Sensor

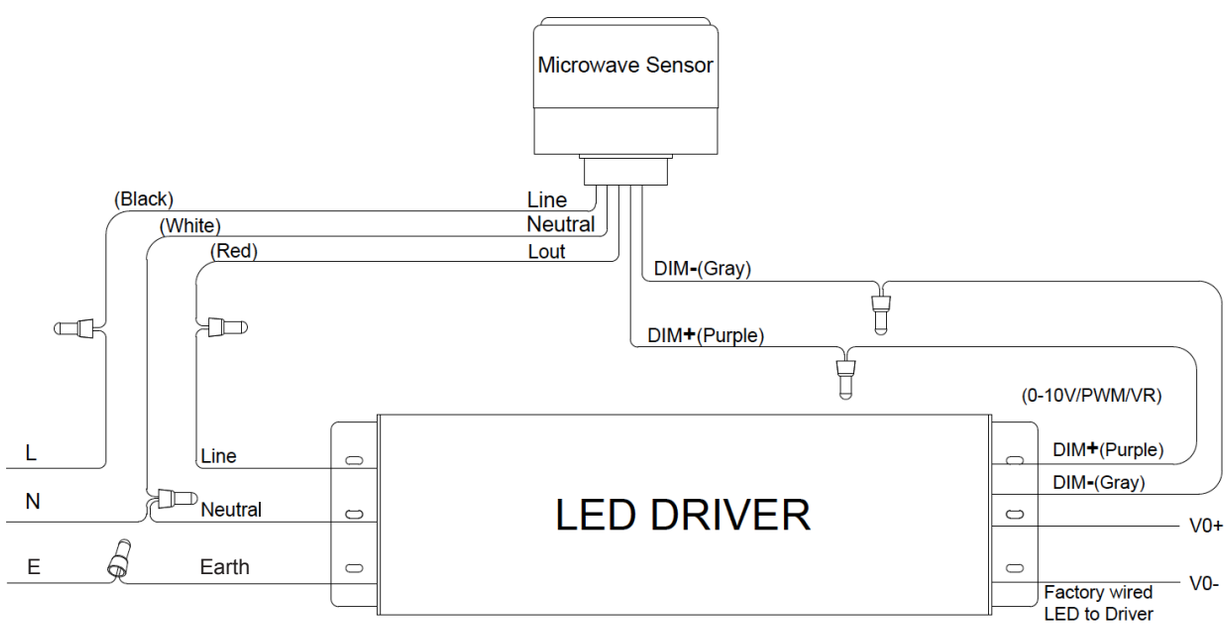
ML-HB-MSC-1

Microwave sensor with bracket suitable for use with high bays and NOX V3 models. Comes with 1-10V outputs to dim and control lighting to maximum efficiency. Comes with remote for easy programming from a distance.

Wide range of working voltage (100~277VAC)
Built-in sunlight sensor
Built-in dimming function to easily adjust the luminance of fixtures
The function can be set by IR remote controller
Wide detection range and 10M maximum installation height

5 year warranty

	ML-HB-MSC-1
Input voltage:	100-277VAC 50/60Hz
Detection area:	Max 10m installation heights. Max 16m coverage areas
Hold time:	5s / 2min / 5min
Sensor principle:	Microwave motion detector
Microwave frequency:	5.8G±75MHz,ISM wave band
Turn on brightness:	30-60Lux (Reference value)
Turn off brightness:	100-150Lux (Reference value)
Detection angle:	150°(wall installation), 360°(Ceiling installation)
Motion detection:	0.5~3m/s
Operating temperature:	-35℃~60℃
IP Rating:	**IP65**



Hibernation - the sensor stops working and goes into hibernation. Press any other key to re-enter the working. Press any other key to realize the function of the key itself.		Test Test Button 6S	Reset Factory Reset
Mode1 100%+0%/100%+2min	Mode2 100%+20%/100%+2min	Mode3 50%+0%/100%+2min	Mode4 50%+20%/100%+2min
100% 75% 50% 25% Sensitivity setting of microwavesensor (Keys only work in microwave mode)			
50%/100% 30%/100% 20%/100% 0%/100% Microwave mode / Microwave Setting			
50LUX 100LUX 200LUX Photocell threshold value setting			Cancel photocell mode, but invalid in timer Mode and Bucket mode
5s 2min 5min 10min Duration time Setting after microwave trigger (Keys only work in microwave mode)			
0s 1min 5min 10min 30min ∞ Standby time setting of microwave mode (Keys only work in microwave mode)			Dim/Time Dim/Time Time Bucket mode 1,2 (Keys only work with photocell mode)
30% 60% 80% 100% Fixed mode / Luminance setting			
3H 6H 9H Timer mode setting (Keys only work with photocell mode)			Cancel timer mode

Sensor sensitivity: 

1. Key- The Max detection distance of microwave sensor is 15M.
2. Key- The Max detection distance of microwave sensor is 11M.
3. Key- The Max detection distance of microwave sensor is 7M.
4. Key- The Max detection distance of microwave sensor is 3.5M.

Duration time:

1. 5S 5S key-lasting time
2. 2min 2min key-lasting time
3. 5min 5min key-lasting time
4. 10min 10min key-lasting time

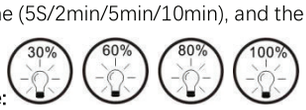
Microwave mode: 

1.No Motion was detected continuously, the light will turn off after the duration time(5S/2min/5min/10min), and the light will remain 100% luminance if motion is detected.

2.No motion detected continuously, the light luminance will drop to 20% after the duration time (5S/2min/5min/10min), and the light will remain 100% luminance if motion is detected.

