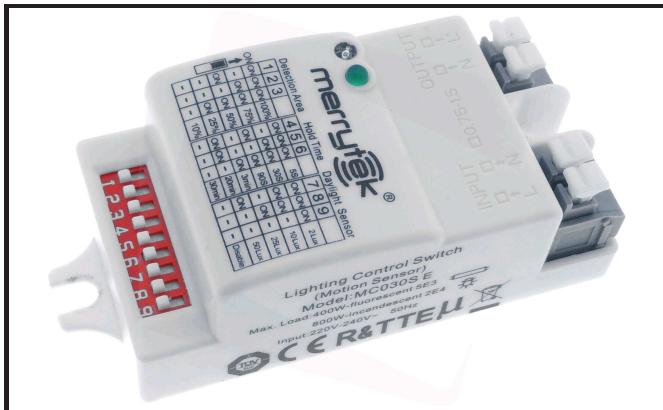# HF Motion Detector - a module for interior use

- Compact size design, can be built-in most of light fixtures.
- Sensor parameters can be easily adjustable by DIP switches.
- Terminal design for both in and off connection, easy to be connected.

Parameters

Input	Operating voltage range	198-264VAC, 50Hz/60Hz
	Rated voltage	220-240V AC, 50Hz/60Hz
	Stand-by Power	<0.5W
	Surge test	L--N: 1kV
Output	Working mode	ON/OFF function
	Type of load	Inductive or resistive load
	Load capacity	400W (inductive) ; 800W (resistive)
	Max. surge capacity	30A (50% I_{peak}, t_{width}=500uS, 230Vac, full load, cold start); 60A (50% I_{peak}, t_{width} =200uS, 230Vac, full load, cold start)
Sensor parameters	Operating frequency	5.8 GHz ±75 MHz, ISM band .
	Transmitting power	ImWMax.
	Hold-time	5S/30S/90S/3min/20min/30min (set via 3 DIP switches)
	Detection area	100%/75%/50%/25%/10%(set via 3 DIP switches)
	Daylight sensor	2lux/10lux/25lux/50lux/Disable (set via 3 DIP switches) (Ambient diffusion status)
	Detecting radius	4-6m (mounting height 3m)
	Mounting height	6m Max
	Detecting angle	Celling mounting 360° / wall mounting 150°
Operating environment	Operating temperature	-25°C...+60°C
	Storage temperature	-40°C...+80°C Humidity: 10% -95% (non-condensing)
Certifikace standards	Safety standards	EN61058-1
	EMC standards	EN300440, EN301489-1, EN55015, EN61547, EN61000-3-2, EN61000-3-3, EN62479
	Environmental requirement	Compliant to RoHS
	Certificate	CE,TUV, RED
Others	Wiring	Press-in type terminals, wire diameter: 0,75-1,5mm^2
	IP rating	IP20
	Protection class	Class II
	Installation	Built-in
	Dimension	77*36*25.6mm
	Package	Bubble bag + clapboard + carton (K=A)
	Net weight	42.6g
	Lifetime	50,000h @ Ta full load

Notes

Detection area is effected on volume of motion object and motion speed.
The detection area is tested by a 165cm height person and walking speed is 0,5m/s.

Function

ON/OFF function

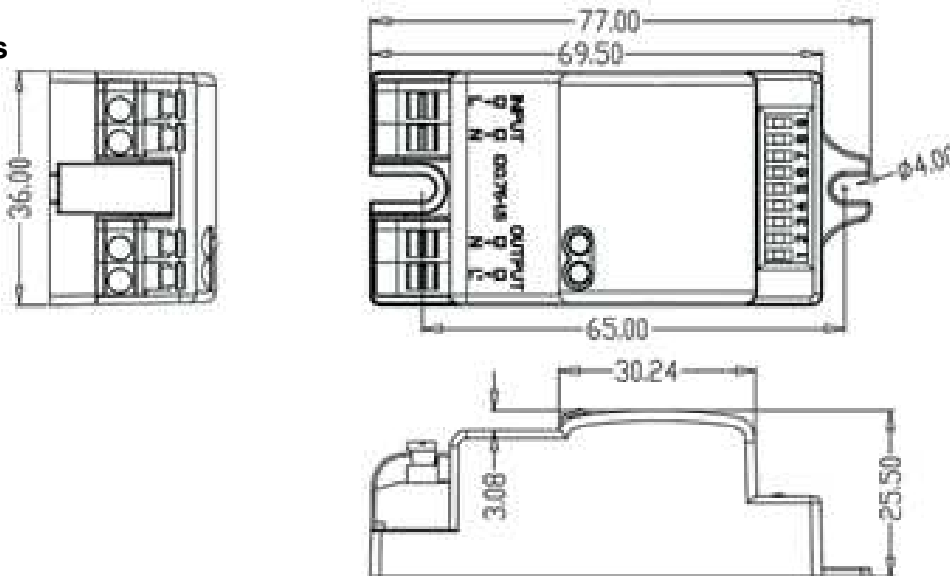① With sufficient ambient light, the light will not be switched on even if with motion signal.

