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FRHB MSSD - Microwave Motion Sensor



MSSD-A



MSSD-B



MSSD-C



MSSD-D

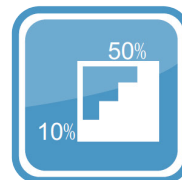
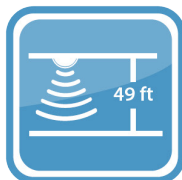


Features & Benefits

- Automatic dimming when used in combination with 1-10v dimmable LED drivers or ballasts
- Built-in adjustable daylight sensor
- 1-10v interface can achieve daylight harvesting
- Detection area, time delay and daylight threshold can be precisely set via DIP switch
- Wide detection area, range up to 52ft in diameter and mounting height 49ft max, suitable for warehouse use
- Optional mounting brackets for different application

Introduction

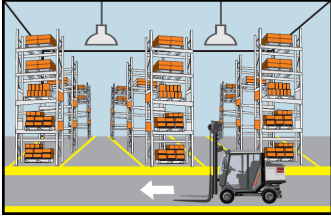
The MSSD sensor is innovative and active motion detectors with HF system 5.8GHz. Motion can be detected through plastic, glass and thin non-metal materials, except the higher mounting height 49ft Max. The sensors allow energy saving without compromising comfort. When used in combination with 1-10V dimmable LED drivers or ballasts, they can achieve 3-step dimming function, which is perfect for use in some areas that requires a light change notice before totally switch off. Also, the the lighting system has automated controls that either turn off or dim artificial light in response to the available daylight in the space.



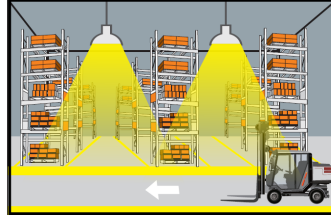
Dimming Function

3-step dimming function

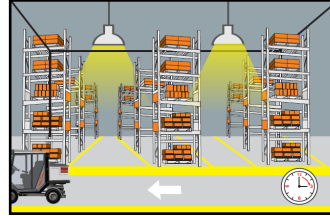
When used in combination with 1-10V dimmable LED drivers and ballasts, the sensors can achieve 3-step dimming function, 100%---> low light--->off. And the sensors built-in adjustable daylight sensors, very easy to install and cost-effective.



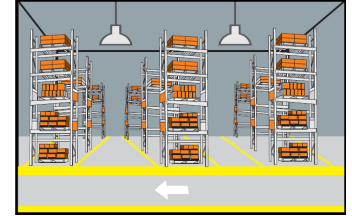
With sufficient ambient light, the sensor does not turn on the lamp



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

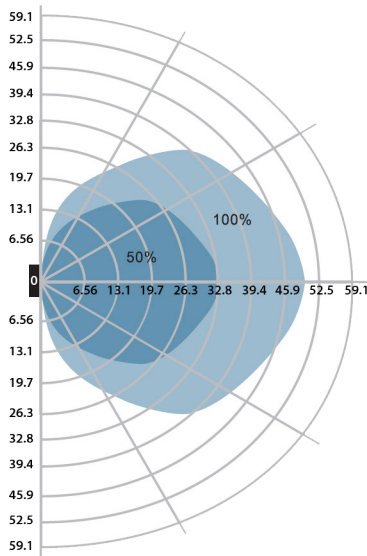


After hold time, the sensor dims the lamp at a low light level if no new motion trigger

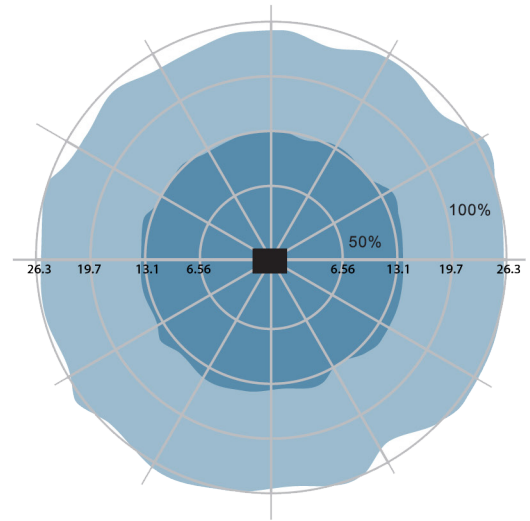


After standby period, the sensor switches off the lamp if no motion is detected in its detection zone

Detection Pattern



Wall mounting pattern (Unit: ft)



Ceiling mounting pattern (Unit: ft)

Setting

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

ON		1	
I	ON	100%	
II	—	50%	

Detection area

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

		2	3	4	
I	ON	ON	ON	5s	
II	—	ON	ON	30s	
III	ON	—	ON	90s	
IV	—	—	ON	3min	
V	ON	ON	—	20min	
VI	—	—	—	30min	

Hold time

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

Setting

	5	6	7	
ON	I	ON	ON	$+\infty$
	II	—	ON	60min
	III	ON	—	30min
	IV	—	—	10min
	V	ON	ON	5min
	VI	—	—	5s

Standby 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.

