

Technical Data

TYPICAL APPLICATIONS

- Individual Control of Fluorescents
- T-5 Technology
- T-8 Technology
- Bi-ax Technology

SENSOR HIGHLIGHTS

- Up to 45 Foot Mounting
- 360° Coverage
- Self-Contained Relay

FEATURES

- Adjustable Time Delay: 0.5 to 20 min
- Green LED Activity Indicator

SPECIFICATIONS

- Size: 3" x 3" x 1.34" Deep
- Color: White
- Mounting: 1/2" Knockout
- Relative Humidity: 20 to 90% non-condensing
- Operating Temperature: 14° to 160° F
- Storage Temperature: -14° to 160° F
- 120 VAC @ 800 W
- 220-277 VAC @ 1200 W
- 347 VAC @ 1500 W
- Frequency: 50/60 Hz
- UL and CUL 3D62 Listed
- 5-Year Warranty
- Made in USA

LOW TEMP/HIGH HUMIDITY

- Conformally Coated PCB
- Operates down to -40° F
- Corrosion resistant from moisture

CMRB-6 Series



New

High Bay Lighting Control made simple with the New *CMRB-6* Sensor! This self contained Line Voltage Sensor was specifically designed to mount on the end of a linear fluorescent fixture. It's power wiring feeds through a 1/2 inch chase nipple, and is keyed to easily mount through a half inch knockout. Accepting 120 thru 347 VAC, this one sensor is all you need. With mounting heights up to 45 Feet, this sensor is perfect for High Bay Lighting Controls. High Humidity or Cold damp environments are handled by the optional "-LT" version. In applications with abundant natural light, consider adding the "-P" built-in photocell.

RELATED APPLICATIONS

It's unique coverage pattern overlaps that of most HID, T-5, or multi CF Warehouse fixtures. For multiple fixture control, refer to low voltage CM-6 and/or HM-10 High bay aisle sensors with Power Packs. For HID bi-level applications, refer to the CMR-6 and HMR-10 sensors.

SENSOR OPERATION

Sensor Switch uses PIR technology in combination with a Fresnel Lens to detect temperature changes as an occupant moves within the sensor's field-of-view. This change in the infrared energy level is seen by the detector to turn the lights "On". Every time movement is detected, the time-delay circuit resets itself. The time delay is adjustable from 0.5 to 20 minutes, and can be adjusted manually with the precision tool provided. After the sensor's time-delay circuit expires, the lights turn "OFF". The delay is factory set at approximately 10 minutes. To select a longer time delay, turn the potentiometer clockwise.

TYPICAL APPLICATION

The *CMRB-6* is mounted to or adjacent to each light fixture. As the occupant approaches from 15 to 20 feet underneath each light fixture, the *CMRB-6* turns "ON" that fixture and keeps it "ON" for the time delay period. Lighting in aisle ways are then staged up and down as needed maximizing energy savings.

PHOTOCELL/DAYLIGHT OVERRIDE OPTION

The Photocell override option (-P) is used in spaces where abundant natural light is available. Once the sensor turns "ON", the photocell is overridden so that the lights will not cycle from the artificial light source.

Note: Heat producing sources controlled by the sensor must not be in the view pattern of the sensor. Symptom: Sensor cycles or appears to continually stay "On". Solution: Move sensor or mask lens segments that view the source.

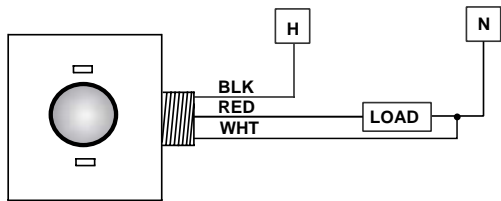
CATALOG INFORMATION

MODEL#	DESCRIPTION	TEMPERATURE
CMRB-6	Line Voltage High Mounting Box Sensor	14° to 160° F
CMRB-6-P	Line Voltage High Mounting Box Sensor w/Photocell	14° to 160° F
CMRB-6-LT	Line Voltage High Mounting Box Sensor for Lo Temp/Hi Humidity	-40° to 160° F
CMRB-6-P-LT	Line Voltage High Mounting Box Sensor w/Photocell for Lo Temp/Hi Humidity	-40° to 160° F

