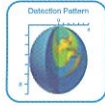
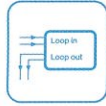


Model: HC419S (120-277Vac)

Mechanical structure (mm)



Functions and Options

1 On/off Function

This sensor is a motion detection switch. Fixture turns on when sensor detects motion and turns off with no motion, following the pre-selected hold-time (5s-30min). The built-in daylight sensor compares available luminance to pre-set threshold level. Fixture stays off with sufficient natural light.



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.



After the hold time, then switches off automatically when no movement is detected.

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	3	4	
I	●	●	●	●	100%
II	○	●	●	●	75%
III	●	○	●	●	50%
IV	●	●	○	●	30%
V	○	○	○	○	10%

- I – 100%
- II – 75%
- III – 50%
- IV – 30%
- V – 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	4	
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.

	1	2	3	4	
I	●	●	●	●	Disable
II	○	●	●	●	50Lux
III	●	○	●	●	30Lux
IV	●	●	○	●	10Lux
V	○	○	○	○	2Lux

- I – Disable
- II – 50Lux
- III – 30Lux
- IV – 10Lux
- V – 2Lux

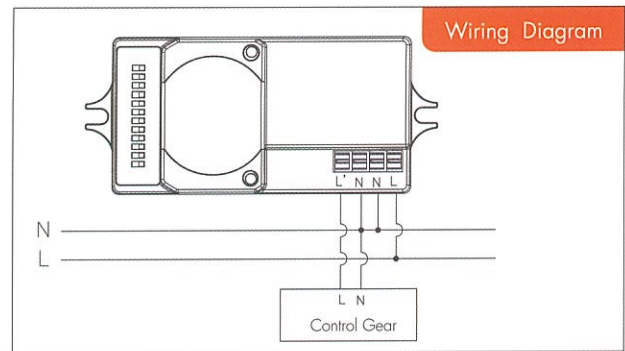
Technical Data

Operating voltage	120-277Vac 50Hz/60Hz
Switched power	Capacitive load: 400W@120Vac; 1000W@277Vac Resistive load: 700W@120Vac; 1600W@277Vac
Standby power	<1W
Warm time	20s
Detection area	10/30/50/75/100%, can be customized
Hold time	5s/30s/1min/5min/10min/20min/30min, can be customized
Daylight threshold	2~50Lux; disable
Sensor principle	High Frequency (microwave)
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	-35°C ~ +70°C
IP rating	IP20 IP65(mounting in Hytronik special box)
Certificate	cULus

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 1 sec.



3 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.

4 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.

5 Condominium control function

In many cases, several sensors are connected together to control the same fixture, or to trigger on each other, the sudden on/off of the lamp tube or the ballast/driver causes huge magnetic pulse, which may mis-trigger the sensor. This sensor has a very advanced software to ignore that interference.

By connecting L' terminal with L' on another sensor, if any of the transmitter fixture (containing sensor) is triggered, all luminaries (including receiver and other transmitter unit in the group) will also light up.

6 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.

Detection Pattern

