



Lora PIR Sensor

Long-Range Rodent Detection Sensor

Product Overview

The **Bastet LoRa PIR Sensor (Model LOPIRST01-LORA01)** is engineered for large-scale or challenging environments where long-distance, low-power connectivity is critical. This sensor uses Passive Infrared (PIR) technology to detect the presence and movement of rodents up to 8m away. It leverages the LoRaWAN protocol to transmit detection data to the central LoRa gateway over extremely long ranges, minimizing infrastructure costs. The integrated light sensor adds contextual data, linking movement events to environmental conditions (Bright/Dark).

Key Features

- **LoRaWAN Connectivity:** Provides ultra-wide-distance wireless transmission, ideal for large industrial facilities, remote sites, or multi-floor buildings.
- **Rodent-Optimized PIR:** Detects motion over an 8m range with a 120° horizontal detection area, tailored for small animal movement.
- **Extended Battery Life:** Designed for efficiency, offering approximately 4 years of operation on a single primary battery, significantly reducing maintenance.
- **Ambient Light Sensing:** Built-in light sensor allows data analysis to correlate rodent activity with light conditions (e.g., exclusively nocturnal movement).
- **Secure Installation:** Features NFC for one-touch configuration and is designed for easy, versatile placement in all required zones.

Technical Specifications

Parameter	Specification
Product Name	Long-Range PIR Sensor
Model Code	LOPIRST01-LORA01
Communication Protocol	LoRaWAN, LoRa D2D
Antenna	1× Built-in Internal Antenna
PIR Detection Distance	Maximum 8m
PIR Detection Area	120° Horizontal, 100° Vertical
Light Sensor	Bright/Dark Status (Customizable Threshold)
Power Source	1 × 1650mAh ER14335 Li-SOCl ₂ Battery
Estimated Battery Life	≈ 4 Years (30 min interval + 30 triggers/day)
Operating Temperature	−20°C to +60°C
Ingress Protection	IP30
Certification	CE, RoHS
Warranty	12 Months