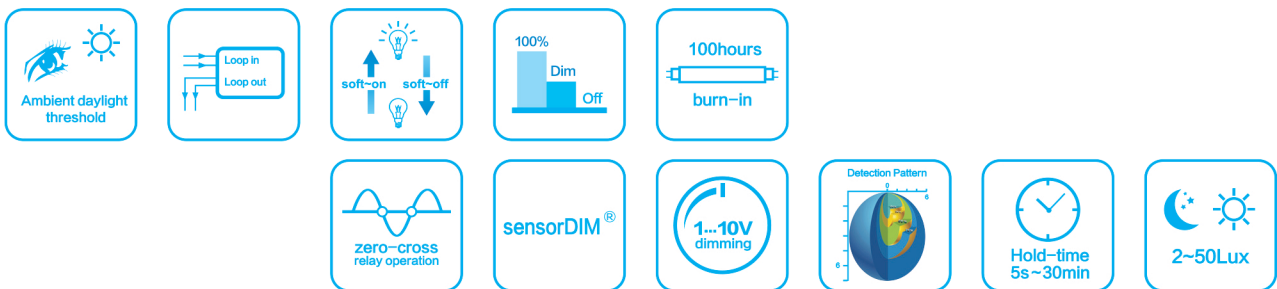
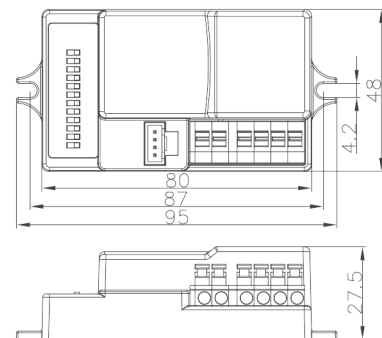
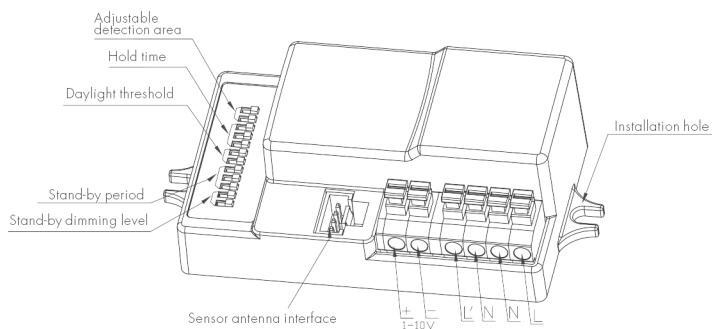


# FDWPC-MS

## Microwave Motion Sensor 120-277V

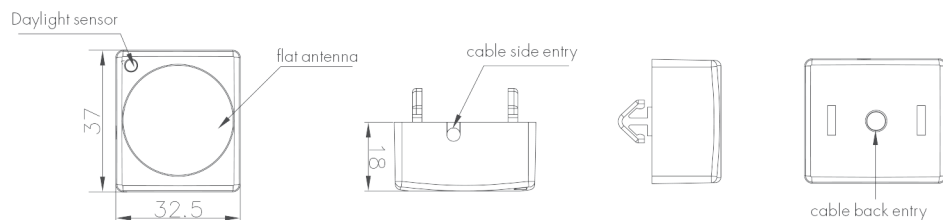
Detached version  
 1-10v dimming control



Hytronik offers 3 types of Separate Antenna Module: flat antenna for direct click on the panel, rod antenna for fixing underneath the panel, and T5/T8 fingers to grip on T5/T8 tubes-

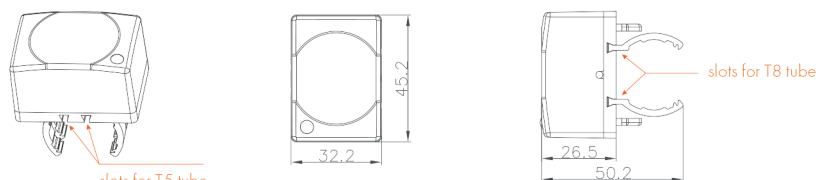
### Model SAM2

Flat sensor antenna, with optional cable entry (side entry and back entry)



