SAM12

HYTRONIK ®

Product Description

SAM12 is a sensor head only with 12VDC input and 5V 1kHz PWM 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-light.
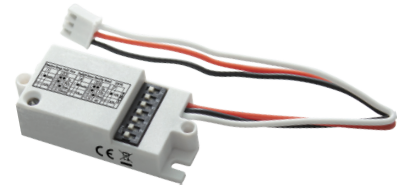
Hardware Features

- 5V 1kHz PWM output
- Tri-level dimming control based upon occupancy (also known as corridor function)
- Robust HF antenna design wireless interference
- 5-year warranty

Technical Specifications

Input & Output Characteristics	
Input	12VDC
Output	5V 1kHz PWM
Stand-by power	<0.3W
Sensitivity	50% / 100%
Hold-time	5s / 90S / 180s / 10min
Stand-by time	0s / 10s / 10min / +∞
Stand-by dim level	10% / 30%
Daylight sensor	10lux, disable

| Sensor Data	
Operation frequency	5.8 GHz +/- 75MHz
Transmitting power	<0.2mW
Detection range*	Max installation height：6m Max detection range (∅)：10m
Detection angle	30° ~ 150°

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
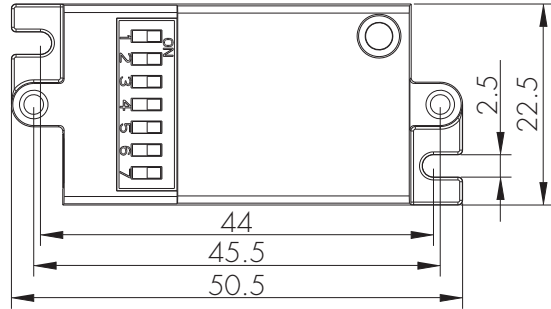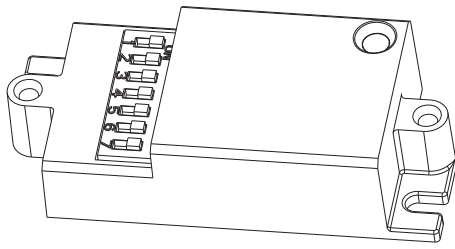

Wiring Diagram
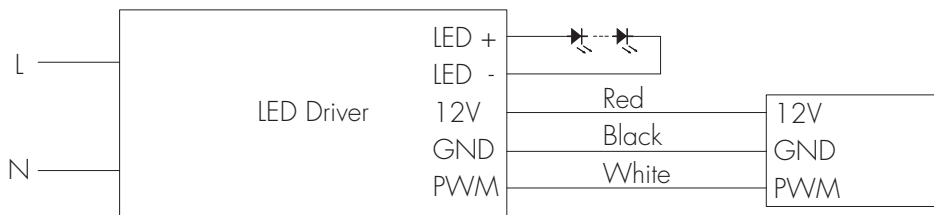
Functions and Features

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: motion hold-time and stand-by period; Selectable daylight threshold and freedom of detection area.
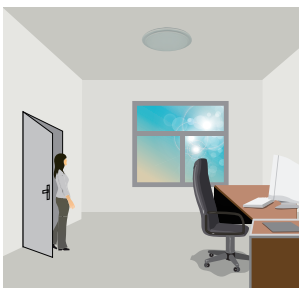
With sufficient natural light, the light does not switch on when presence is detected.
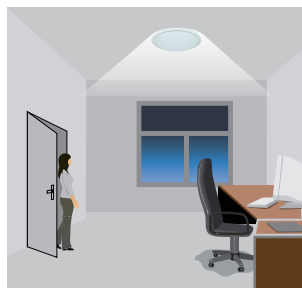
With insufficient natural light, the sensor switches on the light automatically when presence is detected.
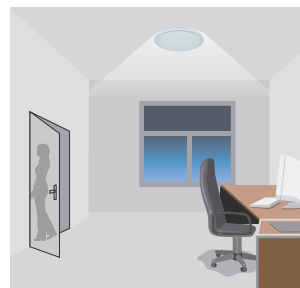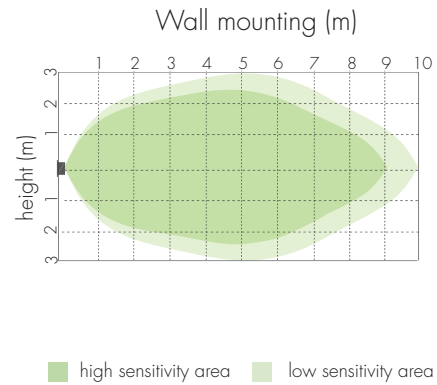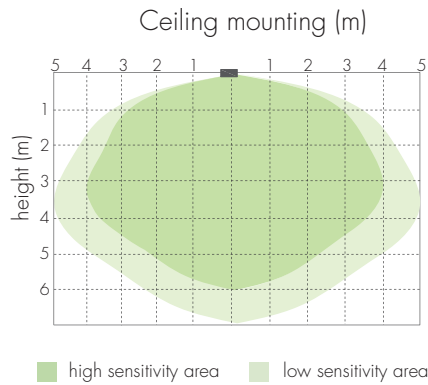
After hold-time, the light dims to stand-by level if the surrounding natural light is below the daylight threshold.

Light switches off automatically after the stand-by period elapses.

Detection Pattern

Ceiling mounting (m)

■ high sensitivity area   ▢ low sensitivity area

Wall mounting (m)

■ high sensitivity area   ▢ low sensitivity area

DIP Switch Settings

1 Sensitivity

Sensitivity can be adjusted by selecting the combinationon the DIP switches for different applications.

	1	
I	●	100%
II	○	50%

I – 100%
II – 50%

2 Hold-time

Hold-time refers to the time period that the light remains100% on if no more movement is detected.

	2	3	
I	●	●	5s
II	●	○	90s
III	○	○	180s
IV	○	●	10min

I – 5s
II – 90s
III – 180S
IV – 10min

3 Daylight threshold

Different daylight threshold can be preset on DIP switches. Light will always turn on upon movement if daylight sensor is disabled.

	4	
I	●	Disable
II	○	10lux

I – Disable
II – 10Lux

4 Stand-by time

This is the time period that the light remains at a low level before it is completely turned off.

	5	6	
I	●	●	0s
II	●	○	10s
III	○	●	10min
IV	○	○	+∞

I – 0s
II – 10s
III – 10min
IV – +∞

5 Stand-by dimming level

Light can be dimmed to different levels after hold-time.

	7	
I	●	10%
II	○	30%

I – 10%
II – 30%

Additional Information / Documents

1. Regarding precautions for microwave sensor installation and operation, please kindly refer to
   www.hytronik.com/download ->knowledge ->Microwave Sensors - Precautions for Product Installation and Operation

2. Regarding Hytronik standard guarantee policy, please refer to
   www.hytronik.com/download ->knowledge ->Hytronik Standard Guarantee Policy