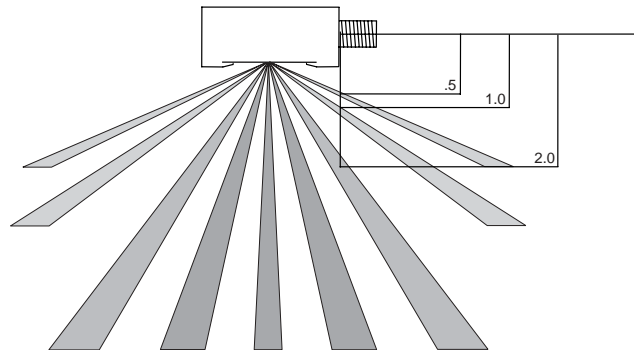
TYPICAL WIRING DIAGRAM (DO NOT WIRE HOT)

Note: Once installed, the sensor may take up to 3 minutes to become active. If the sensor loses power, the internal relay will latch to "ON". Once the power is restored, the sensor will immediately turn "ON", then time out based on the delay setting. An override switch may be installed before (BLK wire) or after (RED wire) the sensor. Neutral **must** be connected or the lights will not shut "OFF" and the green LED activity indicator will not flash. If the lights remain "OFF" after initial installation, set the timer to minimum, exit the area and reenter after the timer expires; lights should turn "ON".

3 MINUTE WARM-UP

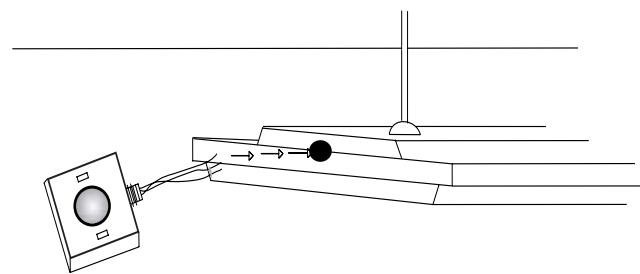
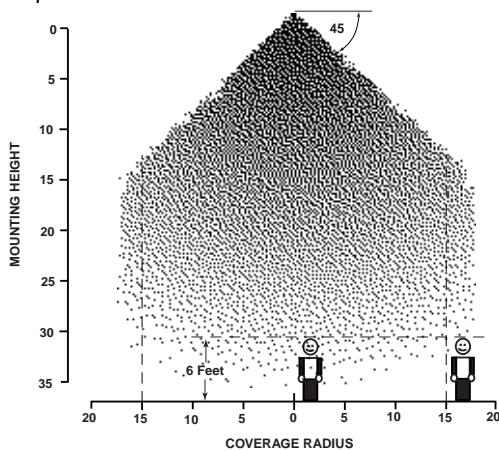


STANDARD WIRING DIAGRAM



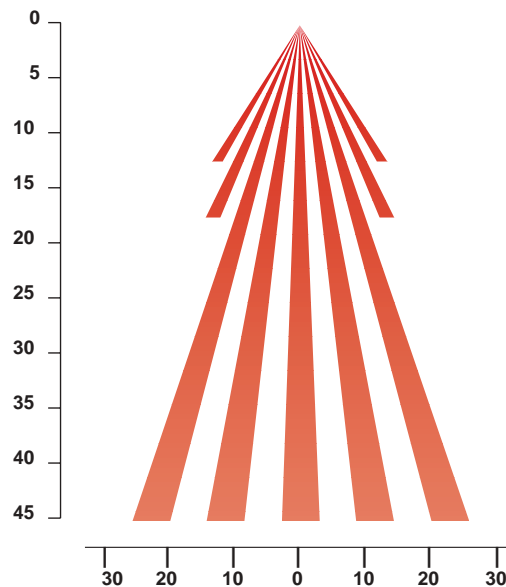
TYPICAL MOUNTING

The *CMRB* mounts in a half-inch knock out hole on the side of a fixture. The sensor's field-of-view maybe partially blocked by the fixture housing; refer to drawing above to ensure proper clearance. At High Mounting Heights, the outer beams are not used, and therefore as long as the sensor is mounted within 1.75 inches from the bottom of the fixture, the sensor's view will not be impaired.



FIELD OF VIEW

The *CMRB-6* lens actually views in 5 separate 360° coneshaped patterns. The outermost (fifth) cone viewing at a 54° angle is only effective up to a 12-15 foot mounting height and is therefore not typically considered in High Bay applications. The fourth cone views at a 45° angle and is effective up to 20 feet. The inner three cones viewing at a maximum 30° angle continually maintain their effectiveness. The geometric effect is that the *CMRB-6* maintains a 30 to 50 foot pattern up to a 45 foot mounting height. From 35 to 45 feet, the *CMRB-6* will generally only detect major motions such as walking or a forklift truck. However, in colder environments, the *CMRB-6* may maintain very sensitive detection in all cones up to greater heights.



