

On/Off Control HF Sensor

HC419S/UV
Super-compact Version

HYTRONIK®

Applications

Occupancy detector with on/off control suitable for indoor use.




Suitable for building into the fixture:

- Office / Commercial Lighting
- Meeting rooms
- Classroom

Use for new luminaire designs and installations



Features

-  Zero crossing detection circuit reduces in-rush current and prolongs relay life
-  Loop-in and loop-out terminal for efficient installation
-  5-year warranty

Technical Data

Input Characteristics

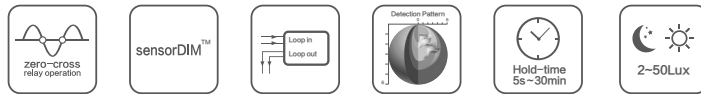
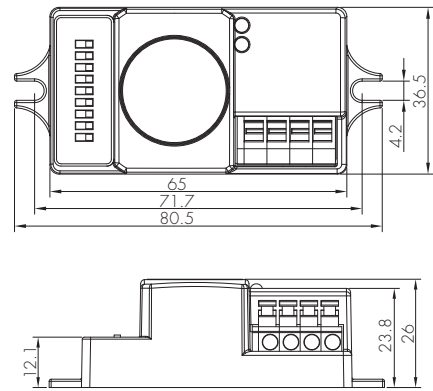
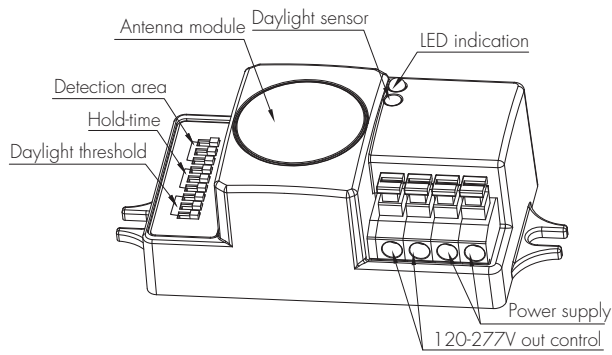
Model No.	HC419S/UV
Mains voltage	120~277VAC 50/60Hz
Stand-by power	<0.5W
Load ratings:	
Capacitive	400VA
Resistive	800W
Warming-up	20s

Environment

Operation temperature	Ta: -35°C ~ +70°C
Case temperature (Max.)	Tc: +80°C
IP rating	IP20

Sensor Data

Model No.	HC419S/UV
Sensor principle	High Frequency (microwave)
Operation frequency	5.8GHz +/- 75MHz
Transmission power	<0.2mW
Max installation height	6m
Max detection range	12m (diameter)
Detection angle	30° ~ 150°
Setting adjustments:	
Sensitivity	10% / 30% / 50% / 75% / 100%
Hold-time	5s ~ 30min (selectable)
Daylight threshold	2 ~ 50 lux, disabled

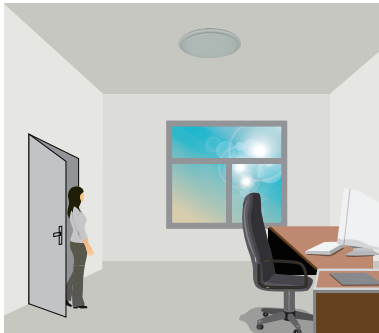


Note: We recommend the mounting distance between sensor to sensor should be more than 2m to prevent sensors from false-triggering.

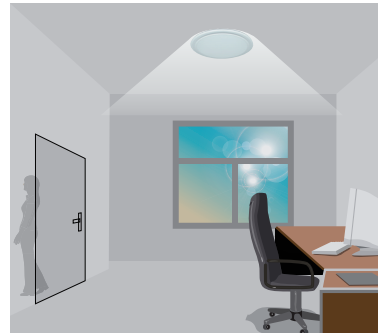
Functions and Features

1 On/off Control

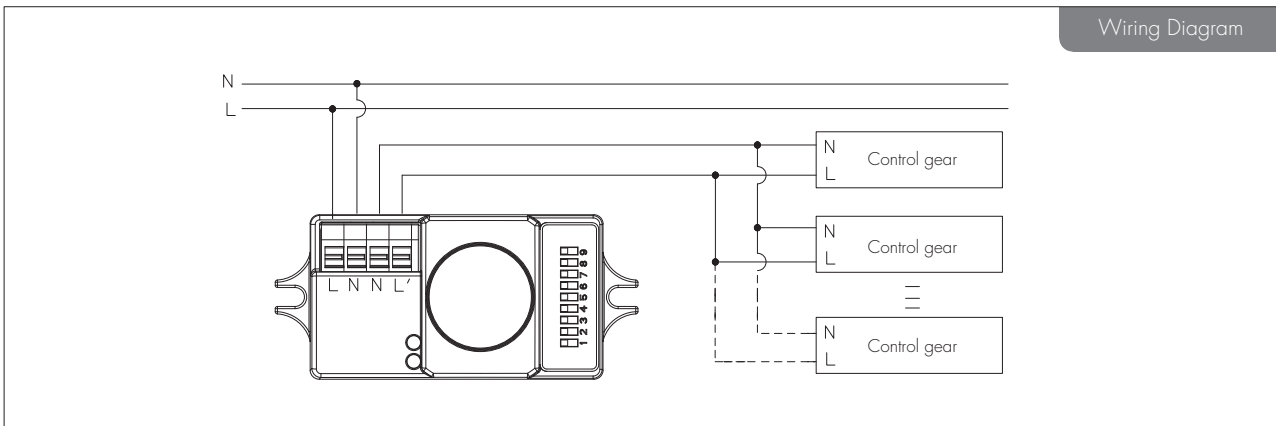
This sensor is a motion switch, which turns off the light upon detection of motion, and turns on after a pre-selected hold-time when there is no movement.



