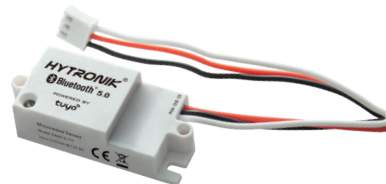


Product Description

SAM12/TY is a Bluetooth sensor head only with 12VDC input and 5V 1kHz PWM / 0-10V output, it's ready to be integrated into a third-party LED driver, no control base needed. It is suitable for bulkhead, tri-proof, LED panel, linear, pendant, high-bay. Meanwhile, all commissioning and settings can be done via  smart.



Features

 Use Tuya smart for commissioning



Grouping luminaires via mesh network



5V 1kHz PWM / 0-10V output



Tri-level dimming control based upon occupancy (also known as corridor function)



Robust HF antenna design wireless interference



Device firmware update over-the-air



5-year warranty



Free smartphone App for
set-up and commissioning

Technical Specifications

Bluetooth Transceiver

Operation frequency	2.4 GHz - 2.483 GHz
Transmission power	Max 4dBm
Range (Typical)	10~30m

Sensor Data

Operation frequency	5.8 GHz +/- 75MHz
Transmitting power	<0.2mW
Detection range*	Max installation height: 6m Max detection range (Ø): 12m
Detection angle	30° ~ 150°

Input & Output Characteristics

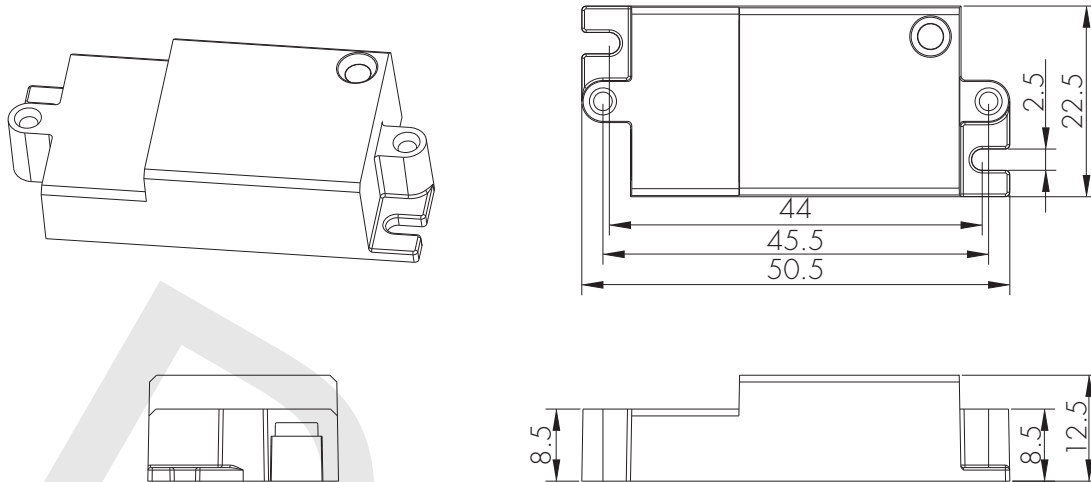
Input	12VDC
Output	5V 1kHz PWM / 0-10V output
Stand-by power	<0.3W

Environment

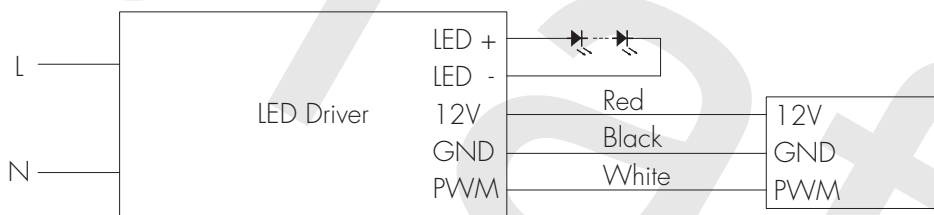
Operation temperature	Ta: -20°C ~ +60°C
IP rating	IP20

* The detection range is heavily influenced by sensor placement (angle) and different walking paces.
It may be reduced under certain conditions.

