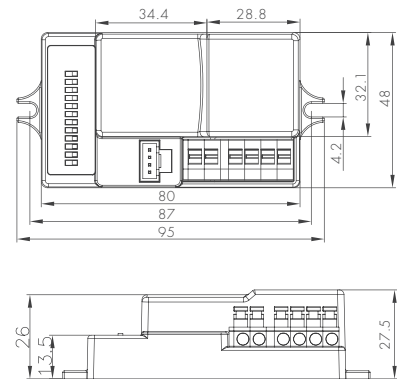
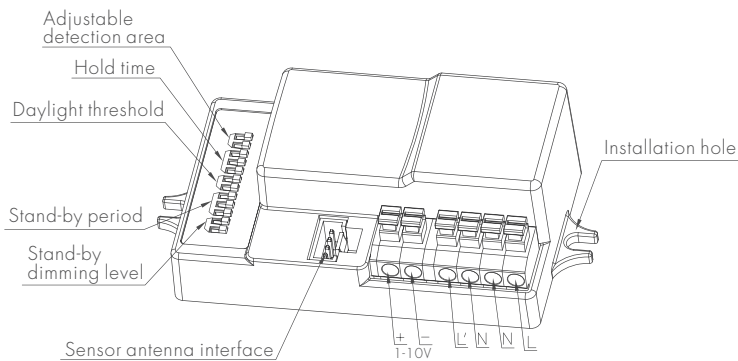


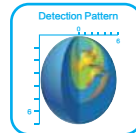
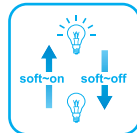
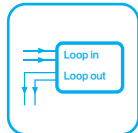
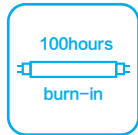
# Detached Version 1-10V Dimming Control

Model: HC403V-KD



Model: HC403V-KD

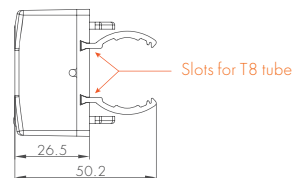
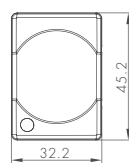
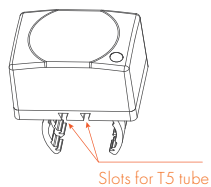
Mechanical structure (mm)



To meet different requirements of various application, there are 2 types of separate sensor antenna module to choose from:

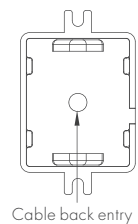
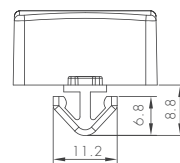
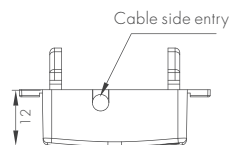
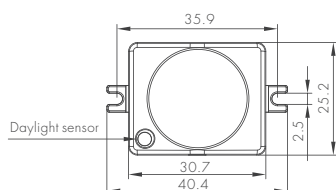
## Model SAM3

Flat sensor antenna, with plastic fingers to hook on T5/T8 tubes



## Model SAM4

Super-compact sensor antenna, with optional cable entry (side entry and back entry)



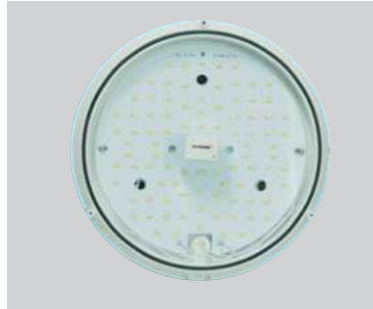
This sensor is particularly designed for below applications:

1. LED panel light, where the space is limited and ordinary sensors are too big and too high, easily cast shadow in the shade.
2. Office light where most of the luvres are aluminium, impossible for microwave sensors to go through. Sensor head SAM3 has 2 fingers to grip T5 or T8 tube.
3. 2D bulkhead, where the space between the tube is too narrow for the complete sensor.



For linear T5, T8, TC-L lamps

Most of the linear office light have metal louvre, where microwave cannot penetrate through. An easy alternative solution is to use this detached sensor antenna head, grip on the T5 and T8 tube, and put the sensor main body behind the metal louvre, together with the ballast or driver.



For LED bulkhead



For 2D 28/38W lamps

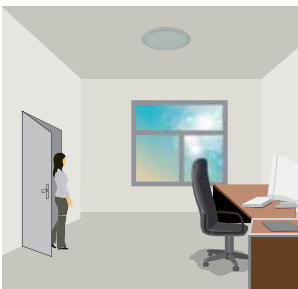
This sensor is particularly designed for light fittings where the space is very limited for a big sensor, for instance, on the LED panel bulkhead, and 2D lamp. In such applications, only the detached small antenna is needed on the outer surface, while the sensor body and the driver/ballast can be hidden behind the panel.

