

FCL- Series Microwave Motion Sensor (MSSD)

Dimming Function/Detachable Version for LED Tri-proof Light & LED Batten



Introduction

- Unique split design makes it suitable to fix within lamps which have limited space.
- Automatic dimming when used in combination with 1-10v dimmable LED drivers or ballasts.
- Built-in adjustable daylight sensor.
- 1-10v interface can match up with Merrytek stand-alone daylight sensor MS01 and achieve daylight harvesting.
- Detection area, time delay, and daylight thresholded can be precisely set via DIP switch.
- Using Pluggable design between motion detector and power part, easy to reinstall or maintain.

MSSD is an innovative and active motion detectors with HF system 5.8GHz. Motion can be detected through plastic, glass and thin non-metal materials.

This sensor is particularly designed for the lights which have limited space, for examples, LED tri-proof lights and LED battens. The mini motion detector is separated from power part of sensor, it will be easier to fix motion detector on the surface of tri-proof light and hidden the power part behind it. As the height of detector is only 13mm Max., there is no shadow when the lamps switch on.



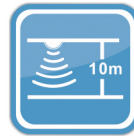
Max.8M



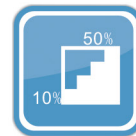
Light Sensor



Hold Time
5s~+∞



Mounting Height
10m Max.



Automatic
Dimming



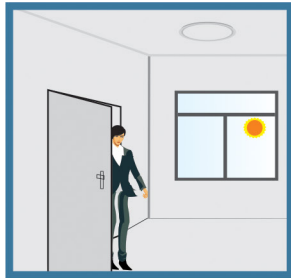
5 Years
Guarantee

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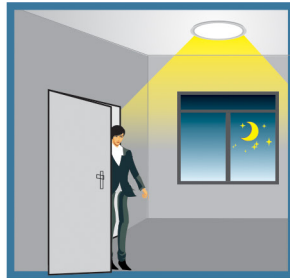
Dimming Function

3-Step Dimming Function

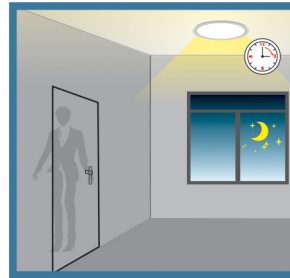
When used in combination with 1-10V dimmable LED drivers and ballasts, the sensors can achieve 3-step dimming function, 100%---> low light--->off. And the sensors build in adjustable daylight sensors, very easy to install and cost-effective.



With sufficient ambient light, the sensor does not switch on the lamp.



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



After hold time, the sensor dims the lamp at a low light level if no new motion trigger.



After stand-by period, the sensor switches off the lamp if no motion is detected in its detection zone.

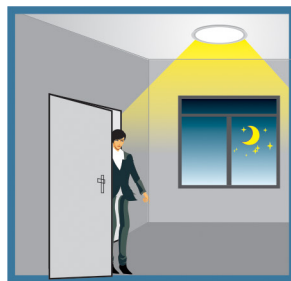
Dimming Function

3-Step Dimming Function

Also, the sensors can provide a 2-step dimming function, 100%--->low light (never turn off). They are particularly suitable for use in corridors, stairwells, and underground passages where low light levels are maintained until motion is detected.



With sufficient ambient light, the sensor does not switch on the lamp.

