# EN54 Fire ReX Jeweller

Wireless addressable radio signal range extender for a fire alarm system, supporting intrusion protection devices

EN 54-4 · EN 54-18 · EN 54-25 · 2 GRADE EN 50131



## More flexibility for professional installations

EN54 Fire ReX Jeweller expands the range of a wireless network and delivers a stable connection for EN54 Line devices across a large or complex facility. The range extender connects to the control and indicating equipment (CIE) wirelessly or via Ethernet, delivering reliable communication through steel and concrete. Up to 5 range extenders can operate within one Ajax system, and each supports any combination of devices for fire safety, automation, and intrusion protection. Mix devices within the CIE's limit to leverage the benefits of the integrated system, including visual verification of alarms.

## Key features

- Up to 1,800 m wireless communication range in open space
- Up to 5 range extenders per system to expand coverage up to 35 km²
- EN 54-21 compliant event transmission
- Remote setup and management via Ajax apps
- Support for fire safety, intrusion protection, and automation devices
- Ethernet connection with the CIE to overcome radio signal interference

## Guaranteed delivery of alarms

EN54 Fire ReX Jeweller uses secure two-way radio communication based on **Jeweller** and **Wings** proprietary protocols. Such a connection provides block encryption and device authentication during each communication session between Ajax CIE and connected devices to prevent sabotage, spoofing, or data theft. Alarm transmission complies with the EN 54-21 standard.

### Jeweller communication protocol

Transmits the real-time device status, alarms, events, and all measured readings to the Ajax apps.

### Wings communication protocol

Transfers visuals and large data packets, such as photos from MotionCam detectors for alarm verification and firmware updates.

### Visual verification of alarms

EN54 Fire ReX Jeweller works with MotionCam and MotionCam Outdoor detectors. When triggered, they take a series of animated pictures, helping to assess the situation at the facility. Combined with automation scenarios, the devices allow for visual verification of fire alarms and other system events.

### Radio communication through walls and floors

EN54 Fire ReX Jeweller connects to the CIE not only wirelessly but also via Ethernet, using it as the only or prioritized communication channel. A single Ajax system can cover an office center with underground parking, metal hangar, multi-building warehouse, or similar facilities.

# Hassle-free installation and maintenance

- Adding to a CIE by scanning the QR code — no tools or programming required
- Configuration and testing in Ajax apps
- Dedicated field to specify the exact device location
- SmartBracket mounting panel for easy installation without disassembling the device enclosure
- Tool-free battery replacement
- Remote reconfiguration for fewer on-site visits

## Compliance with standards

EN 54-4
EN 54-18
EN 54-25
EN 50131 (Grade 2)

## Compatibility with a CIE

**For detailed information, scan the QR code or follow the link:**

ajax.systems/tools/devices-compatibility/?models=FRX.54.J

## Data transmission

**Alarm delivery speed**
0.3 s

**Photo delivery speed via Wings**
up to 18 s
Depends on system parameters

**Photo delivery speed via Ethernet**
up to 10 s
Depends on system parameters

## Communication with a CIE and devices

**Jeweller communication technology**

**Wings communication technology**

**Ethernet**
8P8C socket
Up to 100 Mb/s

**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 sales region

**Maximum effective radiated power (ERP)**
up to 20 mW

**Communication range**
up to 1,800 m
In open space

**Polling interval**
12–300 s
Adjusted by a PRO or user with admin rights via Ajax apps

**Protection against spoofing**
Device authentication

**Protection against jamming**
Radio frequency hopping
Automatic switching of the communication channels in case of connection loss

## Power supply

**Main power supply**
110–240 V, 50/60 Hz

**Backup power supply**

EN54 Internal Battery (24h)
- Li-ion battery
- 7.4 V, 5 Ah
- Up to 24 hours of operation

EN54 Internal Battery (72h)
- Li-ion battery
- 7.4 V, 10 Ah
- Up to 72 hours of operation

## Installation

**Operating temperature range**
from –10 °C to +40 °C

**Operating humidity**
up to 75% non-condensing

## Enclosure

**Color**
black, white

**Dimensions**
210 × 210 × 50.5 mm

**Weight**
TBD

**Protection class**
IP20

## Complete set

EN54 Fire ReX Jeweller
SmartBracket mounting panel
Installation kit
Special tool (key)
Quick start guide

For detailed information, scan the QR code or follow the link:

**ajax.systems/support/devices/en54-fire-rex-jeweller/**

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@AjaxSystemsSupport_Bot
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