

DoorProtect G3 Fibra

Wired opening, shock, and tilt detector

Guardian for doors, windows, and valuables

DoorProtect G3 Fibra is designed to detect intrusion and burglary attempts, offering comprehensive coverage for doors, windows, skylights, and vaults. The detector is equipped with two reed switches as opening sensors and a magnetometer for protection against magnet spoofing. Two sizes of magnets provide more mounting options. The device also identifies shock and tilt with a built-in accelerometer, protecting the facility even when windows are in airing mode. All in line with the Ajax user experience, ensuring quick and easy installation of the device.

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| <p>Two reed switches</p> <p>the magnet can be placed on the left or right side of the detector</p> | <p>Shock and tilt detection</p> <p>with a built-in accelerometer</p> | <p>Protection against magnet spoofing</p> <p>with a built-in magnetometer</p> | <p>No impact from metal surfaces</p> <p>on the magnet and reed switches, thanks to plastic spacers</p> |
| <p>Protection against chattering</p> <p>to prevent false alarms</p> | <p>Adaptable to any object</p> <p>adjustable shock and tilt sensors</p> | <p>Chime¹ feature</p> <p>suitable for shops, commercial and non-commercial facilities</p> | <p>Easy wiring</p> <p>with removable device board</p> |
| <p>Informative push notifications</p> <p>Office: Opening detected, DoorProtect G3 Fibra in Hall No. 1</p> <p>Production: Shock detected by DoorProtect G3 Fibra in Workshop No. 1</p> | <p>Fibra wired connection</p> <p>two-way communication TDMA encryption protection against spoofing protection against short circuits</p> | <p>Up to 0.035 W</p> <p>low power consumption</p> | <p>Two colours</p> <p>of matte enclosure</p> |
| | | <p>180° rotation</p> <p>of the front panel is possible during installation</p> | |
| <p>Remote control and configuration</p> | <p>Up to 2,000 m</p> <p>communication range with an Ajax hub² or a module that extends the Fibra line</p> | <p>Terminals to connect a third-party NC detector</p> | <p>Compliance</p> <p>Grade 3 (EN 50131) PD 6662:2017</p> |

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.

Protection for high-security facilities

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|-------------|---------------|----------------------|--------------------|---------------|
| Bank | Museum | Jewelry store | Medical lab | Armory |
|-------------|---------------|----------------------|--------------------|---------------|

Future-proof hardware

- Two reed switches
- Accelerometer
- Holding screw to secure the detector's casing
- Removable device board
- Tamper against casing disassembling
- Tamper against detaching the detector from the surface
- Fixing points for mounting the detector
- Perforated parts for wire routing

No intruder goes unnoticed

High-end reed switches for reliable opening detection

DoorProtect G3 Fibra features two durable reed switches with a minimum service life of 1,000,000 openings, guaranteeing decades of trouble-free operation. Housed in resilient plastic capsules, these switches remain intact even in cases of drops or transportation, ensuring the detector's effective functionality irrespective of magnet placement.

- Reed switch service life exceeds 1,000,000 openings
- Effective detection wherever the magnet is placed – left or right
- Plastic capsules for protecting reed switches during transportation

Magnetometer prevents sabotage

The integrated high-end magnetometer records local magnetic field data during calibration, allowing the sensor to identify and monitor the installed magnet. Immediate alarms are triggered by any changes in the magnetic field, providing protection against magnet spoofing. The straightforward calibration process and adjustment of sensitivity levels in the app ensure precise interference detection and eliminate false alarms. Plastic spacers in the mounting kit reduce the impact of metal surfaces when the detector is installed, for example, on the vault door.

- Magnetometer for interference detection
- Calibration of the magnetometer for high accuracy
- Plastic spacers for mitigating interference from metal surfaces

Immediate detection of threats

The built-in accelerometer responds swiftly to shocks, detecting potential burglary attempts such as door forcing and vault breaking. The shock sensor has three levels of sensitivity, which can be adjusted to match the secured facility specifics. The detector can also ignore a single impact to minimize the risk of false alarms triggered by external factors. Whether there are vibrations from neighboring constructions or heavy passing traffic, the installer can choose the most appropriate settings for accurate detection.

