

OVERVIEW

The CM PC ADC Series combines the CM PC On/Off Photocell sensor with the CM ADC Automatic Dimming Control sensor to provide the industry's most intelligent control of lighting for daylight harvesting applications. Ideal for public spaces with windows like vestibules, corridors, or bathrooms; the sensors work by monitoring daylight conditions in a room, then controlling the lighting so as to insure that adequate lighting levels are maintained. The CM PC ADC can be used alone or as part of an occupancy sensor system. The sensors are powered with 12 to 24 VAC/VDC and typically operate with a PP-20 or MP-20 Power Pack; enabling complete 20 Amp circuits to be controlled. With optional flash programming via the Sensor Switch VLP mobile device application, the user can easily change time delay, on mode and photocontrol settings.

FEATURES

- Full On/Off Control of Lighting
- Automatically Dims/Brightens 0-10 VDC ballasts as daylight changes
- Works as Stand Alone Unit or with Occupancy Sensor System
- Capable of finding optimum set-point
- Digital Set-Point Control
- Programmable via simple push-button commands
- Outputs to Power Pack or Lighting Control System via SPDT Relay
- Dimming sinks up to 20 mA
- 100 Hour Lamp Burn-in Timer Mode

Warranty

Five-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice



*CM PC ADC
On/Off & Automatic
Dimming Photocell*



ORDERING INFORMATION

CM PC ADC		Example: CM PC ADC LT					
CM PC ADC		Dual Zone		Visible Light Programming		Temp/Humidity	
Series		[blank]	DZ	[blank]	VLP ¹	[blank]	LT
CM PC ADC	On/Off & Automatic Dimming Control Sensor - Ceiling Mount, Low Voltage	Single Zone	Dual Zone	None	Visible Light Programming	Standard	Low Temp/ High Humidity

Notes
1. Not available with DZ option

LIGHT LEVEL SET-POINT

The sensor functions by comparing the amount of daylight available with a defined acceptable lighting level. This threshold, called the "set-point", 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 preference. 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.

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. To easily adjust the set-point after it has been initially programmed (via either the Automatic or Manual process) the CM-ADC has an Incremental control feature that steps the brightness setting (voltage) up or down 10% (1 VDC) and adjusts the set-point accordingly.

WIRING

WIRING INSTRUCTIONS

Wire lead connections are Class II, 18 to 22 AWG.

STANDARD CM-PC-ADC

WHITE - Outputs high VAC/VDC (from Brown wire) when sensor calls for Lights "On" (eg. the room is Dark)

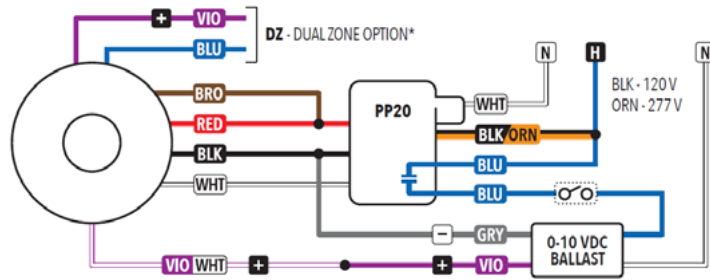
BLUE - Outputs high VAC/VDC (from Brown wire) when sensor calls for Lights "Off" (eg. adequate daylight is present)

RED - 12 to 24 VAC/VDC

BLACK - Common

BROWN - Connect to Low Voltage Control input (Red wire on a Power Pack, White wire on an occupancy sensor)

VIOLET/WHITE striped - Connect to Violet wire from Zone 1's 0-10 VDC dimmable ballast. Also connect ballast Gray wire to sensor Black wire.



DUAL ZONE OPTION (-DZ)

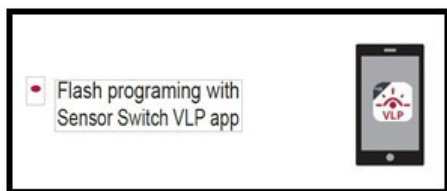
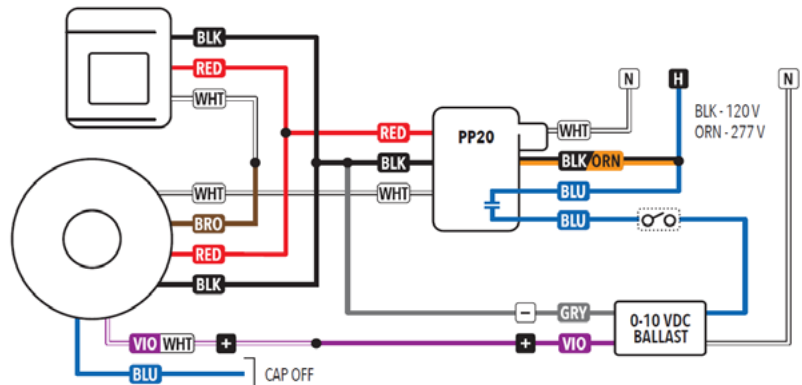
BLUE wire will output high DC when sensor calls for Lights "On" for Zone 2.

SOLID VIOLET wire connects to Zone 2's 0-10 VDC dimmable ballast. Also connect Zone 2's ballast Gray wire to sensor Black wire.

(Note: With the -DZ option the SPDT Relay is no longer present and the White wire will output only DC)

WIRING TOGETHER WITH OCCUPANCY SENSORS

Wire upstream occupancy sensor White wire to sensor Brown wire. When the space is unoccupied, the lights stay off regardless of daylight levels. However when occupied, the photocell sensor will control the lights according to daylight level and set-point.



SPECIFICATIONS

Electrical

Input Ratings	Class 2 Input 24V max, 4mA Class 2 Input 24V max, 16mA (-R Option)
Relay Type	Electrically held
Low Voltage Output Ratings	0-10VDC, Sinks <20mA
Standards/ Ratings	Energy Management Equipment, UL916 (E167435)

Mechanical

Dimensions	4.55"W x 1.55"D (116mm x 40mm)
Mounting	Single-Gang or Octagonal Box, Surface Mount
Color	White
Finish	Matte
Connection Type	Low Voltage Leads

Environmental

Warrantied Operating Temperature	Standard: 14°F to 185°F (-10°C to 85°C) LT option: -4°F to 185°F (-20°C to 85°C)
Relative Humidity	Up to 90%, Non-Condensing
Environment	Indoor
Standards/ Ratings	RoHS