

LineSplit

Module to split one Fibra line into four lines

Design security systems freely with LineSplit Fibra

LineSplit brings a new level of flexibility into the installation process. There is no need to replace wiring if you want to replace an outdated security system with Ajax. The module can be installed at any point of the Fibra line (even after another LineSplit). It splits one Fibra line into four and extends each one of them by 2,000 m¹. LineSplit inherits all the advantages of Ajax smart devices: it is easy to control the module from the app, receive event notifications, and configure or test LineSplit remotely.

Splits one Fibra line into four ones	Can be installed at any point of the Fibra line even after another LineSplit as well	Fibra wired connection Two-way communication, TDMA, Encryption, Protection against spoofing, Protection against short circuit	Up to 2,000 m distance of wired communication with an Ajax hub	Additional length of Fibra line + 2,000 m for each LineSplit output ²
Informative notifications in the app Office. LineSplit Fibra in Corridor is online again. Connection via Fibra channel restored. Production. Enclosure tamper switch connected, LineSplit Fibre in workshop № 1.	Remote control and configuration	Low power consumption up to 0.22 W	Tamper alarm when mounted into Case ³	Compliance Grade 3 (EN 50131) PD 6662:2017

Compatible hubs

- [Hub Hybrid \(2G\)](#)
- [Hub Hybrid \(4G\)](#)

This is the wired device of the **Fibra product line**. Only accredited Ajax Systems partners can sell, install, and administer Fibra products.

One device, two missions

More freedom in installation

LineSplit provides enhanced flexibility during the installation of a security system. Devices can be installed safely, reducing cable and installation costs.

An installer can run a single cable to LineSplit to cover different rooms with separate lines and then run the cables to other rooms. Without LineSplit, an installer would have to run a cable directly from the hub for each line. This makes the system and its installation more complex and, consequently, more expensive.

Renovating outdated wired system

You can replace a legacy security system with Ajax without replacing wiring. Old devices are replaced with Fibra devices. And the already installed cables and their topology can be reused.

If the system already has splitters installed, the appropriate number of the LineSplit modules is installed at the required points. It saves installers time and money on laying new cables.

Easy to mount into Case

LineSplit is inserted into Case. This casing has an optimal arrangement of wire channels, special holders for the module, and the tamper module. Several variations of casings are available.

You can mount one LineSplit module into Case or fit several devices. The required minimum number of casings can be selected for the facility's needs, which saves the budget and speeds up the installation of the security system.

Unique wired technology

Fibra is a protocol to ensure fast and secure two-way wired communication between the hub and connected devices. Fibra delivers instant data-rich notifications: security companies and users know which device was triggered, when, and where it happened.

Fibra features encryption and authentication to prevent spoofing and polling to display the current statuses of the devices. Supporting up to 2,000 m of wired connectivity, Fibra is ready to protect any object and deliver the best user experience for both system owners and installers.

LineSplit can be installed at any point of the Fibra line. It splits one Fibra line into four and extends each one of them by 2,000 m¹. Any Fibra device can be connected to the module: opening or glass-breaking detectors, sirens, detectors with photo verification, etc.

Encrypted two-way communication	Connect any Fibra device to the line	Fibra line extension up to 2,000 m²
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Energy efficiency first

The module consumes up to 0,22 W at peak consumption times. With such low power consumption, an installer can connect more devices to a Fibra line and lengthen the wired connectivity.

Fibra communication follows the TDMA principle. Each device has a short time frame to exchange data with a hub. The rest of the time, their communication modules are inactive. This significantly reduces power consumption and helps avoid interferences even when multiple devices communicate simultaneously.

