

Relay Jeweller

Dry contact relay to control 12–24V $\overline{=}$ power supply and appliances remotely.

A hub is required for operation.



Key features



Potential-free contacts



Executes automation scenarios



Up to 1,000 m of two-way encrypted wireless communication with hub or range extender



Operates in bistable or pulse mode.
Adjustable pulse duration:
from 1 to 255 seconds



Device is controlled via mobile and desktop apps or manually with the device function button



Pairing with a hub via QR code

Operating principle

The relay is installed in the electrical circuit gap to control the power supply of devices connected to this circuit. Relay is controlled via the device function button, the Ajax apps, Button, and automation scenarios.

Relay features potential-free (dry) contacts. Dry contacts are galvanically isolated with the power supply circuit. Therefore, the relay can control both circuits powered by a supply current (12 or 24 V $\overline{=}$) or any other circuits. For example, 110 or 230 V $\sim$ circuits.

Flexibility

Relay is installed in the electrical circuit gap to control the power supply of devices connected to this circuit. It can operate as a momentary or latching switch, supporting both pulse and bistable modes. A user with administrator rights or a PRO can set the operating mode in Ajax apps.

If Relay operates in pulse mode, the duration of its activation can be configured from 1 to 255 seconds. The normal state of the relay contacts is also configurable:

Normally closed — the relay stops supplying power when activated and resumes when deactivated.

Normally open — the relay supplies power when activated and stops when deactivated.

Flexibility

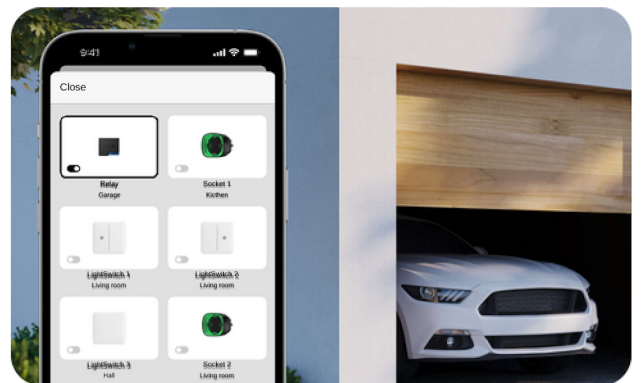


Flood-prevention system

Relay can control shut-off water valve at the facility. In case the washing machine breaks or pipe bursts, water shut off by a scenario after leak detection by LeaksProtect or third-party leak detector.

Automatic gates or barriers

Relay is capable of controlling opening-closing electrically driven gates and barriers which are equipped with a remote control unit.



LightSwitch 1 Socket
Bedroom Hall

Living Room Kitchen Hall Bathroom

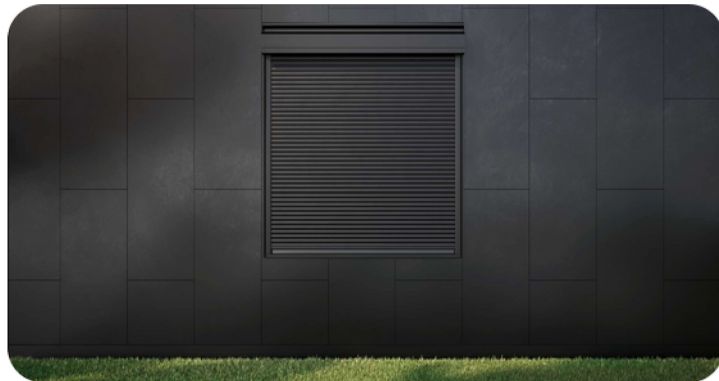
Electric lock

Relay has the possibility to block access to premises by alarm or Night Mode activation. Also, it can lock or unlock a door with the app or Button.



Security smoke cannon

Relay can be triggered via scenarios by any detector alarm or panic button press. Activation of smoke cannon by the Relay reliably shelters people and valuables from burglars.



Roller blinds or motorised curtains

The equipment is controlled remotely by Relay through the app, via Button, or scenario: when changing the security mode, according to the time of day, or by alarm activation.

ACS blocking

Relay can block Access Control System reader when the security system is armed. It prevents employee access to protected premises and helps to avoid false alarms.



Automation scenarios

Scenarios provide an advanced level of comfort and protection for your client's and their property. Relay supports the following types of automation scenarios:

Security mode change reactions

Scheduled actions

Alarm reactions



Reactions to temperature changes



Reactions to carbon dioxide (CO₂) concentration

Reactions to carbon dioxide (CO₂) concentration



Reactions to humidity changes

Reactions to humidity changes



Reactions to pressing LightSwitch



Jeweller

communication technology



Jeweller is a **two-way wireless data transfer protocol** to provide fast and reliable communication between hub and connected devices. The protocol helps monitor and control connected devices via Ajax apps. All data transfers — from the hub to a device or from a device to the cloud — are delivered in small data packets and protected with floating key encryption.

Jeweller is ready to protect any facilities and deliver the best user experience for both end users and installers, supporting up to 1,000 m of wireless connectivity.

Installation

Relay can be sited into a switching unit body owing to its size: 39×33×18 mm. With DIN Holder, the relay can be mounted on a standard 35 mm DIN rail and installed in a junction box, server cabinet, or electrical panel. Relay is fitted in the holder casing and mounted on a rail using side hinges, so no tools are required. Connecting Relay to the hub takes less than a minute — it's enough to connect to device external power and scan a QR code with the Ajax app.



DIN Holder solds separately.

Technical specifications

Communication with control panel	Jeweller communication technology Frequency bands 866.0 – 866.5 MHz 868.0 – 868.6 MHz 868.7 – 869.2 MHz 905.0 – 926.5 MHz 915.85 – 926.5 MHz 921.0 – 922.0 MHz Depends on the region of sale Maximum effective radiated power (ERP) ≤ 20 mW Communication range up to 1,000 m in line of sight Polling interval 12–300 sec Set by admin or a PRO user in the app	Compatibility	Hubs all Ajax hubs Range extenders all Ajax radio signal range extenders
Power	Power supply 7–24 V$\overline{=}$ Recommended value: 12 V$\overline{=}$ or 24 V$\overline{=}$ Maximum load current 5 A at 24 V$\overline{=}$ 13 A at 230 V$\sim$ Output power up to 2.5 kW at 230 V$\sim$	Features	Energy consumption in standby mode up to 1 W Energy parameters available in the app power supply voltage

Protection	Voltage protection threshold minimum — 6.5 V_{DC} maximum — 36.5 V_{DC} Temperature protection threshold over +65°C at the place of installation over +85°C inside Relay	Installation	Operating temperature from -20°C to +64°C Operating humidity up to 85% with no condensation Ingress protection IP20
Enclosure	Colour black Overall dimensions 39 × 33 × 18 mm Weight 25 g	Complete set	Relay Jeweller Double-sided tape Quick Start Guide