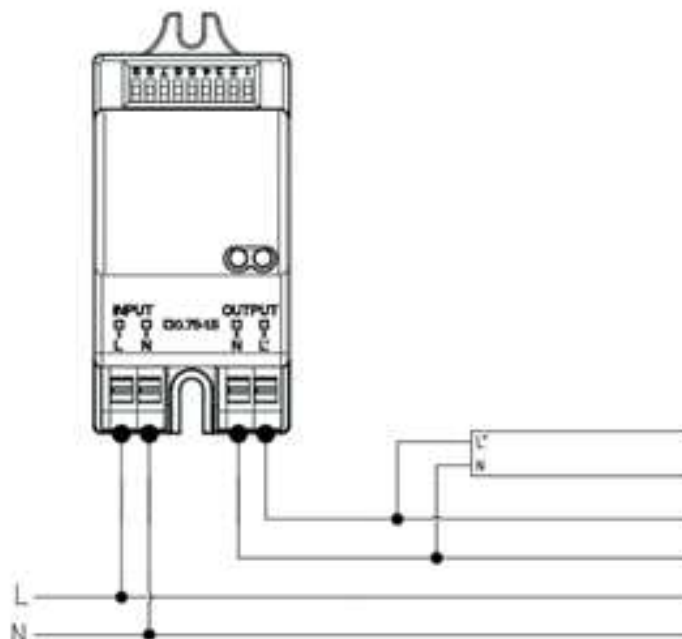② With insufficient ambient light, the sensor switches on the light when motion is detected.

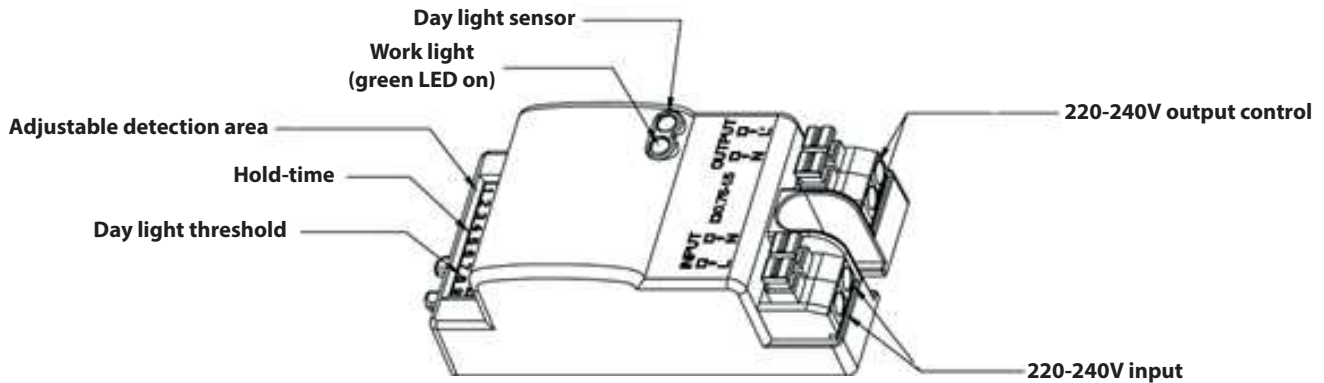③ After elapse of hold time, the sensor switches off the light when no motion is detected.
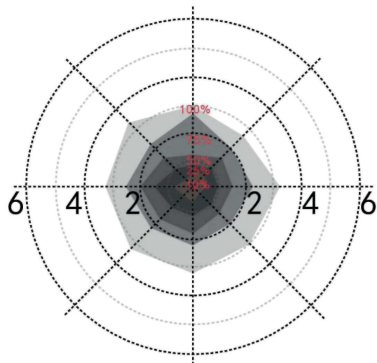
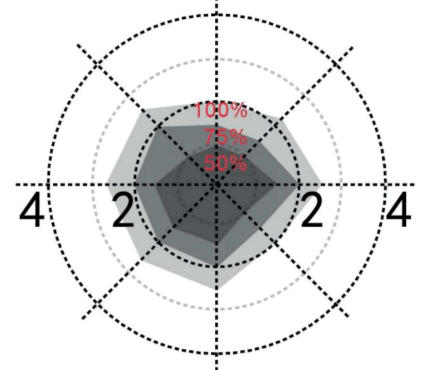## Dimensions