## Functions and Options

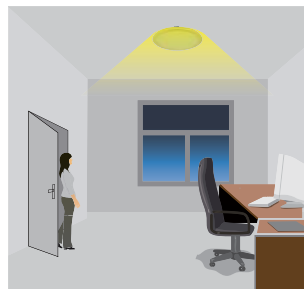
### 1 Tri-level Control (Corridor Function)

Same as Tridonic Excel ballast, Hytronik builds this function inside the motion sensor to achieve tri-level control, for some areas that require a light change notice before switch-off.

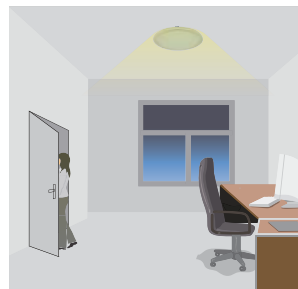
It offers 3 levels of light: 100%-->dimmed light ( 10%, 20%, 30%, 50% optional)-->off; And 2 periods of selectable waiting time: Motion holdtime and stand-by period; selectable daylight threshold and freedom of detection area.



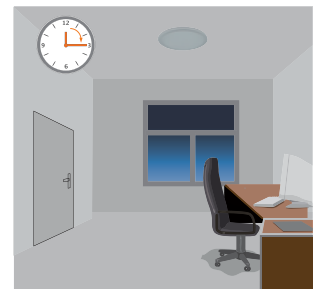
With sufficient natural light, the light does not switch on when presence detected.



With insufficient natural light, the sensor switches on the light automatically when person enters the room. The lamp never switch off with presence, even the natural light is sufficient.



People left, light dims to 10%/20%/30%/50% (options) standby level after the hold time.



Light switches off automatically after the standy period elapsed.

### 2 100H burn-in mode for fluorescent lamp

With simple operation, rapidly turn off/on the fixture 3 cycles within 3 sec. (the green LED on the sensor flashes and the fixture blinks 3 times to indicate the success of setup), lamp will be 100% on for 100 hours, and then automatically goes to sensor mode after 100 hours. This is crucial to secure the lifetime of fluorescent lamp, when new fixture is installed, or old lamp is replaced.

This 100H burn-in feature can be cancelled by turning off/on the fixture 1 cycle within 1sec.

### 3 Zero-cross relay operation

Designed in the software, sensor switches on/off the load right at the zero-cross point, to ensure the in-rush current is minimised, enabling the maximum life-time of the relay.

### 4 Loop-in and loop-out terminal

Double L N terminal makes it easy for wire loop-in and loop-out, saves the cost of terminal block and assembly time.

### 5 Ambient daylight threshold

With simple operation, rapidly turn off/on the fixture 2 cycles within 2 sec:

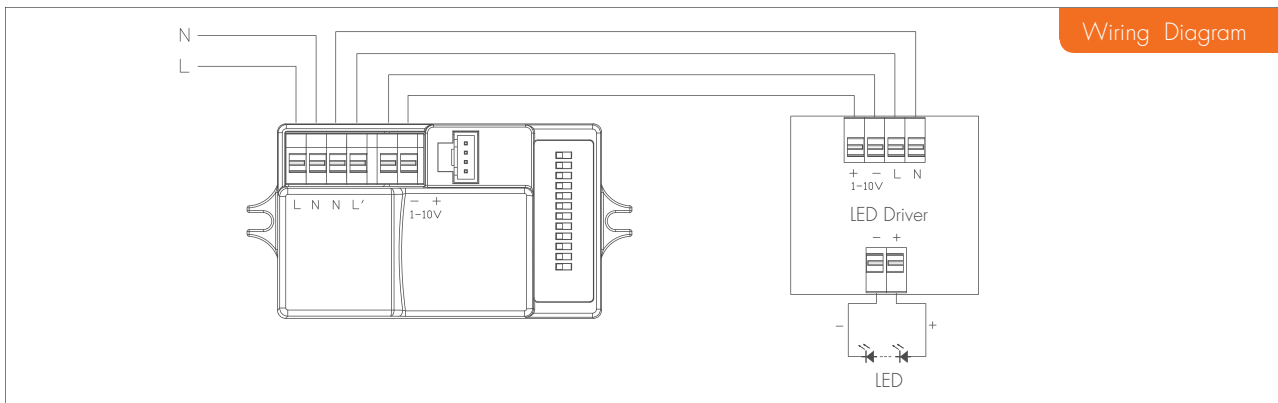
1. The green LED on the sensor flashes slowly for 5 seconds, meanwhile the fixture blinks twice.
2. The photodiode measures and remembers the surrounding lux for 1 sec.
3. The fixture and green LED will remain on for 10s to indicate successful learning.

This feature enables the fixture to sample luminance at any time to set lux threshold level.

