

## EN54 Fire ReX Jeweller

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



### 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 km<sup>2</sup>

EN 54-21 compliant event transmission

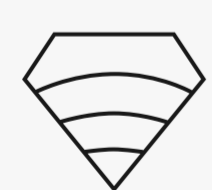
Remote setup and management via Ajax apps

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.



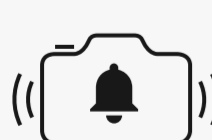
#### Jeweller communication protocol

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.



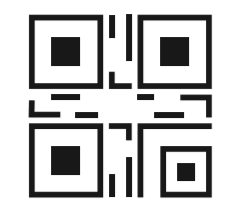
#### Visual verification of alarms

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

|   |   |   |  |   |  |   |  |  |   |   |  |  |   |  |  |
|---|---|---|--|---|--|---|--|--|---|---|--|--|---|--|--|
| <p><b>Compliance with standards</b></p> <p>EN 54-4<br/>EN 54-18<br/>EN 54-25<br/>EN 50131 (Grade 2)</p>   | <p><b>Compatibility with a CIE</b></p> <p>For detailed information, scan the QR code or follow the link:</p>  <p><a href="https://ajax.systems/tools/devices-compatibility/?models=FRX.54.J">ajax.systems/tools/devices-compatibility/?models=FRX.54.J</a></p> | <p><b>Data transmission</b></p> <p><b>Alarm delivery speed</b><br/>0.3 s</p> <p><b>Photo delivery speed via Wings</b><br/>up to 18 s<br/>Depends on system parameters</p> <p><b>Photo delivery speed via Ethernet</b><br/>up to 10 s<br/>Depends on system parameters</p> |  |   |  |   |  |  |   |   |  |  |   |  |  |
| <p><b>Communication with a CIE and devices</b></p> <table border="0"> <tr> <td data-bbox="128 1110 741 1210"> <p><b>Jeweller communication technology</b></p> </td> <td data-bbox="741 1110 1354 1210"> <p><b>Maximum effective radiated power (ERP)</b><br/>up to 20 mW</p> </td> <td colspan="2" data-bbox="1354 1110 1976 1210"> <p><b>Protection against spoofing</b><br/>Device authentication</p> </td> </tr> <tr> <td data-bbox="128 1210 741 1389"> <p><b>Wings communication technology</b></p> <p><b>Ethernet</b><br/>8P8C socket<br/>Up to 100 Mb/s</p> </td> <td data-bbox="741 1210 1354 1389"> <p><b>Communication range</b><br/>up to 1,800 m<br/>In open space</p> </td> <td colspan="2" data-bbox="1354 1210 1976 1389"> <p><b>Protection against jamming</b><br/>Radio frequency hopping<br/>Automatic switching of the communication channels in case of connection loss</p> </td> </tr> <tr> <td data-bbox="128 1389 741 1700"> <p><b>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> </td> <td data-bbox="741 1389 1354 1700"> <p><b>Polling interval</b><br/>12–300 s<br/>Adjusted by a PRO or user<br/>with admin rights via Ajax apps</p> </td> <td colspan="2"></td> </tr> </table> |   |   |  | <p><b>Jeweller communication technology</b></p> | <p><b>Maximum effective radiated power (ERP)</b><br/>up to 20 mW</p> | <p><b>Protection against spoofing</b><br/>Device authentication</p> |  | <p><b>Wings communication technology</b></p> <p><b>Ethernet</b><br/>8P8C socket<br/>Up to 100 Mb/s</p> | <p><b>Communication range</b><br/>up to 1,800 m<br/>In open space</p> | <p><b>Protection against jamming</b><br/>Radio frequency hopping<br/>Automatic switching of the communication channels in case of connection loss</p> |  | <p><b>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>Polling interval</b><br/>12–300 s<br/>Adjusted by a PRO or user<br/>with admin rights via Ajax apps</p> |  |  |
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| <p><b>Power supply</b></p> <p><b>Main power supply</b><br/>110–240 V, 50/60 Hz</p> <p><b>Backup power supply</b></p> <p>EN54 Internal Battery (24h)</p> <ul style="list-style-type: none"> <li>• Li-ion battery</li> <li>• 7.4 V, 5 Ah</li> <li>• Up to 24 hours of operation</li> </ul> <p>EN54 Internal Battery (72h)</p> <ul style="list-style-type: none"> <li>• Li-ion battery</li> <li>• 7.4 V, 10 Ah</li> <li>• Up to 72 hours of operation</li> </ul>   | <p><b>Installation</b></p> <p><b>Operating temperature range</b><br/>from –10 °C to +40 °C</p> <p><b>Operating humidity</b><br/>up to 75% non-condensing</p>  | <p><b>Enclosure</b></p> <p><b>Color</b><br/>black, white</p> <p><b>Dimensions</b><br/>210 × 210 × 50.5 mm</p> <p><b>Weight</b><br/>TBD</p> <p><b>Protection class</b><br/>IP20</p>  | <p><b>Complete set</b></p> <p>EN54 Fire ReX Jeweller<br/>SmartBracket mounting panel<br/>Installation kit<br/>Special tool (key)<br/>Quick start guide</p> |   |  |   |  |  |   |   |  |  |   |  |  |



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

[ajax.systems/support/devices/en54-fire-rex-jeweller/](https://ajax.systems/support/devices/en54-fire-rex-jeweller/)

- ✉ support@ajax.systems
- 📍 @AjaxSystemsSupport\_Bot
- 🌐 ajax.systems