	8	9	
ON	I	ON	50%
	II	—	30%
	III	ON	20%
	IV	—	10%

Standby dimming level

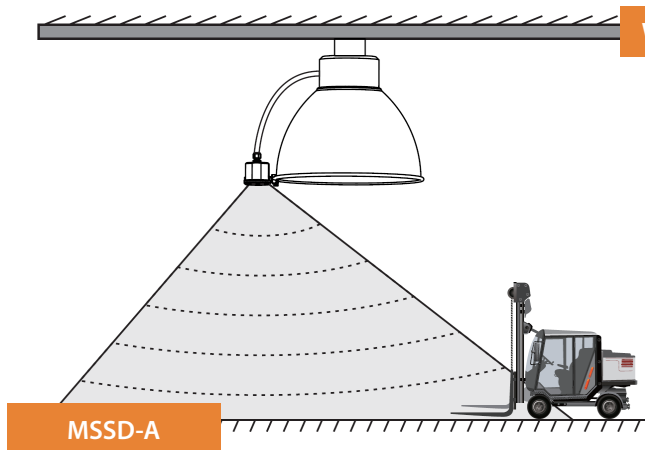
The low light level you would like to have after the hold time in the long absence of people.

	10	11	12	
ON	I	ON	ON	Disable
	II	—	ON	200lux
	III	ON	—	100lux
	IV	—	—	50lux

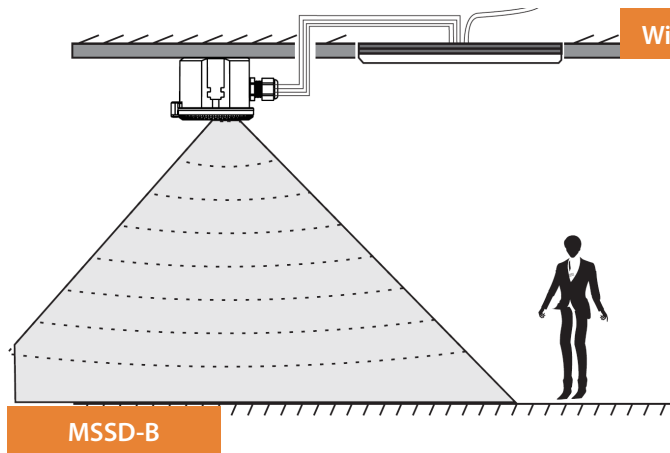
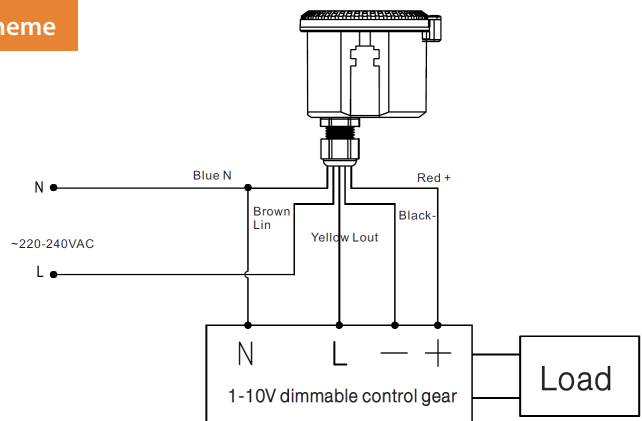
Daylight sensor

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. Note that daylight sensor is active only when lamp totally switches off.

