### **Pass**

## Encrypted contactless card for keypad

Cards sold in packs of 3, 10 or 100 devices

## Quick access to the security system

To disarm the security system, just present Pass to the reader on the keypad. This copy-protected card allows you to manage security modes without a password, user account and access to the Ajax app.

Pass is supported by **KeyPad Plus**.

### Top-tier data protection

To identify users quickly and securely, KeyPad Plus features the DESFire® technology. It is the best-in-class contactless solution to identify the user by card or key fob.

DESFire® is based on the ISO 14443 international standard and combines comprehensive 128-bit encryption and copy protection. This technology is also used in transportation systems of European capitals and access systems at NASA.

### More about DESFire advantages

#### Microchip with smart capabilities

From the user perspective, contactless access works simply. To disarm the system, all you need is to present a card or a key fob to the keypad. But there is an impressive technology behind this simplicity. Pass cards are equipped with DESFire® chips. We compared them to the chips used in most access systems around the world.

| Chip       | EM-Marin  | MIFARE® Classic®  | MIFARE® DESFire®  |
|------------|---|---|---|
| Use        | Use<br>Simple access systems:<br>barriers, intercoms, hotel<br>rooms. | Combined access<br>systems, where<br>additional information is<br>stored on the chip:<br>fitness clubs,<br>entertainment centers. | Systems with multi-level access in government, international and military institutions. |
| Encryption | No  | Crypto-1 stream cipher with a key size of 48 bits.  | Triple DES encryption<br>and AES hardware<br>encryption with 128-bit<br>key.            |

|        |                    | A number of studies have shown the possibility of hacking this cipher with tools that are freely available.        | It will take several<br>supercomputers and<br>millions of years to hack.  |
|--------|--------------------|--|---|
| Memory | No built-in memory | Up to 4 KB of built-in<br>memory, which allows<br>you to store data on<br>payment, card expiration<br>date, users. | Up to 8 KB built-in<br>memory that allows you<br>to store user data and<br>access keys to multiple<br>security systems. |

# One key for home and office

One Pass card can be connected to 13 hubs

# Full control in the app

In the app, you can set the name and access permissions for each card. You always know who and when changed the security mode — every action is recorded in the event log.

A system administrator can revoke or restrict Pass access permissions in real time.

## Effortless connection

To add Pass to the system, all you need is to open the Ajax app, go into the settings and present the card to the keypad.

# Tech specs

| Communication technology            | DESFire®                |
|-------------------------------------|-------------------------|
| Operating standard                  | ISO 14443-A (13,56 МГц) |
| Encryption                          | +                       |
| Authentication                      | +                       |
| Protection from signal interception | +                       |
| Possibility to assign the user      | +                       |
| Maximum number of bound hubs        | Up to 13                |
| Compatibility                       | KeyPad Plus             |
| Operating temperature range         | From -10°C to +40°C     |
| Operating humidity                  | Up to 75%               |
| Overall dimensions                  | 86 × 54 × 0.8 mm        |

| Weight | 6 a |
|--------|-----|
| Weight | 09  |