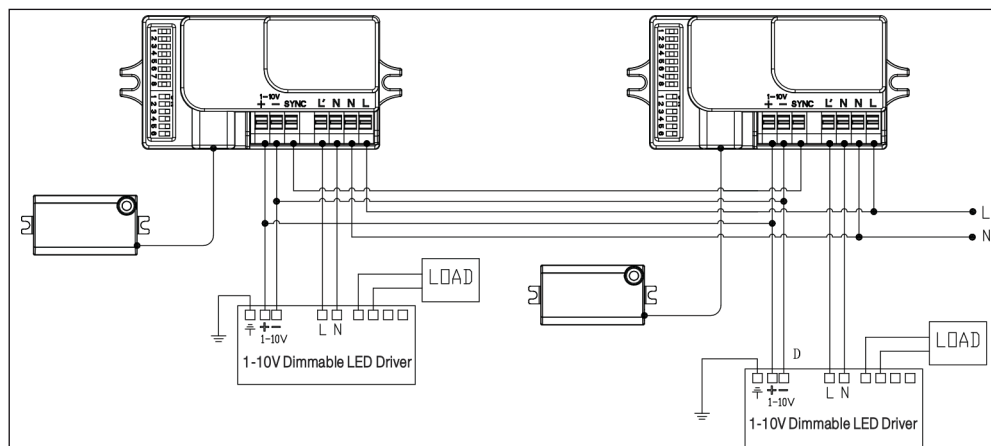


With insufficient ambient light, the sensor switches on the lamp when motion is detected.



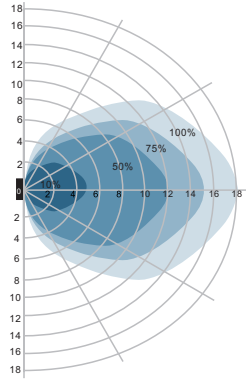
After hold time, the sensor dims the lamp at a low light level if no new motion trigger.

Wiring Scheme

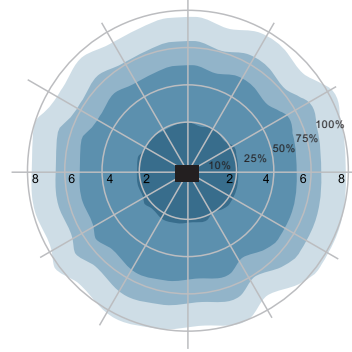


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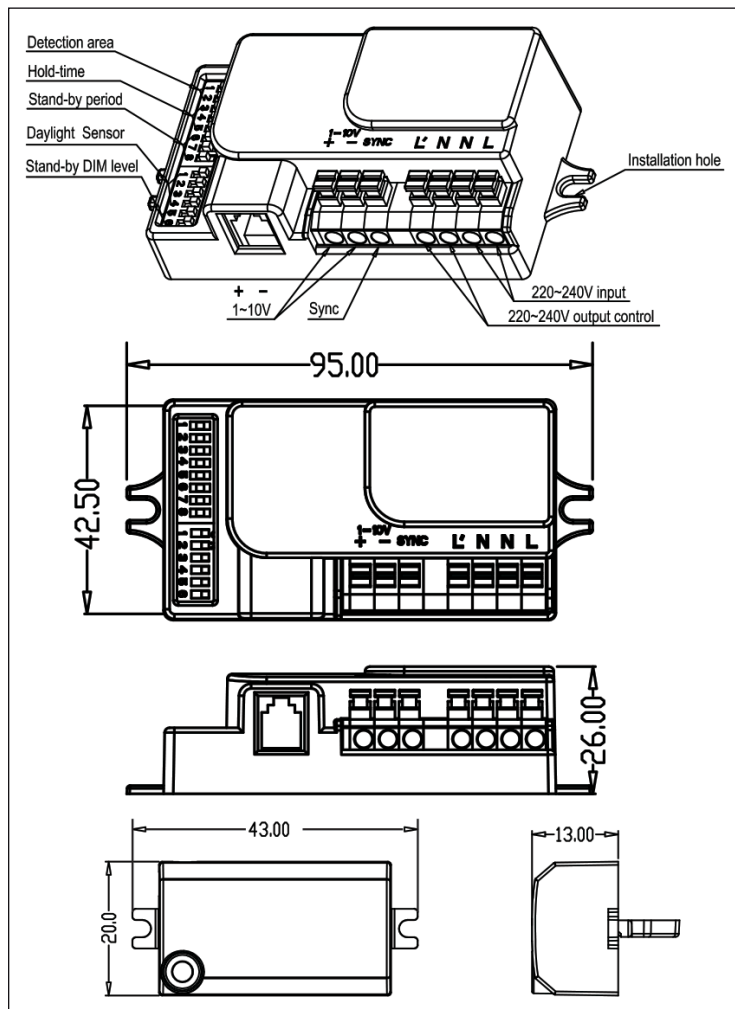
Detection Pattern



