

OVERVIEW

The MSD ADC series automatic dimming control photocell sensor provides continuous dimming control of 0-10 VDC dimmable ballasts or LED drivers for daylight harvesting applications. Ideal for spaces with windows like classrooms, vestibules, corridors, offices, or bathrooms; the MSD ADC works to maintain a constant overall room lighting level by controlling the connected 0-10 VDC dimmable ballast / LED driver(s) to increase or decrease their fixtures' light output level accordingly. The MSD ADC "micro" sensor is designed to be easily embedded into luminaires. For outdoor applications, the MSOD 7 ODP sensor provides both motion and daylight based control of a 0-10 VDC dimmable outdoor or wet location luminaire.

SENSOR OPERATION

When no daylight is available, the sensor will allow the dimmable ballast/driver to operate at its full bright level setting (default 10 VDC). As daylight increases and begins to contribute to the overall light level of the room, the sensor starts dimming the ballast/driver 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/driver at its full dim setting (default ~0 VDC). When daylight levels fall below the set-point again, the sensor will start increasing the brightness of the ballast/driver in order to raise the overall light level. Finally, at the point when all daylight contribution is gone, the ballast/driver will again be at its full bright level (10 VDC).

FEATURES

- Automatically Dims 0-10 VDC Ballasts/Drivers as Daylight Changes
- Auto Set-Point Calibration Mode
- Digital Set-Point Control
- Adjustable High & Low Trim
- Push-Button Programmable
- 100 hr Lamp Burn-in Timer
- Green LED Indicator

Warranty

Five-year limited warranty. Complete warranty terms located at:

www.acuitybrands.com/support/customer-support/terms-and-conditions

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

sensorswitch®

MSD ADC Automatic Dimming Control Photocell



CA®
US

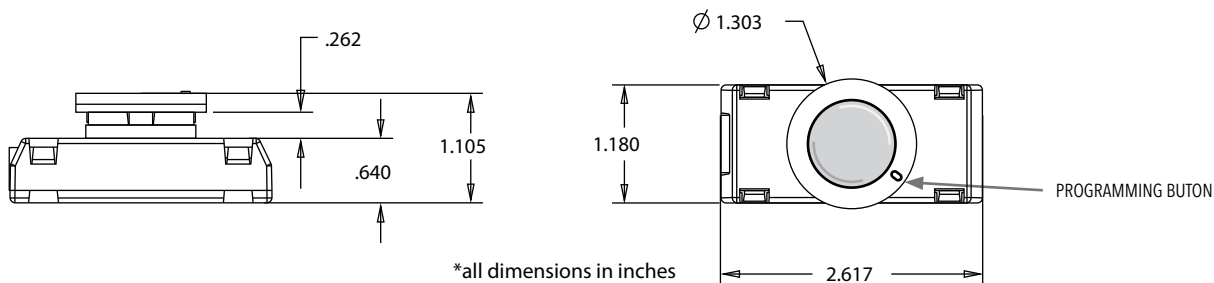
ORDERING INFORMATION

MSD ADC				Example: MSD EZ ADC VLP WH
Series	eldoLED Compatibility	Automatic Dimming Control	Color	Min Dim Level
MSD Indoor Micro Sensor	[blank] None EZ ¹ eldoLED Driver Compatible	ADC Integrated Dimming Control	WH White	0V ~0 VDC 1V 1 VDC 2V 2 VDC 3V 3 VDC 4V 4 VDC 5V 5 VDC

Notes

1. Min Dim Level default set to 1.5VDC for EZ option.

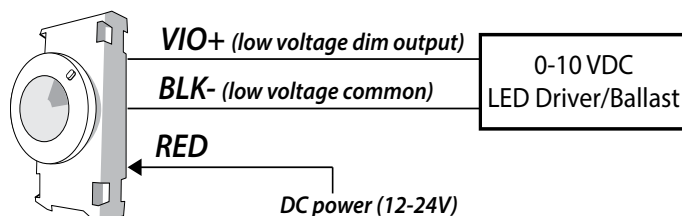
DIMENSIONS



WIRING

- RED** - 12-24 VDC Power Input
- VIOLET** - Low Voltage Dim Output (0-10 VDC)
- BLACK** - Low Voltage Common

Note: Do not connect the dimming wires of multiple sensors in parallel



INSTALLATION

MOUNTING

- If not pre-installed, locate sensor body so that detector faces down through 1.125" hole in luminaire.
- Align lens assembly legs with holes in sensor body and snap together (max material thickness 0.25").
- Apply foam spacer pads onto sensor body if needed to ensure snug fit with fixture.
- Assembly rotates 15° to enable coverage pattern adjustment after installation.
- To unsnap lens assembly, pry up under lip on sensor short sides.

DIAGRAM 1. INSTALLATION EXAMPLE

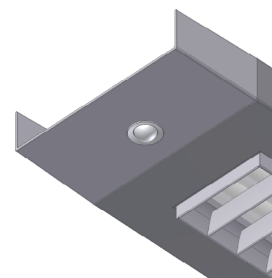
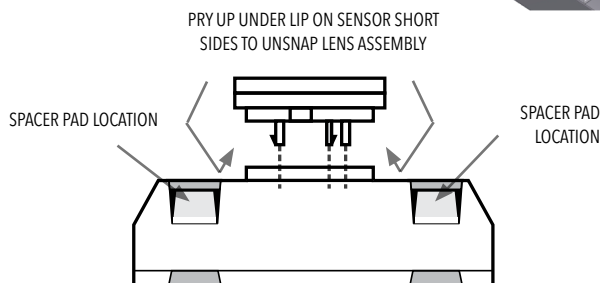


DIAGRAM 2. ASSEMBLY DETAIL



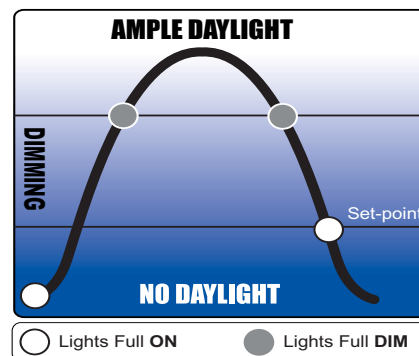
PROGRAMMING

Refer to instruction card ICO23-001 for default settings and directions on programming the sensor via the push-button (located in face of ring around lens).

OPERATION

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 with the lights on and off in order to determine how much artificial light it is controlling. It then sets the minimum light level to be this amount of artificial light being controlled. It is assumed that the space is adequately 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.



SPECIFICATIONS

Electrical	Input Ratings	12-24VDC, 4mA, Class 2
	Low Voltage Output Ratings	0-10VDC, 17mA max
	Standards/ Ratings	Energy Management Equipment, UL916 (E167435)
Mechanical	Dimensions	2.62H" x 1.18W"x 1.34D" (67mm x 30mm x 34mm)
	Mounting	Fixture Integrated Required hole size of 1.125" and material thickness of 0.25" max
	Connection Type	Low Voltage Leads
Environmental	Warrantied Operating Temperature	-4°F to 140°F (-20°C to 60°C)
	Relative Humidity	Up to 90%, Non-Condensing
	Environment	Indoor
	Standards/ Ratings	RoHS