Mechanical Structure & Dimensions



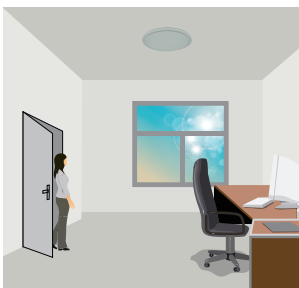
Wiring Diagram



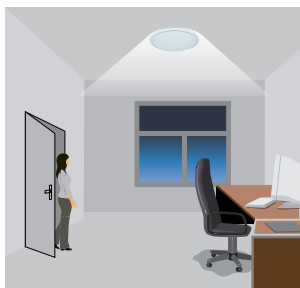
Functions and Features

1 Tri-level Control (Corridor Function)

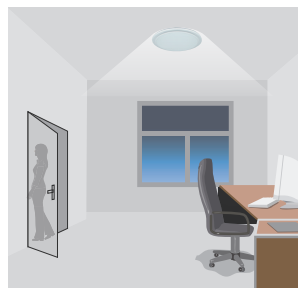
Hytronik builds this function inside the motion sensor to achieve tri-level control, for some areas which require a light change notice before switch-off. The sensor offers 3 levels of light: 100%-->dimmed light (natural light is insufficient) -->off; and 2 periods of selectable waiting time: full light duration and microlight duration; Selectable daylight threshold and freedom of detection area.



With sufficient natural light, the light does not switch on when presence is detected.



With insufficient natural light, the sensor switches on the light automatically when presence is detected.



After full light duration, the light dims to micro brightness if the surrounding natural light is below the daylight threshold.



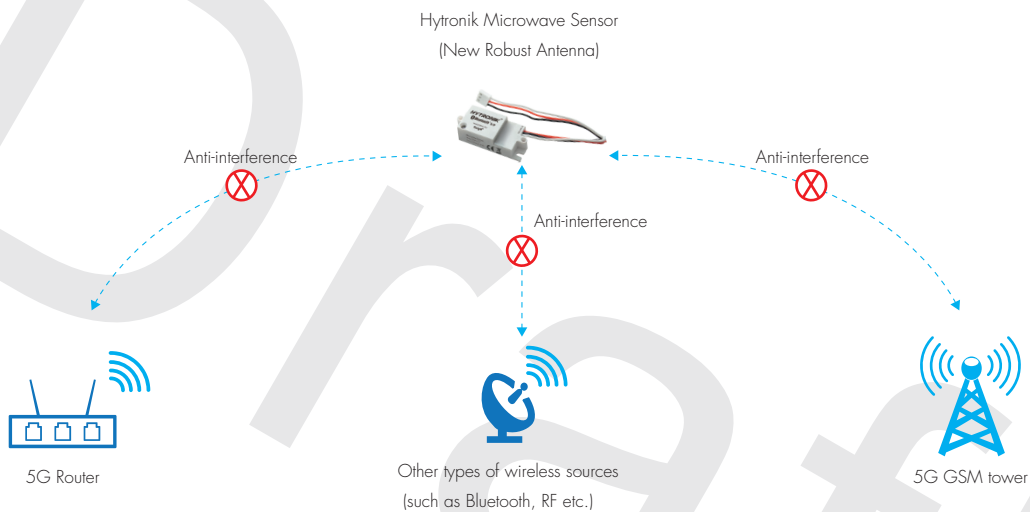
Light switches off automatically after the microlight duration elapses.

1 Robust HF Sensors Design – Anti-interference Technology



Hytronik's microwave motion sensor uses 5.8GHz high frequency (HF) antenna in the product design. With the increasing density of wireless environments such as 5G GSM tower and 5G Wi-Fi coverage, this has created extra challenges for sensor's operation because the air is shared by all kinds of wireless signals, and transmissions from any device at the similar frequency could potentially cause interference. The effects of interference which can be noticed by users are usually false triggering of sensors (turning on/off erratically), or lights staying on even after hold time etc.

