

Superior SeismoProtect G3 Fibra

Wired seismic detector with an additional shock sensor

High-security protection for valuables

Meet a Grade 3 protection for your valuables with Superior SeismoProtect G3 Fibra. It is designed to detect vibrations caused by drilling or cutting attempts and explosions. The detector also identifies physical force, such as bending or pushing, temperature changes near the enclosure, and quickly reacts to shocks and tilt. The advanced software algorithm analyzes all detected vibrations to filter out false alarms. Installation is easy and convenient, requiring no extra cost: everything an installer might need to do the job is included.

Key features

<div>Detection radius</div> <div>4 m 13.1 ft for concrete 2 m 6.5 ft for steel</div>	<div>Self-test device</div> <div>automatically checks the piezoelectric sensor operation</div>	<div>Two operating modes:</div> <div>Seismic Shock</div>	<div>Informative push notifications</div> <div>Critical Ajax Bank: vibration detected, SeismoProtect in Vault</div> <div>Critical Ajax Home: tilt detected by SeismoProtect in Safe</div>
<div>False alarm filter</div>	<div>Accurate detection in any conditions</div> <div>with an adjustable sensitivity level</div> <div>High Normal Low</div>	<div>Detection of enclosure being drilled or cut</div> <div>with flexible PCB inside</div>	<div>Shock and tilt detection</div> <div>with a built-in accelerometer</div>
<div>Two tampers</div> <div>alert if the enclosure is being disassembled or detached from the surface</div>	<div>Complete set for installation</div> <div>Self-test device, mounting plate, 4-core armoured signal cable, and installation kit</div>	<div>Fibra wired communication</div>	<div>Up to 2,000 m (6,550 ft) of wired communication¹</div> <div>with an Ajax hub or a module that extends a Fibra line</div>
<div>Digital temperature sensor</div> <div>detects rapid heat rise</div>	<div>Two colors</div> <div>of matte enclosure</div>	<div>Ultra-low power consumption</div> <div>up to 0.29 W</div>	<div>Remote control and configuration</div> <div>Compliance</div> <div>Grade 3 (EN 50131)</div>

In an Ajax system, you can combine devices of all product categories: **Intrusion protection** (both Superior and Baseline), **Video surveillance**, **Fire and life safety**, or **Comfort and automation**. Create the system to suit your needs and manage it in a single interface.

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

Wherever there is a risk of intrusion

Bank	Museum	ATM	Armory
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Discover future-proof hardware

Piezoelectric sensor detects drilling, cutting, explosions, bending, pressing attempts, etc.		Accelerometer detects shock and tilt
Flexible PCB detects enclosure drilling and cutting	Digital temperature sensor detects rapid heat rise	Self-test device checks the piezoelectric sensor condition
Tamper against detaching the detector from the surface	Tamper against enclosure disassembling	Spirit level to perfectly mount the device

Ajax technologies against false alarms

When the device detects vibration, the structure-borne sound is instantly processed by hardware and converted into a signal, which is analyzed and correlated by a software algorithm. This procedure helps promptly distinguish real threats from false alarms caused by a swinging door, repair or maintenance work nearby, and passing trains or large vehicles.

Configurable sensor sensitivity

The piezoelectric sensor can adapt to the conditions of a particular facility, considering the installation surface and potential sources of false alarms. The sensitivity level defines the set of markers by which false alarms are filtered. Low sensitivity makes the detector less likely to respond to an active construction nearby. A high sensitivity will trigger the alarm in case any vibration is detected.

All informative and centralized

The system instantly notifies users about alarms with critical alerts via the Ajax apps. Informative push notifications include alarm type, device name, facility name, and device room. The alarm of each sensor also has its code for the CMS to identify the alarm type. Using proprietary protocols, the Ajax system can transmit alarms to the **PRO Desktop** monitoring app or third-party CMS. Upon receiving an alarm, the operator knows exactly where to dispatch the rapid response unit.

The event log records the 500 most recent events within the system. The data is explicit with the device, time, and event description. It helps reconstruct the actual event and find the causes to obtain comprehensive information for an insurance company.

Self-test device

The self-test device is designed to check the operational state of the piezoelectric sensor by imitating vibrations. It automatically diagnoses the sensor once a day. The test can also be run manually at any time through the Ajax app. The event log immediately displays the test result with all the necessary info.