The light does not switch on when presence is detected.

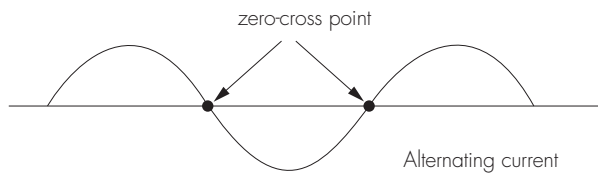


The sensor switches on the light automatically after the hold-time when there is no motion detected.



2 Zero-cross Relay Operation

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



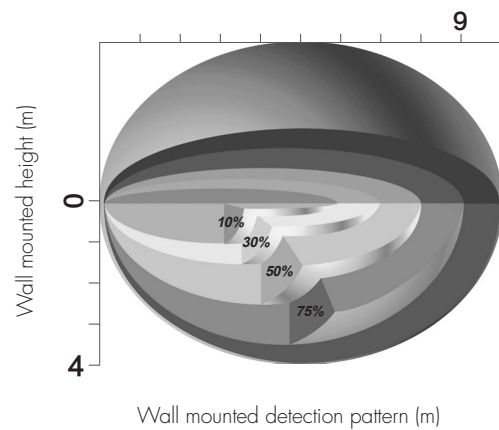
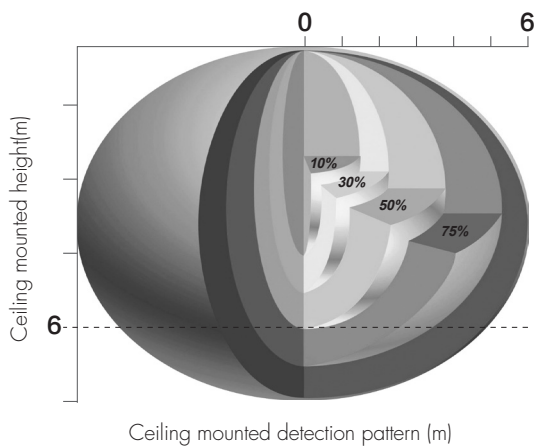
3 Loop-in and Loop-out Terminal

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

4 Precautions and usages

- I. This sensor has 20s warming-up period when powered on. During the 20s warming-up period the light will stay OFF for safety concerns.
- II. In case of power cut or power failure, the status after re-powered on will be "OFF" for safety concerns.
- III. Usage: For maximum UV-light life-span consideration, we recommend to manually switch OFF the UV lights when sterilization is not needed. We recommend customers to select suitable time to carry out sterilization. During the sterilization period, our sensors ensures human safety and switches OFF the UV lights when occupancy detected.

Detection Pattern



DIP Switch Settings

1 Detection Range

Sensor sensitivity can be adjusted by selecting the combination on the DIP switches to fit precisely for each specific application.

	1	2	3	
I	●	●	●	100%
II	○	●	●	75%
III	○	●	○	50%
IV	○	○	●	30%
V	○	○	○	10%




- I – 100%
- II – 75%
- III – 50%
- IV – 30%
- V – 10%

2 Hold Time

Select the DIP switch configuration for the light off-time after presence detection.

	4	5	6	
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 Threshold

The sensor will not be triggered if ambient lux level exceeds the daylight threshold preset. For this product, we have set all the threshold setting to "Disable" for better use with UV light where photocell function is not needed.

	7	8	9	
I	●	●	●	Disable
II	○	●	●	Disable
III	○	●	○	Disable
IV	○	○	●	Disable
V	○	○	○	Disable



- I – Disable
- II – Disable
- III – Disable
- IV – Disable
- V – Disable

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](http://www.hytronik.com/download->knowledge->Microwave%20Sensors%20-%20Precautions%20for%20Product%20Installation%20and%20Operation)
2. Data sheet is subject to change without notice. Please always refer to the most recent release on [www.hytronik.com/products/Motion Sensors ->Built-in HF Sensor](http://www.hytronik.com/products/Motion%20Sensors->Built-in%20HF%20Sensor)
3. Regarding Hytronik standard guarantee policy, please refer to [www.hytronik.com/download ->knowledge ->Hytronik Standard Guarantee Policy](http://www.hytronik.com/download->knowledge->Hytronik%20Standard%20Guarantee%20Policy)