This is five times longer than required for Grade 2 and actually meets Grade 3 requirements.



A system with 30 connected Fibra devices runs up to 60 hours on a backup battery



The power consumption of Fibra devices is 100 times lower compared to similar detectors from other manufacturers

## Convenience down to details

Security detectors, keypads, and sirens are connected to one line to ensure the security of a specific zone at the facility.

Once devices are installed, an engineer launches automatic line scanning in the Ajax PRO app. It shows all devices connected to the Fibra lines. The installer can then assign 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 the alarm.

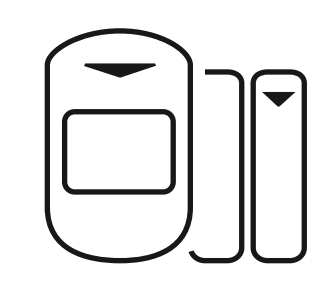


After installing the system, an engineer runs the **Bus Power Test**. It simulates the maximum possible power consumption: detectors give alarms, keypads are activated, and sirens are turned on. If the system passes the test, it will have sufficient power in any case.

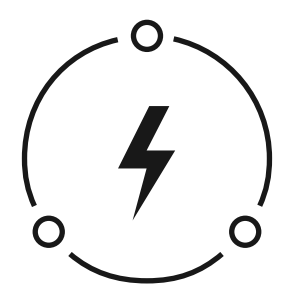
A monitoring station engineer does not need to configure zones manually. PRO Desktop monitoring software automatically synchronises all information about the hub devices.



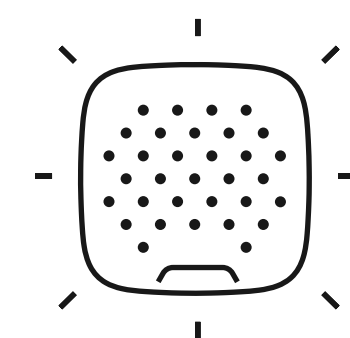
Configuring via a smartphone or desktop app



Line scanning function

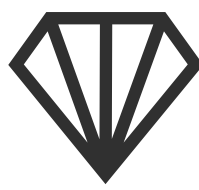



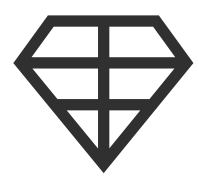
Bus Power Test



Device identification via LED indication or by alarm

## Technical specifications

Compliance with standards	EN 50131 (Grade 3) PD 6662:2017 INCERT for Hub Hybrid (2G) SSF NIST (AES-128)	CMS connectivity	SurGard (Contact ID) SIA (DC-09) Other proprietary protocols
Devices	Up to 100 wired / wireless devices Including up to 5 range extenders and up to 10 sirens or keypads with a built-in siren	Features	50 users 32 automation scenarios 25 cameras or DVRs 9 security groups 50 virtual rooms
Communication channels with Ajax devices	 <b>Fibra communication technology</b>  <b>Communication range</b> up to 2,000 m With U/UTP cat.5, 4x2x0,51 cable   <b>Jeweller communication technology</b>  <b>Communication range</b> up to 2,000 m In an open space	External communication channels	<b>Ethernet</b> 8P8C socket Up to 100 Mb/s  <b>Cellular networks</b> 2 slots for mini SIM cards  <b>Hub Hybrid (2G)</b> 2G GSM900/DCS1800 (B3/B8)

<p>Communication channels with Ajax devices</p>	<p> <b>Wings communication technology</b>  Communication range up to 1,700 m  In an open space</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 sales region</p> <p><b>Maximum effective radiated power (ERP)</b>  ≤ 25 mW</p>	<p>External communication channels</p>	<p><b>Hub Hybrid (4G)</b>  2G  GSM900/DCS1800 (B3/B8)</p> <p>3G  WCDMA 850/900/2100 (B1/B5/B8)</p> <p>4G/LTE  FDD B1/B3/B5/B7/B8/B20</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> battery with 4, 7, or 9 Ah capacity  Backup battery not included in the set</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>Protection class</b>  IP50</p>
<p>Casing</p>	<p><b>Color</b>  white, black</p> <p><b>Dimensions</b>  196 × 238 × 100 mm</p> <p><b>Weight</b>  852 g</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) board  Casing  Power cable  Screw terminal block  Adapter*  12 V<sup>==</sup> battery connection cable  Ethernet cable  Installation kit  8 terminating resistors (120 Ω)  Quick start guide</p>

\*Only for INCERT compliance.