

# ReX 2 Jeweller

Radio signal range extender supporting photo verification.



An Ajax hub is required for device operation. Find the detailed information on the device at the link:

<https://ajax.systems/support/devices/rex-2>



2  
GRADE  
EN 50131

PD 6662  
2017

INCERT

NFA2P

UL®  
LISTED

## Key features

Two channels to transmit events and photos from connected devices to the hub: Ethernet and radio

Range extender firmware update over the air

Radio frequency hopping and transmitting all data via Ethernet in case of attempted jamming

Fast pairing with the security system using QR code

Transmitting photos taken with the detectors of the MotionCam lineup

Up to 38 hours of battery operation in case of a power outage

Enclosure protected with the tamper

Remote control and configuring via the Ajax apps

## Photo verification for large and complex facilities

The maximum radio communication range with connected devices is 1,700 meters in an open space. Up to 5 range extenders can be connected to an Ajax security system, allowing it to protect large-scale objects. Regardless of the number of devices connected to the range extender, alarms are delivered in 0.3 seconds. The first photo taken with the detector of the MotionCam lineup is delivered in 10 seconds (the exact time depends on system parameters).

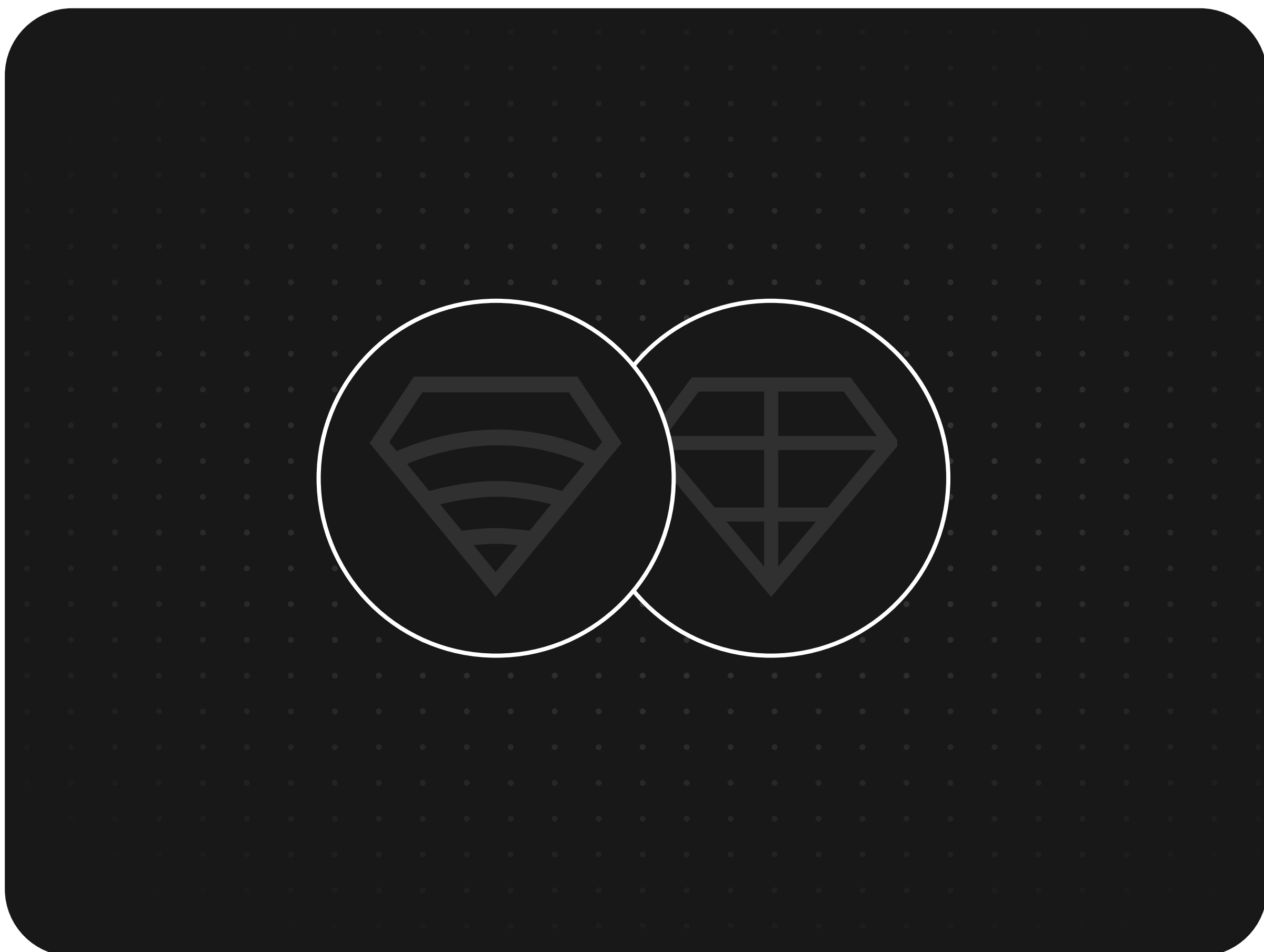


# Guaranteed delivery of alarms and photos

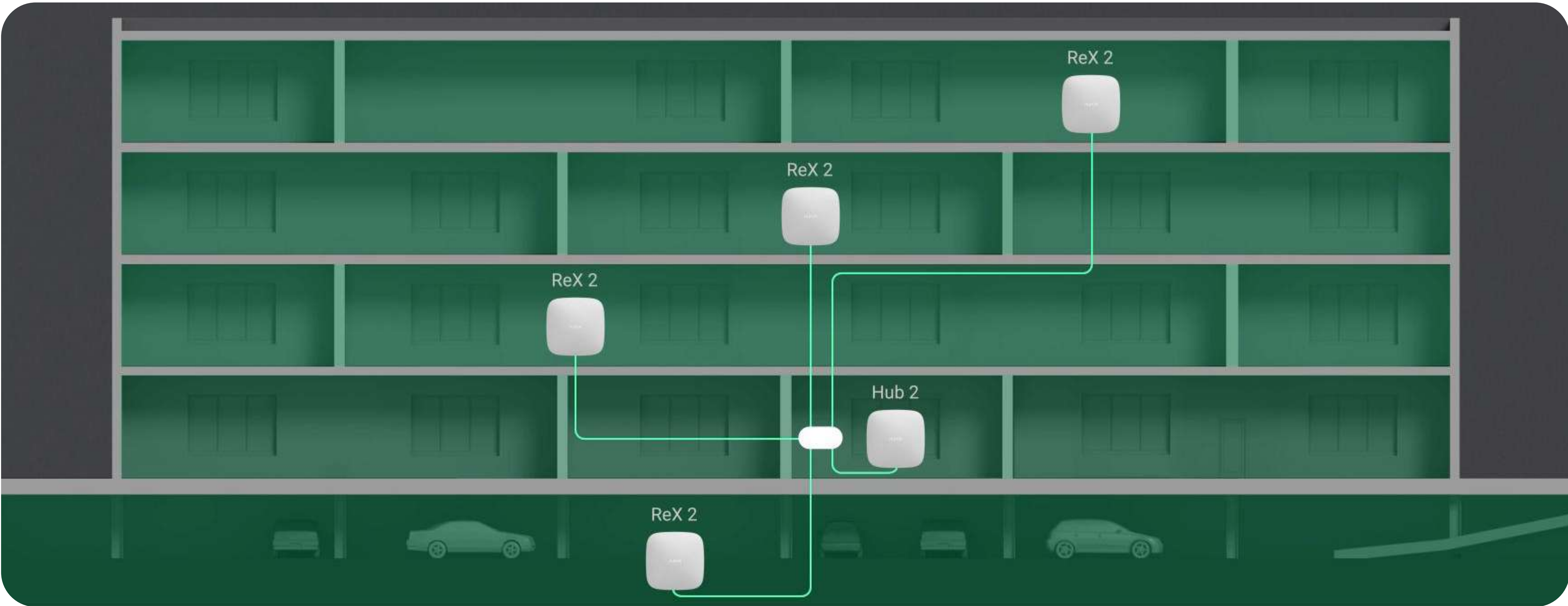
ReX 2 is equipped with four antennas and supports two radio protocols: **Jeweller** and **Wings**. The maximum radio communication range of each protocol is 1,700 meters in an open space.

**Jeweller** transmits commands, events and alarms. **Wings** provides packet transmission of images, even when the signal strength is unstable and the communication fails. This is possible due to the built-in algorithms for checking and uploading data packages.

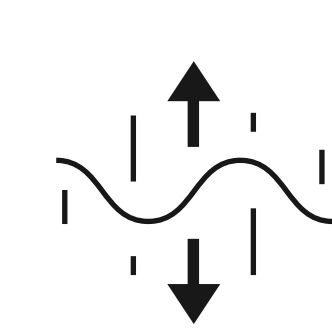
Ajax two-way radio communication uses frames to synchronize device communication sessions, authentication to prevent spoofing, and encryption to protect against data theft.