Wiring

Device destription

Day light sensor

Work light
(green LED on)

Adjustable detection area

Hold-time

Day light threshold

220-240V output control

220-240V input

Radiation pattern

Celling mounting

Celling mounted height: 3m
Sensitivity: 100%/75%/50%/25%/10%

6 4 2 2 4 6

Normal moving   (Speed: 1m/s)

10 8 6 4 2 2 4 6 8 10
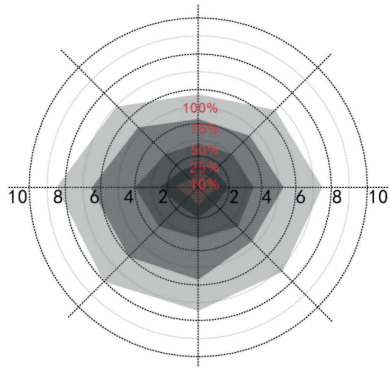
Slow moving (Speed: 0.3m/s)
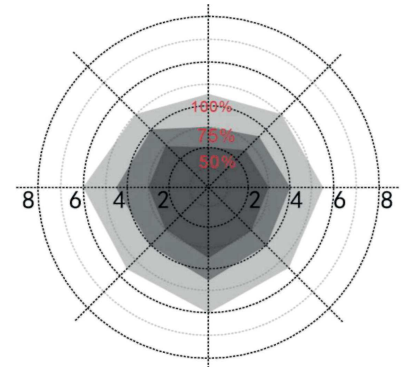
Celling mounted height: 6m(*)
Sensitivity: 100%/75%/50%

4 2 2 4

Normal moving   (Speed: 1m/s)
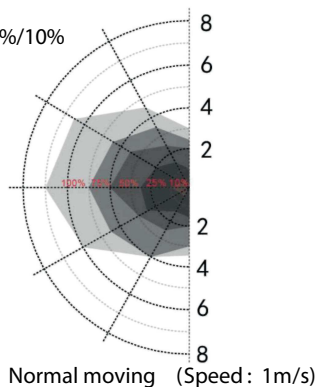
8 6 4 2 2 4 6 8

Slow moving (Speed: 0.3m/s)

*50%,75%,100% detection sensitivity is workable when installed at 6m mounting height. Only 10%, 25%, sensitivity is not able to detect motion signal.
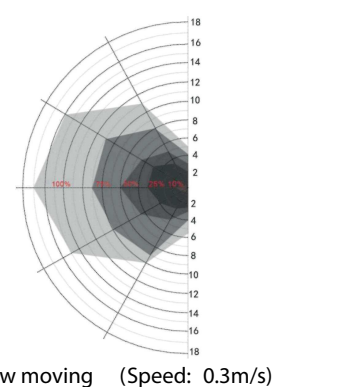
Wall mounting

Wall mounted height: 2m
Sensitivity: 100%/75%/50%/25%/10%

8
6
4
2
2
4
6
8

Normal moving   (Speed : 1m/s)

18
16
14
12
10
8
6
4
2
2
4
6
8
10
12
14
16
18

Slow moving   (Speed: 0.3m/s)

DIP Switch setting

Detection area (sensitivity)

	1	2	3	
I	ON	ON	ON	100%
II	-	ON	ON	75%
III	ON	-	ON	50%
IV	-	-	ON	25%
V	-	-	-	10%

Hold-time

	4	5	6	
I	ON	ON	ON	5S
II	-	ON	ON	30S
III	ON	-	ON	90S
IV	-	-	ON	3min
V	ON	ON	-	20min
VI	-	-	-	30min

Daylight threshold

	7	8	9	
I	ON	ON	ON	2Lux
II	ON	ON	-	10Lux
III	-	ON	-	25Lux
IV	ON	-	-	50Lux
V	-	-	-	Disabled*

* Disable means the daylight sensor does not work. The sensor will turn on light once motion is detected regardless of ambient light level.

Initialization

After on, the sensor automatically turns on light at 100% brightness. During the initialization , the sensor is not able to detect movement.

Factory setting

Detection area: 100%, Hold-time: 5s, Daylight sensor: Disable

Application notice

1) Be sure to power off before adjusting DIP switch setting.
2) The microwaves can not pass through metal, so the sensor can not be installed in closed or semi-closed metal lamps and lanterns.
   Make sure there are no metal or glass above the sensor.