- LineSplit consumption is up to 0,22 W
- TDMA and power-saving modes

Sabotage resistance

<div style="border: 1px solid black; background-color: #e1f5fe; padding: 5px; margin-bottom: 10px;">Tamper alarm³</div> <p>The casing where LineSplit is installed has a tamper module that warns a monitoring company and system users about an attempt to open Case or remove the device from the mounting panel.</p>	<div style="border: 1px solid black; background-color: #e1f5fe; padding: 5px; margin-bottom: 10px;">Protection against short circuits</div> <p>Fibra protocol and a special digital algorithm provide reliable protection against unnoticed short-circuiting of the module. If someone tries to short-circuit it, it notifies of a malfunction. Hub informs both the Central Monitoring Station (CMS) and users about the incident.</p>
<div style="border: 1px solid black; background-color: #e1f5fe; padding: 5px; margin-bottom: 10px;">Encryption of transmitted data</div> <p>All data the system stores and transmits is protected by block encryption with a dynamic key. Encryption makes it extremely difficult to connect to the module with the intention of sabotage.</p>	<div style="border: 1px solid black; background-color: #e1f5fe; padding: 5px; margin-bottom: 10px;">Device authentication against spoofing</div> <p>The hub checks the device's unique parameters for authentication during each communication session. If any parameter fails the check, the hub ignores device commands.</p>
<div style="border: 1px solid black; background-color: #e1f5fe; padding: 5px; margin-bottom: 10px;">Communication failure detection</div> <p>The device regularly exchanges data with the hub. With minimal polling settings (3 data packages in 12 seconds), it takes 36 seconds to identify communication loss and notify the security company and users about the incident.</p>	<div style="border: 1px solid black; background-color: #e1f5fe; padding: 5px; margin-bottom: 10px;">Event notifications</div> <p>The monitoring station instantly receives notifications on events. The information includes time, device type and name, event type, and location room⁴.</p>

Convenient to work for PROs

Installing a wired system is always a challenge. We have taken care of the quick installation of LineSplit Fibra. The module is installed into Case and can be mounted in just a few minutes. With few clicks, it can be paired with the hub in the apps for iOS, Android, macOS, and Windows. Installers can configure the device remotely in the Ajax apps.

Fibra power supply calculator

Use our online calculator to ensure the Fibra system covers your facility. It helps verify the project of a wired security system and provides additional information for installers.

Installation

- Installation into Case
- Case has special holders to secure the module
- Jumper included

LineSplit Fibra is installed into Case, which has an optimal arrangement of channels for wires, special holders for the module, and the built-in tamper module. There are several variations with different sizes of casings. Installation kit with dowels and screws included. No tools are required to install LineSplit into Case.

Setup

- Pairing with a hub via line scanning or QR code
- Device identification via triggering or LED indication
- Optimal default settings

Installers can add a module in two ways: automatically scanning lines or scanning a QR code. When scanning lines, there are two ways to identify the desired device: by clicking in the app or tamper activating. When an installer adds a device, it will immediately have a default name and settings are suitable for most cases.

Configuration

- Configuration and testing remotely and on-site
- Desktop and mobile apps
- Accounts for companies and installers

Forget about configuring via the keyboard. All testing and configuration are performed in mobile and desktop Ajax apps. An installer can work both on behalf of the company and as a sole installer.

Monitoring

- Fully addressability of the device
- Instant notifications in Ajax apps
- Alarm and event monitoring in PRO Desktop for monitoring companies

With proprietary protocols, any Ajax system can transmit alarms to the [PRO Desktop](#) monitoring app and third-party CMS. When an alarm is received, the monitoring station operator knows what happened and where the rapid response unit has to be sent. All Ajax devices are addressable, so events, the device type, its assigned name and room can be transmitted to PRO Desktop or third-party monitoring software.

1 – When using a twisted pair cable UTP cat. 5. Other cables may have different values.

👉 [Fibra power supply calculator](#).

2 – LineSplit Fibra does not provide additional power supply to the line.

3 – Notification of attempts to break or open Case. Case is sold separately.

Case has a tamper module connected to the LineSplit terminals (indicated as TAMPER on a device board).

LineSplit itself does not have a tamper.

4 – The list of transmitted parameters may differ depending on the type of the CMS and the selected communication protocol.