Wall mounting pattern (Unit: m)
Suggested installation height: 1-1.8m



Ceiling mounting pattern (Unit: m)
Suggested installation height: 2.5-10m




MSSD	
Operating Voltage	120-277Vac, 50Hz/60Hz
Rated Capacitive Load	400W @ 120Vac, 800W @ 220-277Vac (inductive)
HF System	5.8GHz ± 75MHz, ISM Wave Band
Transmitting Power	<0.5mW
Power Consumption	<1W(standby)
Detection Zone	26ft (@ 9.84 ft mounting height)
Detection Sensitivity	25% / 50% / 75% / 100%
Hold Time	5s / 30s / 90s / 3min / 20min / + ∞
Daylight Sensor	5lux/15lux / 30lux / 50lux /100lux / 150lux / Disable
Stand-By Period	0s /5s / 5min / 10min / 30min / 1h / + ∞
Stand-By Dimming Level	10% / 20% / 30% / 50%
Mounting Height	10m Max.
Motion Detection	0.5-3m/s
Detection Angle	150° (Wall Installation); 360° (Ceiling Installation)
Operating Temperature	-25°C - 60°C
IP Rating	IP20

FCL- Series Microwave Motion Sensor (MSSD)


Setting

By selecting the combination on the DIP switches, sensor data can be precisely set for each specific application.

ON ↑ 		1	2	
	I	ON	ON	100%
	II	ON	-	75%
	III	-	ON	50%
	IV	-	-	25%


Detection area **100% IS DEFAULT**

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

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

Hold Time **3 MINUTES IS DEFAULT**


Refers to the time period the lamp remains at 100% illumination after no motion detected.

ON ↑ 		6	7	8	
	I	ON	ON	ON	0S
	II	-	ON	ON	5S
	III	ON	-	ON	5min
	IV	-	-	ON	10min
	V	ON	ON	-	30min
	VI	-	ON	-	1h
	VII	-	-	-	+ ∞

ALL OFF IS DEFAULT


Stand-By Period

Refers to the time period the lamp remains at a low light level before it completely switches off in the long absence of people. When set to Disable mode, the low light is maintained until motion is detected..

ON ↑ 		1	2	
	I	ON	ON	50%
	II	-	ON	30%
	III	ON	-	20%
	IV	-	-	10%

Stand-By Dimming Level **20% IS DEFAULT - DIMS TO DOWN 0 AFTER 15 SECONDS**

The low light level you would like to have after the hold time in the long absence of people..

ON ↑ 		3	4	5	6	
	I	ON	ON	ON	ON	5Lux
	II	-	ON	ON	ON	15Lux
	III	ON	-	ON	ON	30Lux
	IV	-	-	ON	ON	50Lux
	V	ON	ON	-	ON	100Lux
	VI	ON	ON	ON	-	150Lux
	VII	-	-	-	-	Disable