- Early identification of threats through shock detection
- Three sensitivity levels

- Single shock ignoring to prevent false alarms

Windows protection in an airing mode

The built-in accelerometer is designed to protect open windows, seamlessly adapting to diverse facility requirements. Installers can select a normal tilt angle for doors or windows, ranging from 5 to 25 degrees. The system swiftly detects even the slightest deviations from the usual position and provides customizable tilt detection durations, ranging from 1 second to 1 minute. In case the tilt angle surpasses the specified threshold for an extended period, the system raises an alarm.

- Tilt detection
- Selection of the normal tilt angle
- Adjustable time of alarm

Enhanced security with additional detectors

DoorProtect G3 Fibra has terminals for connecting any third-party wired NC detector, enhancing the reliability of the entire system. For example, an installer can integrate an additional detector operating on a different principle, such as a roller shutter motion detector. When connected to DoorProtect G3 Fibra, it promptly responds to alarms from detectors and cable breakage³.

Use a detector as a doorbell

The Chime feature transforms the combination of an Ajax opening detector and Ajax siren into a shopkeeper's bell. When the system is disarmed, the siren notifies about door openings with one of four available short beep patterns. Pro users can choose the volume of sound, and different patterns can be assigned for separate entrances, making it easy to recognize whether someone entered through the main or a back door.

- Door opening sound signals
- Setting up signals for different security groups
- Customizable signals for separate entrances

For the Chimes feature to work, the system needs to contain a siren.

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 promptly informed to provide necessary services.

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

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 or a module that extends the Fibra line²
- 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 module consuming only up to 0.035 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.

- Detector power consumption is up to 0.035 W
- TDMA and power-saving modes

Sabotage resistance

Tamper alarm

Despite its compact size, the detector enclosure contains two tampers. The first one triggers an alert when the detector front panel is removed. The second one activates if there's an attempt to detach the detector from the surface. If a thief tries to do something with the detector, the system will immediately notify the security company and users about the incident.

Magnet spoofing alarm

The detector features a built-in high-end magnetometer that constantly monitors the magnetic field surrounding it. It promptly notifies users and the CMS in case of interference. It is impossible to trick the detector with a powerful magnet without the system noticing it.

Authentication against detector spoofing

During each communication session, the hub authenticates the device using its unique parameters. If any parameter fails the authentication check, the hub ignores device commands.

Protection against short circuits

Fibra protocol, combined with a special digital algorithm, provides reliable protection against unnoticed short-circuiting of the device. If someone tries to short-circuit it, the device will notify of a malfunction. The hub informs both the Central Monitoring Station (CMS) and users about the incident.

Encryption of transmitted data

All data the system stores and transmits is protected by block encryption featuring a dynamic key. This encryption deters intentional sabotage attempts on the detector.

Regular polling

The device regularly exchanges data with the hub. At minimal polling settings (3 data packages in 12 seconds), it takes just 36 seconds to detect communication loss and notify both the security company and

users about the incident.

Data-rich notifications

Both the monitoring station and security system users instantly receive notifications about events. The information provided includes time, device name, event type, and room location⁴.

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 need for programmers – 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.

Installation

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.

- Removable device board
- All the necessary fasteners included in the installation kit
- Holding screw to secure the device on a mounting panel

Configuration

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.

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

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
- Device identification via triggering or LED indication
- Optimal default settings to cover major requests

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
- Alarm and event monitoring through Ajax PRO Desktop or third-party CMS

¹ The Chime feature requires **an Ajax siren** to operate. **Learn more about Chime.**

² 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.

³ A roller shutter can detect cable breakage, while an NC detector responds only to alarms.

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