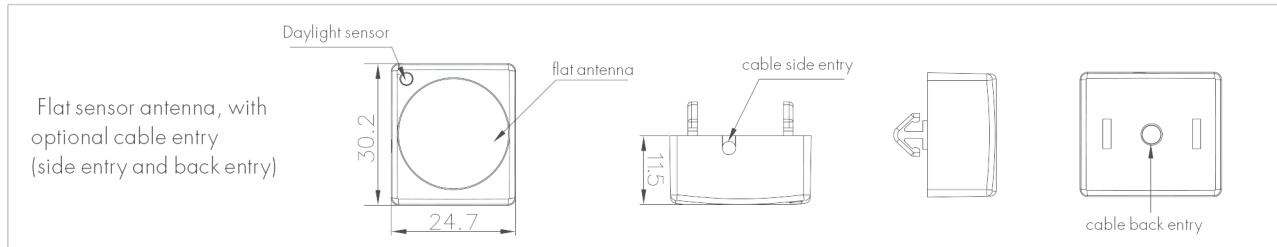
### Model SAM3

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



# FDWPC-MS

## Microwave Motion Sensor 120-277V



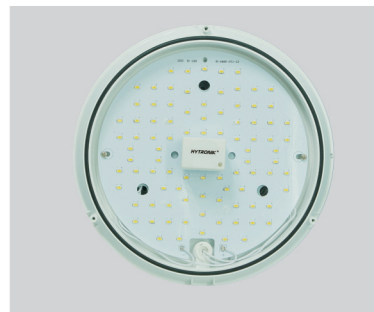
This sensor is particularly designed for below application:

1. LED pannel 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. The sensor head has 2 fingers for T5 and T8 respectively.
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 drivers.



For LED bulkhead



For 2D 28/38 w lamps

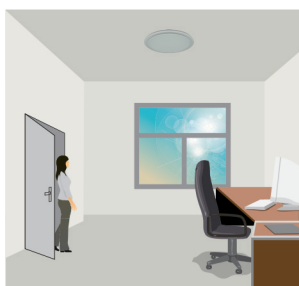
This sensor is particularly designed for light fittings where the space is very limited for a big sensor , for instance, on the LED panel bulkhead, and 2D lamp. In such application, only the detached small antenna is needed on the outer surface, while the sensor body and the dirvers/ballast can be hidden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

## Function and options

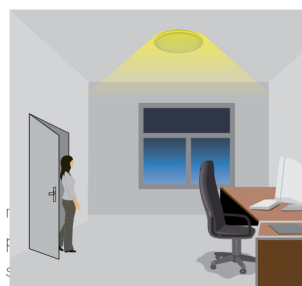
### 3 Steps Dimming Control (Corridor Function)

Same as Tridonic Excel ballast, Hytronik builds this function inside the motion sensor to achieve 3 steps dimming control , for some areas that require a light change notice before switch-off.

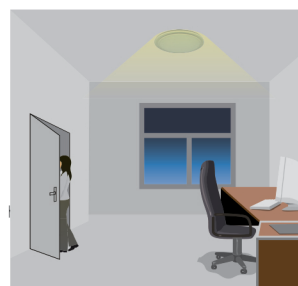
It offers 3 levels of light : 100%-->dimmed light ( 10%, 20%,30%,40%, 50% optional)-->off; and 2 periods of selectable waiting time: motion holdtime and standby period ; selectable daylight threshold and freedom of detection area.



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



People left, light dims to 10%/20%/30%/40%/50% (options) standby level after the



Light switches off automatically after the standby period elapsed.

# FDWPC-MS

## Microwave Motion Sensor 120-277V

### 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 as well as the fixture will blink 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 1 sec.

### 3 zero-cross relay operation

Designed in the software, the sensor switches on/off the load right on the zero-cross point, to ensure the min. current passing through the relay contact point, and enable the maxi. load and life-time of the relay.