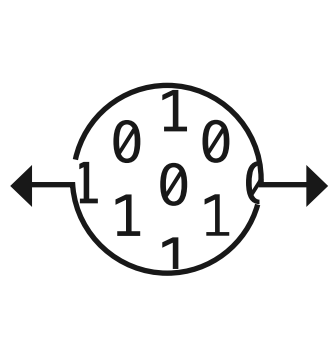


## Communication through steel and concrete



ReX 2 with **OS Malevich 2.13** firmware transmits data to the hub via radio and Ethernet cable. The cable can be used as the only or additional communication channel. The hub and the range extender must be connected to the same network through a router for that. An Ajax security system does not limit the length of the cable. Thus, one system can cover such an object as an office center with underground parking, a metal sectional hangar or a warehouse complex of several buildings.

 Automatic switching between the channels in case of connection loss with one of them

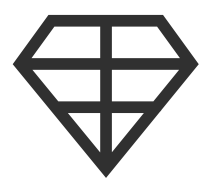
 Data transmission protected by encryption

# Quick installation

Connecting and configuring ReX 2 is a hassle-free process which saves the installer time. To add the range extender to the system, scan the QR code using an Ajax app, then assign a name and a room to the device. And if necessary, the range extender can be turned off or reconfigured remotely, without visiting the facility.



# Technical specifications

|                           |  |                                                                                                                                                                                                                                                                                                                       |                   |  |                                                                                                                                                                                                                                 |
|---------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Compliance with standards |  | EN 50131 (Grade 2)<br>PD 6662:2017<br>INCERT<br>NFA2P<br>UL1023, UL2610<br>ULC S304                                                                                                                                                                                                                                   | Compatibility     |  | <b>Hubs</b><br>Hub 2 (2G)<br>Hub 2 (4G)<br>Hub 2 Plus<br>Hub Hybrid (2G)<br>Hub Hybrid (4G)<br><br><b>Devices</b><br>All Ajax wireless devices<br><br><b>Range extenders</b><br>ReX 2 does not connect to other range extenders |
| Communication channels    |  |  <b>Jeweller communication technology</b><br><br> <b>Wings communication technology</b><br><br><b>Ethernet</b><br>8P8C socket<br>Up to 100 Mb/s | Data transmission |  | <b>Alarm delivery speed</b><br>0.3 s<br><br><b>Photo delivery speed via Wings</b><br>up to 18 s<br>Depends on system parameters<br><br><b>Photo delivery speed via Ethernet</b><br>up to 10 s<br>Depends on system parameters   |

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |              |                                                                                                                                                                                                                            |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Communication channels | <p><b>Radio frequency bands</b><br/>866.0–866.5 MHz<br/>868.0–868.6 MHz<br/>868.7–869.2 MHz<br/>905.0–926.5 MHz<br/>915.85–926.5 MHz<br/>921.0–922.0 MHz<br/>Depends on the sales region</p> <p><b>Maximum effective radiated power (ERP)</b><br/>≤ 20 mW</p> <p><b>Radio communication range</b><br/>up to 1,700 m<br/>In an open space</p> <p><b>Polling interval</b><br/>12–300 s<br/>Adjusted by PRO or user with admin rights in the Ajax apps</p> <p><b>Protection against spoofing</b><br/>Device authentication</p> <p><b>Protection against jamming</b><br/>Radio frequency hopping<br/>Automatic switching the communication channel in case of connection loss</p> | Power supply | <p><b>Main power supply</b><br/>100–240 V, 50/60 Hz</p> <p><b>Backup power supply</b><br/>Li-Ion with 2 A·h capacity<br/>Up to 38 hours when not connected via Ethernet<br/>Up to 12 hours when connected via Ethernet</p> |
| Installation           | <p><b>Operating temperature range</b><br/>from -10°C to +40°C</p> <p><b>Operating humidity</b><br/>up to 75%</p> <p><b>Protection class</b><br/>IP20</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Enclosure    | <p><b>Colour</b><br/>white, black</p> <p><b>Dimensions</b><br/>163 × 163 × 36 mm</p> <p><b>Weight</b><br/>410 g</p>                                                                                                        |

|              |                                                                                                                                                                    |           |                     |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------|
| Complete set | ReX 2 Jeweller<br>SmartBracket mounting panel<br>Power supply cable<br>Screw terminal block<br>Adapter*<br>Ethernet cable<br>Installation kit<br>Quick start guide | Enclosure | <b>Tamper alarm</b> |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------|

\*Only for INCERT compliance.