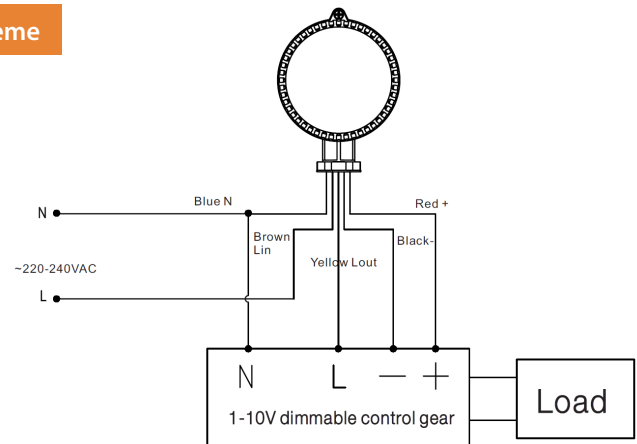
Wiring schemes

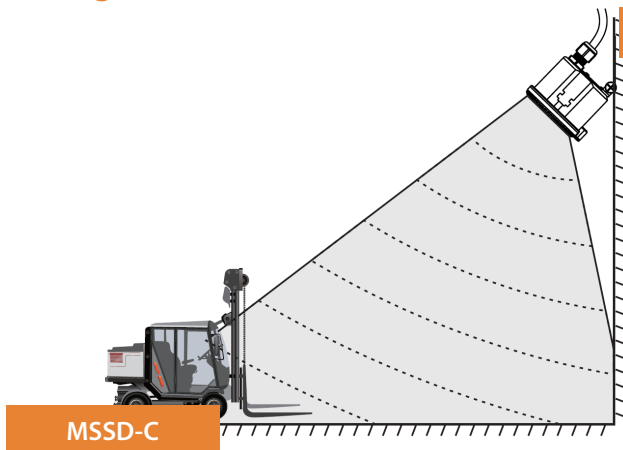


Wiring scheme

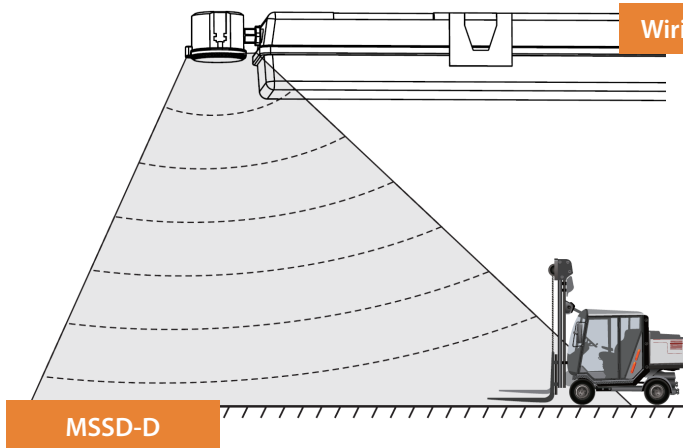
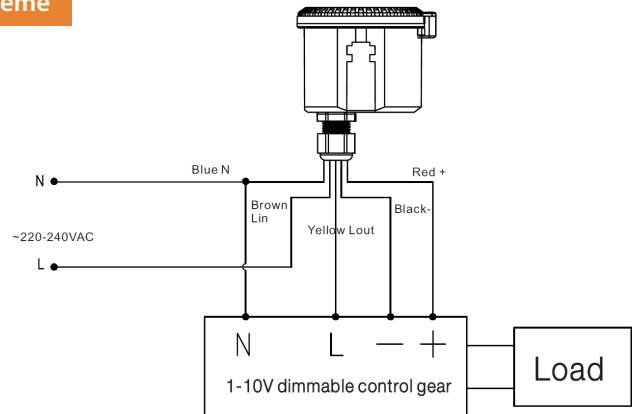


Wiring scheme

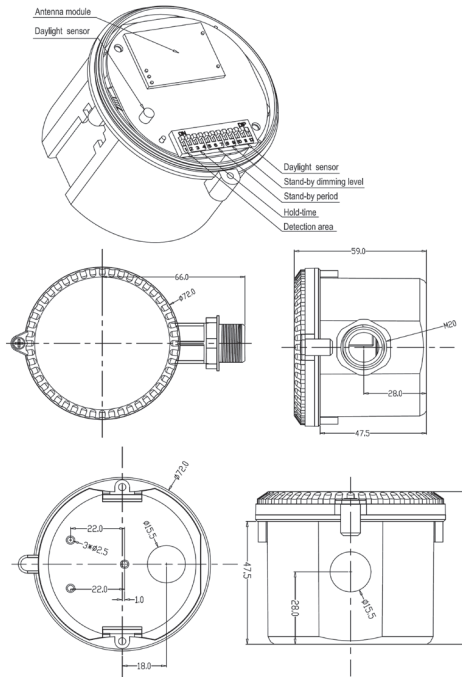
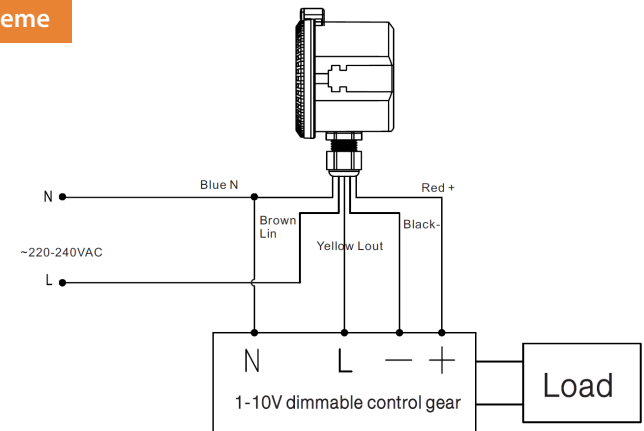




Wiring scheme



Wiring scheme



Summary

Operating voltage	120-277vac, 50Hz/60Hz
Rated load	400W@120vac, 800W@220-277vac (inductive) 800W@120Vac, 1200W@220-277Vac (resistive)
HF system	5.8GHz±75MHz, ISM wave band
Transmitting power	<0.5mW
Power consumption	≤0.8W(standby), <1.5W(operation)
Detection zone	max (D x H): 52ft x 49ft
Detection sensitivity	100% / 50%
Hold time	5s / 30s / 90s / 3min / 20min / 30min
Daylight sensor	50lux / 100lux / 200lux / Disable
Standby period	5s / 5min / 10min / 30min / 1h / Disable
Standby dimming level	10% / 20% / 30% / 50%
Mounting height	49ft max
Motion detection	0.5-3 m/s
Detection angle	150° (wall installation), 360° (ceiling installation)
Operating temperature	-31°F - +158°F