### 4 loop-in and loop-out

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

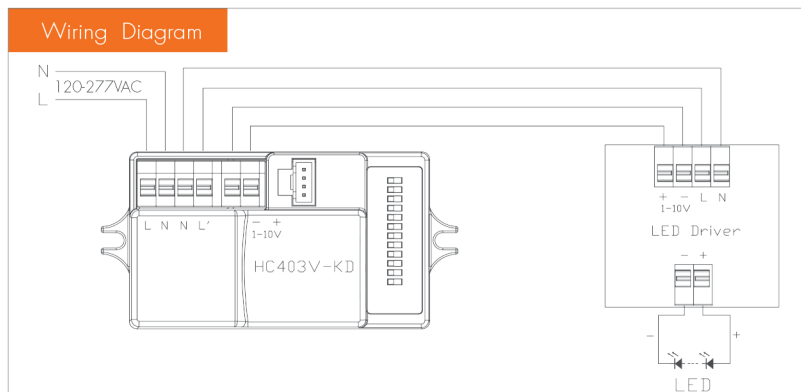
With simple operation, rapidly turn off/on the fixture 2 cycles within 2 sec:

- the green LED on the sensor will flash slowly for 5 seconds, meanwhile the fixture blink twice.
- the daylight sensor measures and remembers the surrounding lux for 1 sec.
- the fixture and green LED will be on for 10s to indicate the success of learning.

This feature enables the fixture to function well in any real application circumstance, where the daylight that penetrate into fixture may vary a lot.

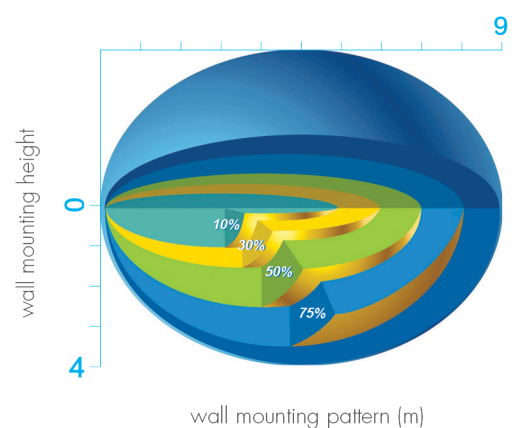
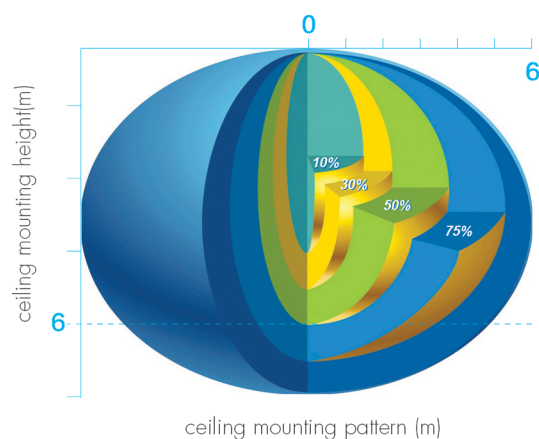
The latest surrounding lux value overwrites previous lux value learned.

Both the setting on DIP switch and the learned ambient lux threshold can overwrite each other. The latest action stays in validity.



Note: this 1-10v is a SELV, isolated control signal.

## Detection Pattern



# FDWPC-MS

## Microwave Motion Sensor 120-277V

**Factory Direct Lighting**  
100 Shields Court, Markham,  
ON Canada L3R 9T5  
Tel: 905-944-1210 • 1-855-533-0743  
Toll Fax: 1-855-533-3294  
<https://www.fdlighting.ca/>

### 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 you would like to keep the lamp on 100% after the person has left the detected area.

	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 – daylight, daylight sensor 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.

	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 holdtime 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	400W@120VAC; 800W@230VAC; 1000W@277VAC (capacitive load)
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	Microwave motion detector
Microwave frequency	5.8GHz+/-75MHz
Microwave power	<0.2mw
Detection range	Max. (ØxH): 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	Semko, EMC, CE, R&TTE