## 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 <sup>®</sup> Classic <sup>®</sup>  | MIFARE <sup>®</sup> DESFire <sup>®</sup>  |
|------------|---|---|---|
| Use        | Use<br>Simple access systems:<br>barriers, intercoms, hotel<br>rooms. | Combined access systems,<br>where additional information<br>is stored on the chip: fitness<br>clubs, entertainment centers.   | Systems with multi-level<br>access in government,<br>international and military<br>institutions.  |
| Encryption | No  | Crypto-1 stream cipher with a<br>key size of 48 bits.<br>A number of studies have shown<br>the possibility of hacking this<br>cipher with tools that are freely<br>available. | Triple DES encryption and<br>AES hardware encryption with<br>128-bit key.<br>It will take several<br>supercomputers and millions of<br>years to hack. |
| Memory     | No built-in memory  | Up to 4 KB of built-in memory,<br>which allows you to store<br>data on payment, card<br>expiration date, users.   | Up to 8 KB built-in memory<br>that allows you to store user<br>data and access keys to<br>multiple 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-А (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 g                     |  |