

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 km²

EN 54-21 compliant event transmission

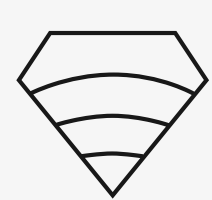
Remote setup and management via Ajax apps

Support for fire safety, intrusion protection, and automation devices

Ethernet connection with the CIE to overcome radio signal interference

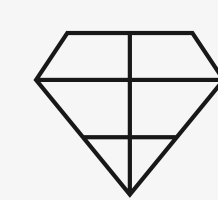
Guaranteed delivery of alarms

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.



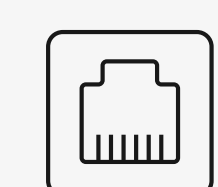
Wings communication protocol

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.

Immune to lags, freezes, and viruses with OS Malevich

The range extender runs on OS Malevich, a real-time operating system developed by Ajax Systems. It is resistant to viruses and cyberattacks, delivering exceptional reliability. Automatic updates arrive within minutes, enhancing performance, adding new features, and keeping the system up-to-date for years.

- Near-instant response: actions executed in under 1 second from app interaction
 - Automatic over-the-air updates for the range extender and connected devices
- All automation scenarios run within the same sub-second timeframe
 - Performance improvement and new features with each update

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) SBSC DBI BOSEC	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 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 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 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 –10 °C to +40 °C Operating humidity up to 75% non-condensing	Enclosure Color black, white Dimensions 210 × 210 × 50.5 mm Weight 890 g 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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