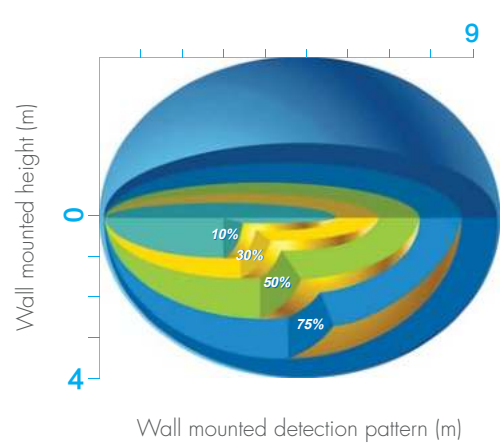
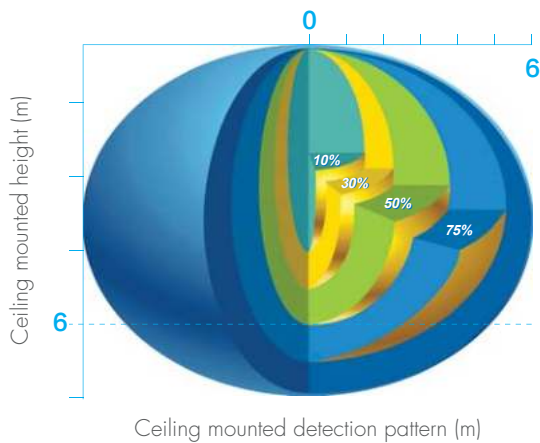
The latest surrounding lux value overwrites previous lux value learned.

Both the settings on DIP switch and the learned ambient lux threshold can overwrite each other. The latest action controls.

Note: This 1-10V is a SELV, isolated control signal.



### Detection Pattern



## Settings

### 1 Detection area

Detection area can be reduced by selecting the combination on the DIP switches to fit precisely for each specific application.

	1	2	
I	●	●	100%
II	●	○	75%
III	○	●	50%
IV	○	○	10%



I – 100%  
II – 75%  
III – 50%  
IV – 10%

### 2 Hold-time

Hold-time means the time period to keep the lamp on 100%, after all motion has ceased (detection area vacated).

	1	2	3	
I	●	●	●	5s
II	●	●	○	30s
III	●	○	○	1min
IV	●	○	○	5min
V	○	●	●	10min
VI	○	●	○	20min
VII	○	○	○	30min



I – 5s  
II – 30s  
III – 1min  
IV – 5min  
V – 10min  
VI – 20min  
VII – 30min

### 3 Daylight sensor

The daylight threshold can be set on DIP switches, to fit for particular application.

“Daylight” : The lamp works always, even during daylight.  
“Twilight” : The lamp works only in twilight and in darkness.  
“Darkness” : The lamp works only in darkness.

	1	2	
I	●	●	Disable
II	●	○	50Lux
III	○	●	10Lux
IV	○	○	2Lux



I – Disable  
II – 50Lux  
III – 10Lux  
IV – 2Lux

### 4 Stand-by period (corridor function)

This is the time period you would like to keep at the low light output level before it is completely switched off in the long absence of people.

Note: “0s” means on/off control;  
“+∞” means bi-level dimming control, fixture never switches off.

	1	2	3	
I	●	●	●	0s
II	●	●	○	10s
III	●	○	○	1min
IV	●	○	○	5min
V	○	●	●	10min
VI	○	●	○	30min
VII	○	○	●	1H
VIII	○	○	○	+∞



I – 0s  
II – 10s  
III – 1min  
IV – 5min  
V – 10min  
VI – 30min  
VII – 1H  
VIII – +∞

### 5 Stand-by dimming level

This is the dimmed low light output level you would like to have after the hold-time in the absence of people.

	1	2	
I	●	●	10%
II	●	○	20%
III	○	●	30%
IV	○	○	50%



I – 10%  
II – 20%  
III – 30%  
IV – 50%

## Technical Data

Operating voltage	120~277Vac
Switched power (capacitive load)	400W@120Vac; 800W@230Vac; 1000W@277Vac
Standby power	<1W
Detection area	10%/50%/75%/100%, can be customized
Hold time	5s/30s/1min/5min/10min/20min/30min
Standby period	0s/10s/1min/5min/10min/30min/1h/+∞
Standby dimming level	10%/20%/30%/50%
Daylight threshold	2~50Lux/disable
Sensor principle	High Frequency (microwave)
Microwave frequency	5.8GHz+/-75MHz
Microwave power	<0.2mW
Detection range	Max. (∅xH): 12m x 6m
Detection angle	30°~150°
Mounting height	Max.6m
Operating temperature	-20°C ~ +60°C
IP rating	IP20 IP65(mounting in Hytronik special box)
Certificate	FCC, ETL, in testing for cULus