

TYPICAL APPLICATIONS

- Daylight Harvesting
- Continuous Dimming of 0-10 VDC Dimmable Ballast

FEATURES

- Line Powered, no Power Pack needed
- Digital Set-Point Control
- Programmable via simple push-button commands
- Dimming sinks up to 20 mA
- Green LED Activity Indicator
- 100 Hr Lamp Burn-in Timer Mode

AVAILABLE OPTIONS

- 347 VAC (-3)
- Low Temp/Hi Humidity (-LT)

SPECIFICATIONS

- Size: CMRB: 3 5/8" x 3 5/8" x 1 1/4" (9.2 cm x 9.2 cm x 3.175 cm)
CMR: 4.55" Dia., 1.55" Deep (11.56 cm Dia., 3.94 cm Deep)
- Weight: 5 Oz (CMRB), 5 Oz (CMR)
- Sensor Color: White
- CMRB Mounting: 1/2 inch knockout
- CMR Mounting: Round Fixture Box or Single Gang Handy Box
- Relative Humidity: 20 to 90% non-condensing
- Operating Temp: 14° to 160° F (-10° to 71° C)
- Storage Temp: -14° to 160° F (-26° to 71° C)
- Load Rating:
800 W @ 120 VAC
1200 W @ 277 VAC
1500 W @ 347 VAC
- 1/4 HP Motor Load
- Frequency: 50/60 Hz
- UL, CUL, and Title 24 Compliant
- 5 Year Warranty
- Made in U.S.A.
- **LOW TEMP/HI HUMIDITY(-LT)**
- Conformally coated Circuit Board is corrosion resistant from moisture
- Operates down to -40° F (-40° C)

CMR-ADC CMRB-ADC

w/ Auto Set-Point
Programming!



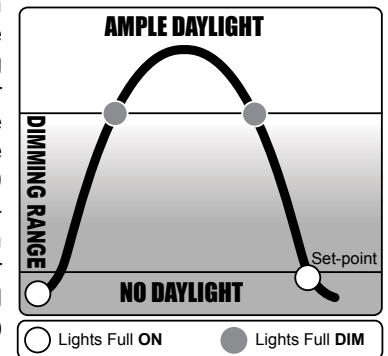
The *CMR(B)-ADC Series* of Automatic Dimming Control sensors provide continuous control of dimmable ballasts for daylight harvesting applications. Ideal for public spaces with windows like vestibules, corridors, or bathrooms; the *CMR(B)-ADC* works by monitoring daylight conditions in a room, then controlling a 0-10 VDC dimmable ballast so as to insure that adequate lighting levels are maintained. The *CMR(B)-ADC* sensors are line powered and therefore do not require a Power Pack. The *CMR* version sensors are ceiling mounted, while the *CMRB* versions are specifically designed to mount on the end of a linear fluorescent fixture. To add full On/Off switching to the dimming control provided by the *CMR(B)-ADC*, see the Technical Data Sheet on the *CMR(B)-PC-ADC* sensor.

LIGHT LEVEL SET-POINT

The sensor functions by comparing the amount of daylight available with a defined acceptable lighting level. This threshold is called the "set-point" and is utilized in all daylight harvesting lighting control decisions. The sensor can find its optimum set-point via the **Automatic Set-Point Programming** mode. In this mode, the sensor takes light readings at different dim settings and then sets the minimum light level to be the amount contributed by the artificial lights being controlled. It is assumed that the space is properly lit by design, however, if this is not the case the set-point may be easily adjusted to the occupant's preferences. All modes and settings are entered digitally via a push button sequence. Once programmed, the exact value of the set-point (in foot candles) can be read out from the sensor via a series of LED flashes.

AUTOMATIC DIMMING CONTROL OPERATION (-ADC)

When no daylight is available, the sensor will allow the dimmable ballast to operate at its full bright level (10 VDC). As daylight increases and begins to contribute to the overall light level of the room, the Automatic Dimming Control feature starts dimming the ballast proportionally. At the point when sufficient daylight is present to maintain the set-point without any contribution from the lights, the sensor will hold the ballast at its full dim setting (0 VDC). When daylight levels fall below the set-point again, the Automatic Dimming Control will start reducing the dim level (increasing the brightness) in order to increase the overall light level. Finally, at the point when all daylight contribution is gone, the ballast will again be at its full bright level (10 VDC). With dimming control sensors, the set-point can be easily adjusted after it has been initially programmed (via either the Automatic or Manual process) using the Incremental control feature that steps the brightness setting (voltage) up or down 10% (1 VDC) and adjusts the set-point accordingly.