3.No motion detected continuously, the light luminance will drop to 30% after the duration time (5S/2min/5min/10min), and the light will remain 100% luminance if motion is detected.

4.No motion detected continuously, the light luminance will drop to 50% after the duration time (5S/2min/5min/10min), and the light will remain 100% luminance if motion is detected.

Fixed mode: 

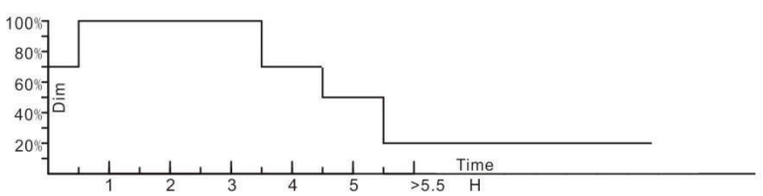
1.The light stays at 30% luminance

2.The light stays at 60% luminance

3.The light stays at 80% luminance

4.The light stays at 100% luminance

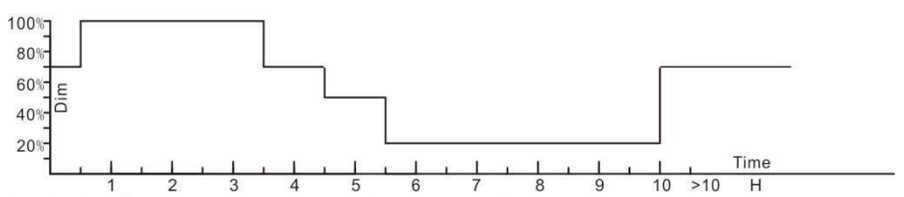
Time Bucket mode 1: 



The luminance of the light changes with the time bucket. The internal timer starts timing or reset with the ambient luminance under working conditions.

The luminance is 70% in 0.5H, 0.5H-3.5H is 100%, 3.5H-4.5H is 70%, 4.5H-5.5H is 50%.Then turn off the light when the luminance is 20% until the environment is bright.

Time Bucket mode 2: 



The luminance of the light changes with the time bucket. The internal timer starts timing or reset with the ambient luminance under working conditions.

The luminance is 70% in 0.5H, 0.5H-3.5H is 100%, 3.5H-4.5H is 70%, 4.5H-5.5H is 50%, 5.5H-10H is 20%.Then turn off the light when the luminance is 70% until the environment is bright.

Timing mode: 

1. The internal timer starts timing or reset with the ambient luminance under working conditions, Turn off the lights after 3H

2. The internal timer starts timing or reset with the ambient luminance under working conditions, Turn off the lights after 6H

3. The internal timer starts timing or reset with the ambient luminance under working conditions, Turn off the lights after 9H

Cancel timing mode: 

Timing mode 3H / 6H / 9H Failure.

Test button: 

TEST-Press the button, the red indicator light is on, keep 10% brightness for 1S then entering the induction state,after sense the movement of t he object,the light brightness turn to 100%. After testing for 6S,the test mode is automatically exited, and the red indicator light is off.

Photocell mode： 

1. Set the photocell threshold value ambient luminance is about 50Lux.

2. Set the photocell threshold value ambient luminance is about 100Lux.

3. Set the photocell threshold value ambient luminance is about 200Lux.

When ambient luminance is below the threshold,the product enters working state,and run according to the setting mode. When ambient luminance is over the threshold, infrared ray in the environment reaches the inherent threshold of the product, the product enter non-working state, the light is off.

Turn off Photocell mode： 

1.Photocell mode 50Lux /100Lux /200Lux is failure, The change of ambient luminance has no effect on the working state of the controller.

Stand-by time：

1. 0S 0S key-Set standby time as 0S

2. 1min 1min key-Set standby time as 1Min

3. 5min 5min key-Set standby time as 5Min

4. 10min 10min key- Set standby time as 10Min

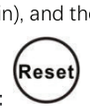
5. 30min 30min key-Set standby time as 30Min

Standby mode only be activated in microwave mode with 20%-100% 30%-100% 50%-100%

For example, when the microwave mode is 20% - 100%, no motion state is detected continuously, and the holding time is up to (5S / 2min / 5min)The brightness of the light will be reduced to 20%, and no motion state is detected continuously. When the standby time is up (0s / 1min / 5min / 10min / 30min), the light will be turned off. If motion state is detected, the light will maintain 100% brightness.

6. Cancel the standby mode 

For example microwave mode 20%-100% No motion detected continuously, the light luminance will drop to 20% after the duration time (5S/2min/5min), and the light will remain 100% luminance if motion is detected.

factory reset: 

1.The operation of remote has memory function resume to default setting

1.Factory default mode is 2min 0%-100% 100% 50LUX Cancel timing mode Cancel the standby mode

2.Time Bucket mode/fixed mode/microwave mode can only be activated in one mode at the same time.

3.Time Bucket mode, Timer mode can only work in photocell mode and in outdoor environments with alternating light and dark.

Sensor

ML-MSC-1

SENSOR
ML-MSC-1

INSTALLING ML-MSC-1 ONTO HIGHBAY

1. Install the sensor into the junction box housing by pushing the thread into the plastic housing and tightening the nut onto the thread from the inside of the box.
2. Install the high bay dimmer wire and high bay input power cable into the junction box through the glands on one side (not the back) and tighten when the length is correct for termination.
3. Wire the sensor according to the wiring diagram.
4. Install the sensor box cover in place.
5. Install the sensor box in place making sure to use the correct M5 screw to fix it into place.
6. If safe to do so, power the unit up and program using the supplied remote