

# Microwave Bi-Level Motion Sensor for CBT22 & CBT24 Troffers

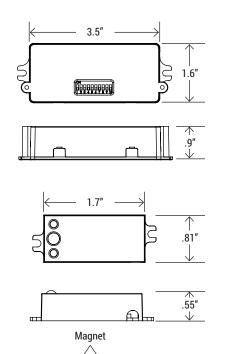
Project Name: Notes: Date: Type:



#### DESCRIPTION

The CBT-MMS is a fully dimmable microwave motion sensor allows a full range of control, including standby time, hold time, daylight harvesting, and sensitivity detection.

The CBT-MMS is a moving object sensor than can detect range of 360° and it's working frequency is 5.8 GHz, and adopts a microwave sensor (high-frequency output <0.2mW), so that it is safe and performs better than infrared sensor.



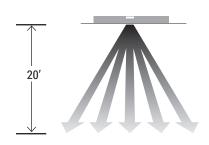
TECHNICAL SPECIFICATIONS			
OPERATING VOLTAGE	120-277VAC, 50Hz/60Hz		
MAX LOAD @-40°F~+158°F (-40°C~+70°C)	Resistive/Tungsten - 600W@120V Electronic Ballast (ED) - 800VA@120V 1200VA@277V		
DIM CONTROL OUTPUT	0-10V, max. 25mA sinking current		
MICROWAVE FREQUENCY	5.8GHz CW		
MICROWAVE POWER	<0.2mW		
MOUNTING HEIGHT	Max. 20 ft		
DETECTION RADIUS	Max. 26 ft		
DETECTION ANGLE	360°		
HUMIDITY	Max. 95% RH		
OPERATING TEMPERATURE	-40°F~+158°F (-40°C~+70°C)		

#### **NOTE**

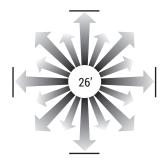
The high-frequency output of this sensor is <0.2mW, that i just one 5000th of the transmission power of a mobile phone or the output of a microwave oven.

#### **SENSOR COVERAGE**

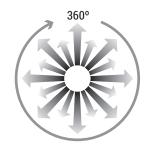
(For easy placement)



Installation Height: Max. 20 ft



Detection Radius: Max. 26 ft



Detection Angle: 360°



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#### **FUNCTION AND OPTIONS**

#### **DAYLIGHT HARVESTING FUNCTION**

A control method based on the control of artificial light with available natural light. The purpose is to control the output of artificial light according to the change of natural light, while ensuring that the illumination of the target space does not change to maintain a certain illumination.

#### **ON-OFF FUNCTION**

Switch on the lamp on detection of movement, and switch off after a hold time when there is no motion detected. As built-in daylight sensor can read brightness value, the sensor does not switch on the lamp if with sufficient natural light.

The lamp will not switch on when natural light is sufficient, even there is motion detected.



The lamp switches on automatically with presence when natural light is insufficient.



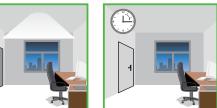
The lamp turns on at full or dims to maintain the lux level. The lamp output regulates according to the level of natural light available.

#### **OPERATION:**

NOTE: Warm up time is 15seconds. After the sensor connects input power, the light will keep on 15seconds, then go to dimming to work normally.

**NOTE:** Factory Default Setting: 100% sensitivity, Hold on time: 10seconds, Daylight sensor is 30lux, Dimming level: 30%, Dimming time: 60minutes.

NOTE: Any setting changed by DIP Switch or remote control, the light that sensor connect will on/off as confirm.

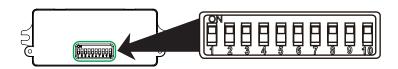


The lamp dims to standby period after hold-time and stays on selected minimum dimming level.



completely after the stand-by period.

#### PARAMETER SETTING BY DIP SWITCH



#### **DETECTION RANGE SETTING (SENSITIVITY)**

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





#### **HOLD TIME SETTING**

The lamp can be set to stay ON for any period of time between approx.10sec and a maximum of 15min. Any movement detected before this time elapse will re-start the timer. It is recommended to select the shortest lime for adjusting the detection zone and for performing the walk test. Switch location and hold lime of the corresponding table is as follows:

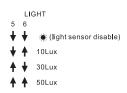




#### LIGHT-CONTROL SETTING

The chosen lamp response threshold can be infinitely from approx. 10-501ux, switch location and light-control of the corresponding table is as follows:





#### **LIGHT-CONTROL SETTING**

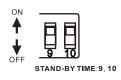
The chosen lamp response threshold can be infinitely from approx. 10-501ux, switch location and light-control of the corresponding table is as follows:





#### STAND-BY TIME SETTING

File of switch location and stand-by time setting as follow:







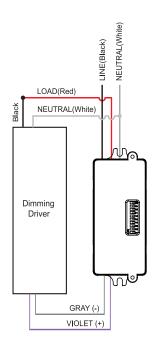
# **CBT-MMS**

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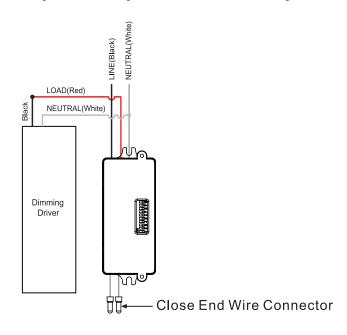
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#### **WIRING DIAGRAMS**

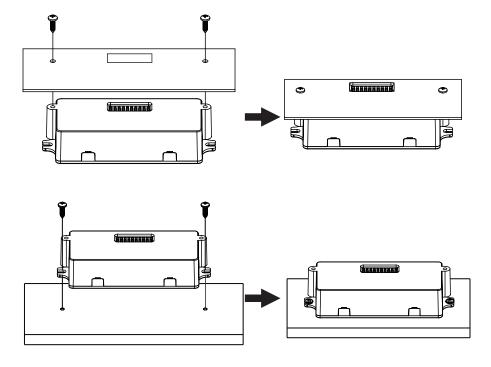
Wiring with dimming ballast or LED driver. Dimming Driver



Wiring with non-dimming ballast or LED driver. Non-Dimming Driver



#### **INSTALLATION**



# PARAMETER SETTING BY REMOTE CONTROL IN MANUAL OF MS100



Motion Sensor Remote Control (Needed to program motion sensor, sold separately)