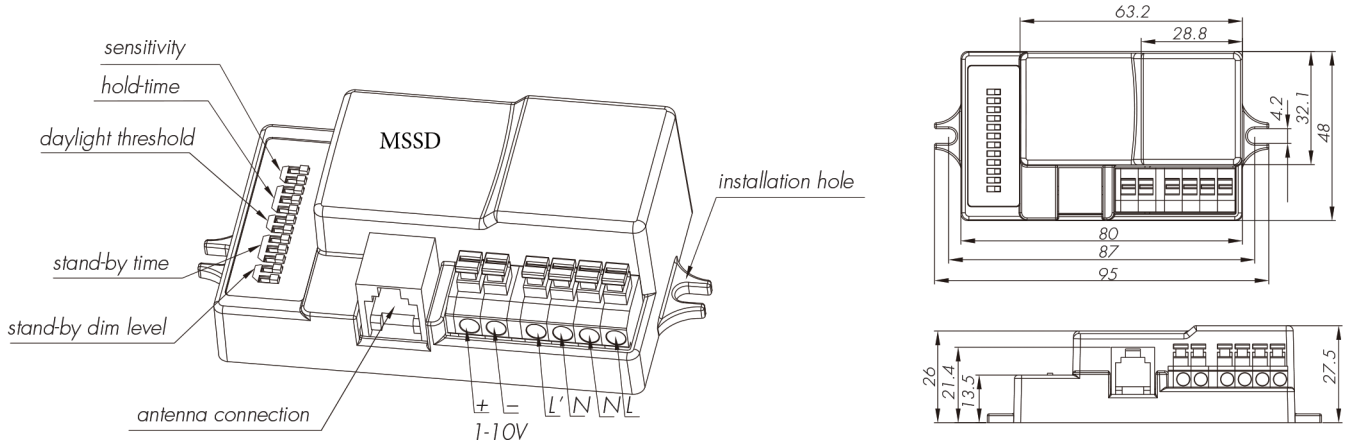
Daylight Sensor **DEFAULT IS OFF/ DEPENDS ON JOB SPECIFICATION,**

The sensor can be set to only allow the lamp to illuminate below a defined ambient brightness threshold. When set to Disable mode, the daylight sensor will switch on the lamp when motion is detected regardless of ambient light level. 100lux, 100lux,50lux: twilight operation, 10lux, 5lux: darkness operation only. Note that daylight sensor is active only when lamp totally switches off.

FCL-MSSD Series Sensor Options

See Fidelux website (www.Fidelux.com) for more information on controls & sensors

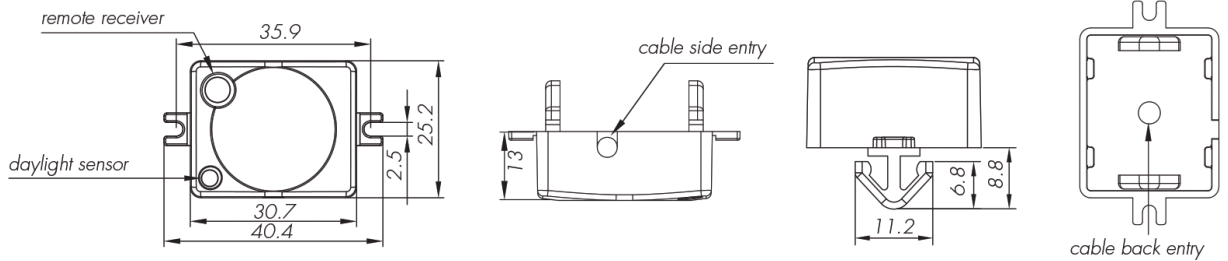
Option A - Microwave Sensor



Detached Antennas are Offered for Different Applications

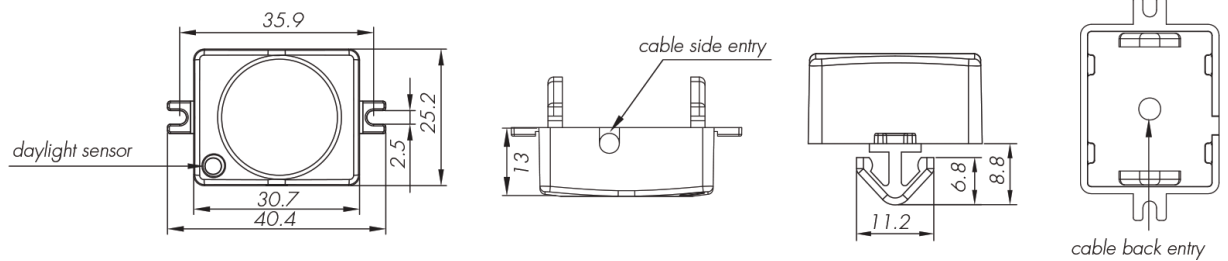
Model: ANT5

- Compact size, and easy to assemble
- Remote controllable



Model: ANT9

- Compact size, and easy to assemble



Model: ANT6

- Suitable for T5/T8 tube
- Remote controllable
- Extended detection range

