

MultiRelay Fibra

Four-channel relay with potential-free contacts to control power supply remotely

Advanced automation for greater safety

MultiRelay Fibra is a relay module designed to implement complex wiring diagrams. It has four relays with potential-free (dry) contacts that can control four separate circuits independently. MultiRelay can integrate various appliances, electrical mechanisms and even third-party security devices into the Ajax system. With Ajax scenarios, the module provides fully automated actions in response to alarms and security mode changes or performs them by a specified schedule.

4 independent relays	Protection against overheating All relays are deactivated if at least one of them exceeds +80°C		
Automation scenarios	Informative in-app notifications Warehouse: Gate switched on by Hannah Office: Open-space lights switched off, scenario Night time		
Remote control and configuration	Grade 3		
Potential-free contacts Operate with both AC and DC circuits	Low power consumption Up to 0.18 W		
In-line connection with different types of devices	Up to 2,000 m range of communication with an Ajax hub		
2 operation modes <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>Bistable</td> </tr> <tr> <td>Pulse</td> </tr> </table>	Bistable	Pulse	Fibra wired communication Two-way communication TDMA Encryption Protection against spoofing Short-circuit detection
Bistable			
Pulse			
Steady contact state The current state of contacts remains the same after a power outage	Tamper alarm when installed into Case		

Compatible hubs

- Hub Hybrid (2G)
- Hub Hybrid (4G)

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

Remote power supply control

Electric locks	Lighting and power supply	Access control	Automatic gates / barriers	Roller shutters / blinds	Fog generators
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Smart security and comfort

Use automation scenarios to make life safer and more comfortable. Set your office lights to turn off automatically on arming. Program your projectors to turn on when outdoor motion detectors identify intruders. Or turn on your toaster at a certain time in the morning.

5 automation elements with MultiRelay

4 separate circuits control

The module has four relays that can control four separate circuits independently, meaning it can maintain four different appliances or electric mechanisms. Automation scenarios can be configured for each relay separately. Also, several relays can be connected to control one device if required by the wiring scheme.

Impulse and bistable modes

Each relay supports two operation modes:

- **Bistable** – the relay changes contact state after each activation, turning the connected appliance on or off.
- **Pulse** – the relay changes contact state for the adjustable time (from 10 s to 2 h).

The mode can be configured in Ajax apps for each relay separately.

Steady contact state

The device retains the current contact state of a relay. After a power loss and subsequent restoration, the contact state remains unchanged. The feature can be activated in Ajax apps for each relay separately.

Support for both AC and DC circuits

The module has relays with potential-free (dry) contacts and can control circuits with direct, alternating, or no current.

Configurable NC/NO contact states

Each relay supports two contact states:

- **Normally closed (NC)** – the relay stops supplying power when activated and resumes when deactivated.
- **Normally open (NO)** – the relay supplies power when activated and stops when deactivated.

The normal contact state can be configured in Ajax apps.

One multi-purpose casing

The convenience for PROs is a big priority, so Ajax products are always thought out to every detail, hence easy to work with. That's why we created Case, a one-stop casing suitable for module-type Fibra devices. Various size options facilitate combining multiple modules, optimizing space and reducing installation expenses. MultiRelay is compatible with Case² and can be installed in a single casing with other devices.

Unique wired technology

The Ajax system uses secure two-way communication based on the **Fibra proprietary protocol**. It features **encryption** and **device authentication** to prevent sabotage, spoofing, or data theft. Fibra lines are **multifunctional** and support connecting different types of devices to one line: sirens, keypads, and detectors with photo verification.

- Up to 2,000 m¹ of wired communication with a hub
- One line for different types of devices
- Protection against sabotage and spoofing

Energy efficiency as a priority

Fibra communication requires minimum power consumption: the module consumes **only up to 0.18 W** at its peak. Fibra also follows the TDMA principle. Each device has a short time frame to exchange data with a hub, and its communication module is inactive the rest of the time. This significantly reduces power consumption and helps avoid interferences even when multiple devices communicate simultaneously.

- Power consumption of up to 0.18 W
- TDMA and power-saving mode

Sabotage resistance

Tamper alarm³

MultiRelay needs to be installed into **Case**, which has a built-in tamper. The tamper notifies the security company and users about attempts to open Case or detach it from the surface.

Data encryption

All data the system stores and transmits is protected by a block cypher with a dynamic key. Encryption makes it extremely difficult to reprogram the device, replace or steal the data.

<p>Regular polling</p> <p>The device regularly exchanges data with the hub. The system controls each device state and reports if there is a malfunction or connection loss.</p>	<p>Protection against short circuit</p> <p>The system instantly detects a short circuit on the line and notifies the security company and the users. And when the problem is fixed, there is no need to replace the fuses: the system will restore operation automatically.</p>
<p>Data-rich notifications</p> <p>The Ajax system instantly notifies about alarms and events with informative notifications: security companies and users know exactly which device triggered, when and where it happened.</p>	<p>Device authentication against spoofing</p> <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>

PRO is king

The myth about wired systems being difficult to install is busted. Ajax minimized an expensive, long, and dusty experience for PROs by developing an ultimate set of tools to make the process easy and flexible, from project design to client support and system maintenance. The module is installed inside Case with only one move of the hand. Intuitive Ajax apps help quickly make the device a part of the system, and each device can always be reconfigured remotely without site visits. No need for programmers – everything is available out-of-box.

Fibra power supply calculator

The online tool provides security specialists with comprehensive information about the devices' power consumption. It's easy to check before installation whether the wired system project will work in practice. The calculator allows real-time project-making, highlighting the problem areas and offering solutions. Once the calculations are finished, the results can be downloaded as a PDF file.

Installation

The module needs to be installed into Case. The installation kit includes all the necessary fasteners. The casing has holders for device placement which are flexible and require only one move of hand to install the module inside. A built-in spirit level and slightly bigger fixing points assist the professional in a perfectly accurate mounting position. Inside, Case has special fasteners for cable management and several perforated parts on the sides and back for wiring out cables. Markings for drill positioning and special protectors inside help to stop the drill before it hits holders or other components. The top lid of the casing is equipped with anti-falling screws to prevent accidental dropping of installation parts.

- Installing into Case²
- All the necessary fasteners included in the installation kit
- Thought-out cable management

Setup

The device is paired with the hub automatically via Fibra line scanning. This tool is available in the desktop or mobile PRO apps. An installer only needs to name the device and assign it to the room and security group. The device can also be added by scanning the QR code or entering its ID manually.

- Pairing with a hub via automatic line scanning or QR code
- Optimal default settings to cover major requests

Configuration

Intuitive Ajax apps provide remote set-up and all device information from anywhere the Internet is available, on a smartphone or PC. An installer can remotely change the settings and provide services in-time. No need to visit the object.

- Apps for iOS, Android, macOS, and Windows
- Remote configuration without site visits
- Accounts for companies and installers

Monitoring

MultiRelay has two-way communication and ultimate informativeness. The security company will receive an alarm notification in less than a second. Notifications include all the necessary information: name of the device, time of the event, and even the exact room where the device is located. CMS also receives photo verification, capturing the reason for the alarm.

- Full addressability of connected devices
- Instant notifications in Ajax apps
- Alarms and events monitoring in PRO Desktop for security companies

1 – With U/UTP cat.5 4×2×0.51 cable. Other cable types may have different values. Please use **Fibra power supply calculator** to check the wired system project before installation.

2 – Case is sold separately.

3 – Notification about attempts to open **Case** or detach it from the surface. Available only when MultiRelay Fibra is installed into Case. Case is sold separately.