WARRANTY: Sensor Switch, Inc. warrants these products to be free of defects in manufacture and workmanship for a period of sixty months. Sensor Switch, Inc., upon prompt notice of such defect will, at its option, provide a Returned Material Authorization Number and a replacement product.

LIMITATIONS AND EXCLUSIONS: This Warranty is in lieu of all other representation and expressed and implied warranties (including the implied warranties of merchantability and fitness for use) and under no circumstances shall Sensor Switch, Inc. be liable for any incidental or consequential property damages or losses.

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Manufacturing

Area type: Manuf Floor. Logger: 22134. Time delay 10 minutes. Energy Wise Lighting, Judd Wire Corp.

Energy Analysis

Data by Day of Week

Sun	Total Log Time	Hours/Day	Logged Lites On	Normlzd Lites On per Day	Logged Occ	Normlzd Occ per Day
Peak	48.000	24.000	4.350	2.175	0.933	0.467
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	48.000	24.000	4.350	2.175	0.933	0.467

Tue	Total Log Time	Hours/Day	Logged Lites On	Normlzd Lites On per Day	Logged Occ	Normlzd Occ per Day
Peak	57.717	24.000	57.717	24.000	27.233	11.324
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	57.717	24.000	57.717	24.000	27.233	11.324

Thu	Total Log Time	Hours/Day	Logged Lites On	Normlzd Lites On per Day	Logged Occ	Normlzd Occ per Day
Peak	72.000	24.000	72.000	24.000	35.217	11.739
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	72.000	24.000	72.000	24.000	35.217	11.739

Sat	Total Log Time	Hours/Day	Logged Lites On	Normlzd Lites On per Day	Logged Occ	Normlzd Occ per Day
Peak	48.000	24.000	28.783	14.392	10.767	5.383
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	48.000	24.000	28.783	14.392	10.767	5.383

Mon	Total Log Time	Hours/Day	Logged Lites On	Normlzd Lites On per Day	Logged Occ	Normlzd Occ per Day
Peak	48.000	24.000	41.067	20.533	21.767	10.883
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	48.000	24.000	41.067	20.533	21.767	10.883

Wed	Total Log Time	Hours/Day	Logged Lites On	Normlzd Lites On per Day	Logged Occ	Normlzd Occ per Day
Peak	72.000	24.000	72.000	24.000	35.833	11.944
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	72.000	24.000	72.000	24.000	35.833	11.944

Fri	Total Log Time	Hours/Day	Logged Lites On	Normlzd Lites On per Day	Logged Occ	Normlzd Occ per Day
Peak	61.167	24.000	61.150	23.993	28.700	11.261
Off	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000
Total	61.167	24.000	61.150	23.993	28.700	11.261

	Logged Totals			Normalized Totals		
	Lites On	Occupied	Logged	Lites On	Occupied	% Savings
Peak	337.067	160.450	406.883	139.173	66.249	52.4%
Off Peak	0.000	0.000	0.000	0.000	0.000	0.0%
Sh 1	0.000	0.000	0.000	0.000	0.000	0.0%
Sh 2	0.000	0.000	0.000	0.000	0.000	0.0%
Total	337.067	160.450	406.883	139.173	66.249	52.4%

Normalized Data

	Sun		Mon		Tue		Wed		Thu		Fri		Sat	
	LO	Occ	LO	Occ	LO	Occ	LO	Occ	LO	Occ	LO	Occ	LO	Occ
Peak	2.175	0.467	20.533	10.883	24.000	11.324	24.000	11.944	24.000	11.739	23.993	11.261	14.392	5.383
Off Peak	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sh 2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	2.175	0.467	20.533	10.883	24.000	11.324	24.000	11.944	24.000	11.739	23.993	11.261	14.392	5.383

	Logged Totals			Normalized by Day	Normalized Weekly Totals		
	Lites On	Occupied	Logged		Lites On	Occupied	% Savings
Peak	337.067	160.450	406.883	^^^	139.173	66.249	52.4%
Off Peak	0.000	0.000	0.000		0.000	0.000	0.0%
Sh 1	0.000	0.000	0.000		0.000	0.000	0.0%
Sh 2	0.000	0.000	0.000		0.000	0.000	0.0%
Total	337.067	160.450	406.883		139.173	66.249	52.4%

