

RF Sensors – Precautions for Product Installation and Operation



Preamble:

Thank you for choosing Hytronik RF microwave motion sensors. These products combine motion detection and RF (radio frequency) wireless transmission to enable group communication between multiple sensors.

To ensure stable communication, accurate detection, and long-term reliability, please carefully read and follow the precautions below before installation and commissioning.

1. Operating Principle

This is a combination of motion sensor and RF radio wave wireless transmission, meaning that the motion detected by one sensor (master unit) can pass on to other pre-dened sensor units (slave unit) through RF signal transmission.

2. RF Signal Interference

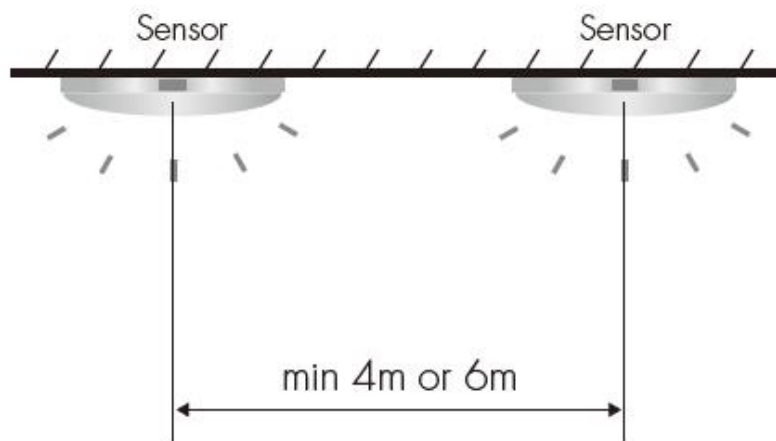
The RF signal may be influenced by metal objects and other wireless devices (e.g., GSM antennas, strong Wi-Fi routers, high-voltage cables emitting electromagnetic radiation).Such interference can weaken RF communication or cause transmission failure.Recommendation: Always perform a field test to verify the site environment before mass installation.

3. Installation Distance Between Luminaires

When luminaires with RF microwave motion sensors are installed too close to each other, microwave and RF waves may interfere, resulting in:

- False triggering,
- Transmission/reception failure,
- Or sensors failing to switch off properly.

To prevent such issues, ensure a minimum spacing of 4 – 6 meters between RF microwave motion sensors.



4. Large-Scale Installations

In large and complex environments (e.g., warehouses with hundreds of luminaires), RF transmission may be weakened by metal structures, wireless devices, or obstacles such as concrete walls.

To ensure consistent communication and better user experience:

- Add more slave units to strengthen RF coverage,
- Test the network stability after installation.

HYTRONIK INTERNATIONAL

Hytronik UK:

Unit 3 Tallow Way, Fairhills Industrial Estate, Irlam, Manchester, M44 6RJ, United Kingdom
E-mail: info@hytronik.com

Hytronik DACH:

Heinrich-Hertz-Straße 15 / 65582 Diez. Germany
E-mail: support_dach@hytronik.com

Hytronik Iberia & Latam:

Carrer del Moro Zeid, 11, Piso 3, Ciutat Vella, 46001 Valencia
E-mail: support_dach@hytronik.com

Hytronik SVK & CZE:

Techlum s.r.o (Slovakia, Slovenia) Staré Grunty 7A 841 04 Bratislava
E-mail: info@techlum.sk

Hytronik Asia:

Pude Industrial Park, Dushi Village, Pingtan Town, Huiyang District, Huizhou City 516259
E-mail: info@hytronik.com

