

# GlassProtect Fibra

Wired glass break detector with a microphone

## Intruders can break silence, not security

Forget about the typical problem of glass break detectors – false alarms caused by barking dogs, traffic, water splashing, and extraneous noise. GlassProtect Fibra has a unique **DualTone** digital algorithm designed to minimize false alarms. The detector's microphone responds only to vibrations characteristic of the glass breaking sound. You can adjust one of three sensitivity levels and run the test to check if everything works properly.

## Key features

Up to 9 m glass break detection range	Up to 0.036 W low power consumption	DualTone digital algorithm that prevents false alarms	Easy wiring with removable device board
Up to 2,000 m communication range with an Ajax hub <sup>1</sup> or a module that extends the Fibra line	180° glass break detection angle	Adaptable to any facility with 3 sensitivity levels	Informative push notifications  <b>Critical Office:</b> Glass breakage detected. GlassProtect Fibra in Warehouse.  <b>Manufacturing:</b> Lid closed, GlassProtect Fibra in Office.
		2 colors of matte enclosure	
Remote control and configuration	Fibra wired communication  Power adjustment Encryption TDMA Two-way communication	Terminals to connect a third-party NC detector	Compliance  EN 50131 (Grade 2) PD 6662:2017 INCERT SSF

**Superior, Fibra, and Baseline** product lines are mutually compatible. This opens up numerous possibilities for building systems of any configuration.

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

## Protect windows, valuables, and glass doors

School	Medical centre	Car service	Office or coworking	Museum	Home	Store
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## Discover future-proof hardware

- Electret microphone

- Mainboard with terminals
- Tamper to prevent enclosure dismantling
- Tamper to prevent detachment from the surface
- Enclosure with fixing points
- Perforated parts for cable output either underneath the detector or through the wall
- A screw to secure the enclosure

## Responding to real threats only

GlassProtect Fibra uses a sensitive electret microphone to detect the sound of glass breaking and a DualTone digital algorithm to prevent false alarms. The sound of glass breaking consists of a low-frequency hit sound and a high-frequency crashing sound of shattered glass. Both sounds must be detected within 1.5 seconds for the detector to report an alarm. This two-stage glass break detection decreases the risk of false triggering. Additionally, one of three sensitivity levels can be configured in the Ajax app, making it easy to adjust the detector according to the conditions of any object.

👉 Note that GlassProtect Fibra precisely detects the breaking of glass that is not covered with a film. If a window or showcase is protected with any film or anti-shock cover, the sound will be muffled, and the sensor will not trigger. In such cases, we recommend using detectors with a shock sensor, such as DoorProtect Plus Fibra, DoorProtect G3 Fibra, or DoorProtect S Plus Jeweller.

## Easy integration with third-party detectors

GlassProtect Fibra has terminals for connecting a third-party wired NC detector. This allows you to enhance system reliability with any NC detector, whether newly installed or already in place, such as motion, opening, or vibration detectors. For example, GlassProtect Fibra enables you to integrate an existing third-party<sup>2</sup> opening detector into the system.

Opening detector	Vibration detector	Motion detector
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## 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 of wired communication with a hub<sup>1</sup> 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, with the detector's consuming only up to 0.036 W at its peak. Fibra operates on the TDMA principle. Each device has a short time frame to exchange data with a hub, and its communication module remains 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 0.036 W
- TDMA and power-saving modes

## System supervision

All Ajax devices perform automatic self-diagnosis and report their states 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

Tamper alarm	Protection against short circuits
The glass break detector has two tamper buttons that alert system users and the Central Monitoring Station (CMS) of any attempt to open the enclosure or remove the device from the wall.	The Fibra protocol, combined with a DualTone digital algorithm, ensures reliable protection against unnoticed short circuits of the detector. If someone attempts to short circuit it, the device promptly notifies of a malfunction. The hub informs both the CMS and users about the incident.
Encryption of transmitted data	authentication against spoofing
All stored and transmitted data are protected by block encryption with a dynamic key. The encryption makes it extremely difficult for intruders attempting to connect to the detector with the intention of sabotage.	During each communication session, the hub authenticates the device by checking its unique parameters. If any parameter fails the check, the hub ignores the device commands.
Communication loss detection	Event notifications
The device regularly exchanges data with the hub. With minimal polling interval settings (3 data packages every 12 seconds), it takes only 36 seconds to detect communication loss and notify the security company and users about the incident.	The CMS instantly receives notifications of alarms and detector events. The information includes the time, device model and name, event type, and location room.

### Next-level protection of Fibra line

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

## 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. Everything for smooth and quick installation is included. Intuitive Ajax apps help 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 devices' 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.

<h2>Installation</h2> <p>The installation kit includes all the necessary fasteners. The device board is removable, which makes the connection process more comfortable. For cable management, there are several perforated parts for cable routing.</p> <ul style="list-style-type: none"> <li>● Removable device board</li> <li>● All the necessary fasteners included in the installation kit</li> <li>● Holding screw to secure the device</li> <li>●</li> </ul>	<h2>Setup</h2> <p>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.</p> <ul style="list-style-type: none"> <li>● Pairing with a hub via automatic line scanning or QR code</li> <li>● Device identification via triggering or LED indication</li> <li>● Optimal default settings to cover major requests</li> </ul>
<h2>Configuration</h2> <p>Intuitive Ajax apps provide remote set-up and testing with all device information from anywhere the Internet is available, on a smartphone or PC. An installer can remotely change the settings and provide services promptly without visiting the object.</p> <ul style="list-style-type: none"> <li>● Configuration and testing remotely or on site</li> <li>● iOS, Android, macOS, and Windows apps</li> <li>● Accounts for companies and installers</li> <li>●</li> </ul>	<h2>Monitoring</h2> <p>An Ajax system transmits alarms to the <b>PRO Desktop</b> 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.</p> <ul style="list-style-type: none"> <li>● Full addressability of connected devices</li> <li>● Instant in-app notifications</li> <li>● Alarm and event monitoring through Ajax PRO Desktop or third-party CMS</li> <li>●</li> </ul>

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

<sup>2</sup> GlassProtect Fibra can not power the third-party detector. The power supply for this detector should be connected separately.