- Included in the complete set
- Runs a test automatically once a day

- Can be installed on both steel and concrete

Advanced system supervision

The device performs automatic self-diagnosis and reports its status to the hub. Essential parameters, including tamper, communication, power supply, and sensor statuses, are continuously monitored. The Ajax Cloud server controls communication between the hub and Ajax apps, ensuring instant notifications for ARCs, security companies, and users. In case of any malfunction or communication failure, an engineer is informed immediately to provide necessary services.

- Automatic device self-diagnosis with status report
- Regular polling to display the current device state on apps
- Instant maintenance notifications

Sabotage resistance

Two tampers The enclosure has two tamper buttons to alert if the device is detached from the surface or the front lid is removed.	Detection of enclosure being drilled or cut The detector features a flexible PCB on the back of the front lid. It instantly detects enclosure drilling and cutting.	Temperature monitoring The detector features a digital temperature sensor that detects cutting the device (e.g., with oxy-fuel welding equipment).
Protection against short circuit 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.	Device authentication against spoofing The hub checks the device's unique parameters for authentication during each communication session. If any parameter fails the check, the hub ignores commands from the device.	Data encryption All data the system stores and transmits is protected by a block cipher with a dynamic key. Encryption makes it extremely difficult to reprogram the device, replace or steal the data.
Regular polling The device regularly exchanges data with the hub. The system controls each device state and reports if there is a malfunction or connection loss.	Communication failure detection The device regularly exchanges data with the hub. With maximum ping interval settings available (3 data packages once in 12 seconds), it takes only 36 seconds to identify communication loss and notify the security company and users about the incident.	

Next-level protection of Fibra line

Introducing LineProtect Fibra, the module designed to protect an Ajax hub and connected wired devices from sabotage when intruders cause overvoltage or short circuits, apply 110/230 V~, or use stun guns.

Unique wired technology

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

- Up to 2,000 m (6,550 ft) of wired communication¹ with a hub or a module that extends the Fibra line
- One line for different types of devices
- Photo delivery via Fibra line without interference
- Protection against sabotage and spoofing

Energy efficiency as a priority

Fibra communication requires minimum power consumption: the device consumes only up to 0.29 W at its peak. Fibra also follows the TDMA principle. Each device has a short time frame for exchanging data with a hub, and its communication module is inactive for 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 0.29 W
- TDMA and power-saving modes

Installation at no extra cost

The detector comes with everything an installer might need to do the job. Along with the device, the complete set includes a stainless steel mounting plate, a 1.5-meter armored 4-core signal cable, a self-test device, and an installation kit containing all the necessary fasteners.

Stainless steel mounting plate	Armored 4-core signal cable	Self-test device
Designed for installing the detector on a curved metal or reinforced concrete	Designed to safeguard hub-to-detector connection	Designed to check the piezoelectric sensor's operational state

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. There is no need to disassemble the device for installation. Intuitive Ajax apps help quickly make the device a part of the system, and each device can be reconfigured remotely at any moment. No programming required – everything is available out of the box.

Fibra power supply calculator

The online tool provides security engineers with detailed data on device power consumption, enabling easy pre-installation assessment of the wired system project. It helps design the project in real time, highlights problem spots, and offers solutions. Upon completion, results can be downloaded as a PDF file.

Installation

There is no need to disassemble the device: terminals are placed outside the enclosure under the front lid to eliminate hardware damage during installation. A built-in spirit level assists the professional in a perfectly accurate mounting position. The mounting plate helps to install the device on reinforced concrete. It has markings and prepared fixing points to ease installation. The plate can also be used as a template to drill holes and install the device without the mounting plate. The device can be both welded or fixed with screws.

- No need to disassemble the device’s enclosure
- All the necessary fasteners included in the installation kit

Setup

The device is paired with the hub automatically via Fibra line scanning. This tool is available via 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 setup and testing with all device information from anywhere over the internet, on a smartphone, or on a PC. An installer can remotely change the settings and provide services promptly without visiting the object.

- Configuration and testing remotely or on site
- iOS, Android, macOS, and Windows apps
- Accounts for companies and installers

Monitoring

An Ajax system transmits alarms to the **PRO Desktop** monitoring app or any third-party CMS. The security company receives an alarm notification in less than a second. Notifications include all the necessary information: name of the device, time of the event, and the exact room where the device is located. The security company also receives photo or video verification, capturing the reason for the alarm.

- Full addressability of connected devices
- Instant in-app notifications

¹ Wired Ajax devices have a communication range of up to 2,000 m (6,550 ft) without line extenders when using the U/UTP cat.5 twisted pair cable. Other cable types may have different values. Please use the **Fibra power supply calculator** to check the wired system project before installation.