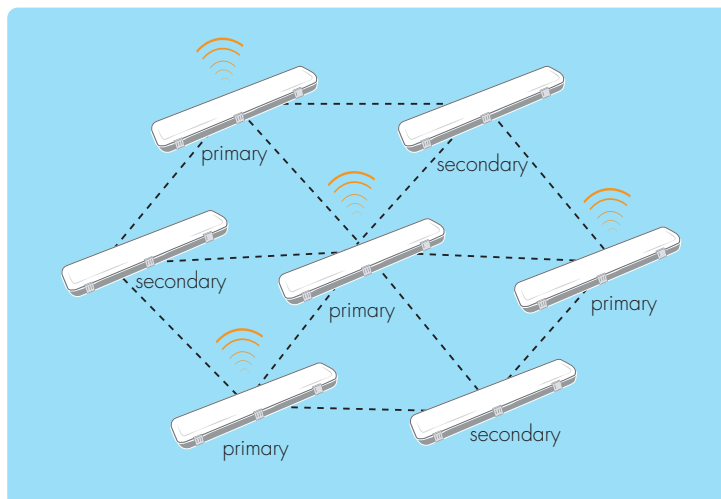
To get around such tough environment, Hytronik has developed a new series of robust HF modules, designed to be loaded with our own special sophisticated software algorithms. These robust HF modules can withstand different types of wireless interferences in the real application. We believe this is the ultimate solution towards demanding installation environments in the future.

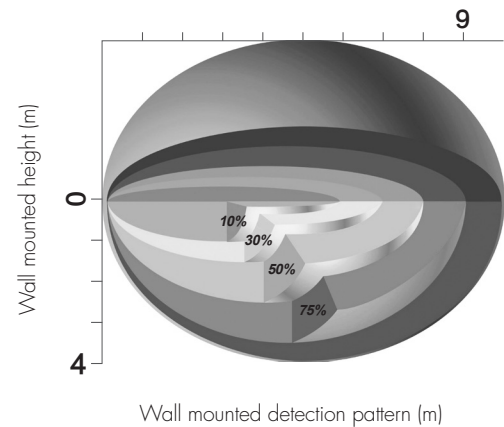
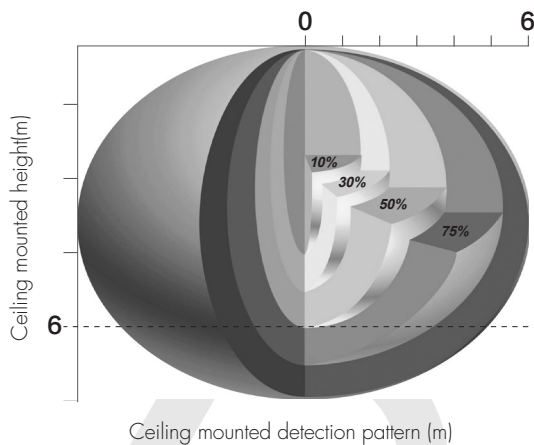


2 Grouping luminaires via mesh network

1. Grouping the primary tri-proof light with the secondary tri-proof light with APP setting.
2. When the primary tri-proof light receives Bluetooth signal, it transmits to the the secondary tri-proof light so the tri-proof lights switch on at the same time.

*All the settings can be finished on the APP.





Additional Information / Documents

1. Regarding precautions for Bluetooth product installation and operation, please kindly refer to www.hytronik.com/download/knowledge ->Bluetooth Products - Precautions for Product Installation and Operation
2. Data sheet is subject to change without notice. Please always refer to the most recent release on [www.hytronik.com/products/Bluetooth 5.0 SIG mesh system](http://www.hytronik.com/products/Bluetooth_5.0_SIG_mesh_system) ->Partnership
3. Regarding Hytronik standard guarantee policy, please refer to www.hytronik.com/download ->knowledge ->Hytronik Standard Guarantee Policy