Model Numbering System: [SERIES #]-[VOLTAGE]-[TEMP/HUMIDITY]

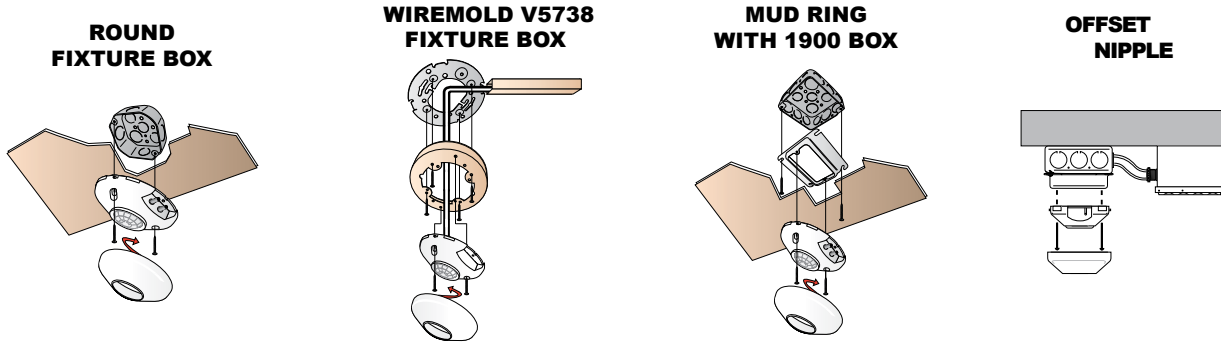
SERIES #	DESCRIPTION	VOLTAGE	TEMP / HUMIDITY
CMR-ADC	Automatic Dimming Control Photocell Sensor - Ceiling Mount, Line Voltage	Blank = 120-277 VAC -3 = 347 VAC	Blank = 14° to 160°F LT = -40° to 160° F
CMRB-ADC	Automatic Dimming Control Photocell Sensor - Fixture Mount, Line Voltage		

DIGITAL SET-POINT CONTROL

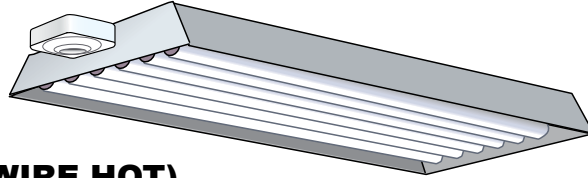
Each sensor contains a microcontroller that enables the user to engage the Automatic Set-Point Programming mode or to manually set / adjust the set-point. The manual process involves calculating and inputting the exact foot-candle value of the desired set-point into the sensor. It is important to note that the set-point is the light level required at the face of the sensor and that this value will be much different than the level required at a work surface. Typically, light levels at the ceiling are 3 to 5 times less than the work surface. For example, if 50 fc is desired at the work surface, the sensor should be set at 10 fc. For best results, measure the levels at both locations using a foot-candle meter before programming the set-point.

INSTALLATION

The ceiling (CMR) sensor enclosure accommodates mounting to a variety of junction boxes ranging in size from a single gang "Mud Ring" at a 3.28" spacing, up to a Round Fixture Box spacing of 3.5".

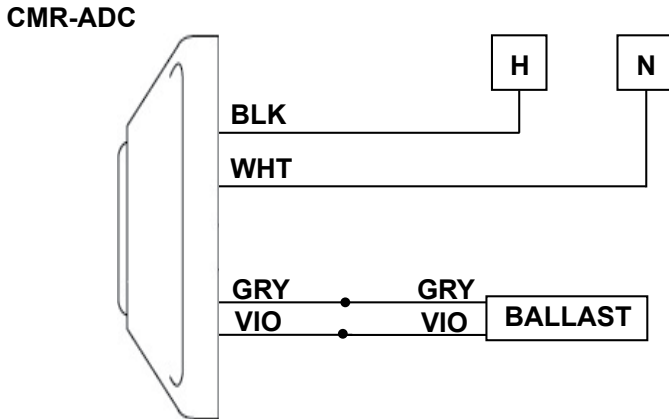


The fixture (CMRB) sensor enclosure provides an extended chase nipple that facilitates mounting to a half-inch knockout hole on the side of a fixture.



TYPICAL WIRING DIAGRAM (DO NOT WIRE HOT)

The CMR(B)-ADC sensor has one Black wire for connection to Hot (120 or 277 VAC) and a White wire for connection to neutral. The Black wire is replaced with a Red wire for 347 VAC. A Violet and Gray wire are provided for the low voltage connection to the ballast.



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