

Zone5™ DAYLIGHT SENSOR

Installation Instructions

Hubbell Building Automation

9601 Dessau Road • Building One • Suite 100 • Austin, TX 78754
Toll Free: 888-698-3242 • Fax: 512-450-1215
www.hubbell-automation.com

DESCRIPTION

The HBA Zone5™ Daylight Sensor provides daylight level information to the Zone5 Control Module. The Daylight Sensor continuously measures daylight levels and sends this information to the Zone5 Control Module.

SPECIFICATIONS

- Supply voltage (supplied by Zone5 Control Module): 24VDC
- UL and cUL listed
- 5-year warranty

PRECAUTIONS

- **CAUTION: FOR USE WITH CLASS 2, LOW VOLTAGE SYSTEMS ONLY. DO NOT USE IN HIGH VOLTAGE APPLICATIONS.**
- Read and understand all instructions before beginning installation.
- NOTICE: For installation by a licensed electrician in accordance with National and/or local Electrical Codes.
- NOTICE: For indoor use only.
- **CAUTION: USE COPPER CONDUCTOR ONLY.**
- Confirm device ratings are suitable for application prior to installation. Use of device in applications beyond its specified ratings or in applications other than its intended use may cause an unsafe condition and will void manufacturer's warranty.
- NOTICE: Do not install if any damage to product is noticed.

INCLUDED COMPONENTS

1. Daylight Sensor with pre-installed low voltage Quick-To-Install™ (QTI) connector. The sensor's QTI connector quickly mates to the snap-in QTI connection on Green low voltage cable, available separately (*See Figure 1, 1a and 2*).

DAYLIGHT SENSOR PLACEMENT

The Daylight Sensor must be placed to see only daylight with no contribution from artificial light sources. The sensor typically mounts on the ceiling between the window and the row of fixtures closest to the window. For skylight applications, the sensor mounts in the lightwell. The sensor is aimed toward the daylight. A light meter is required for light level measurements at the task areas (*See Figure 3*).

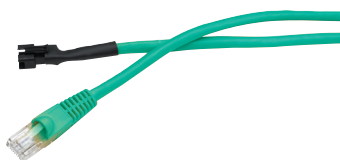
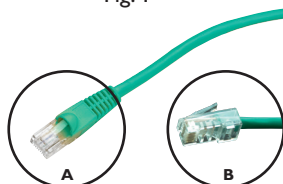


Fig. 1



(Cat cable end may look like A or B)

Fig. 1a



Fig. 2

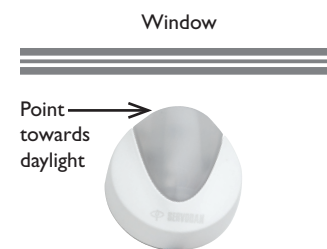


Fig. 3

INSTALLATION INSTRUCTIONS

1. The sensor's foot candle range is set via a jumper switch. Default setting: 30 – 300 FC (Typical for most applications). If the sensor's range needs to be changed, pry cover off using a screwdriver and set jumper switch accordingly. It is recommended that prior to changing the default setting, first set up the Zone5 program for Daylighting in the Zone5 Control Module (ZCM) and verify that a different range is needed. Refer to CHANGING DAYLIGHT SENSOR SETTINGS below if change is necessary.
2. Apply mounting tape to back of sensor (See Figures 4a, 4b and 4c).

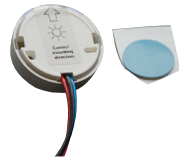


Fig. 4a



Fig. 4b



Fig. 4c

3. Attach sensor to ceiling, wall or skylight. *Note: Peak sensitivity is achieved when sensor is placed at a 45 degree angle to window (See Figure 5). When used with skylight, point sensor (lensed area) up towards daylight rather than down towards room.*



Fig. 5

4. Plug the Green CAT5 cable, available separately, into either of the two available Green connector ports on the Zone5 Control Module (See Figure 6).
5. Route the Green cable from the Zone5 Control Module to the Daylight Sensor. *Note: Low voltage wiring must be isolated from line voltage wiring. Consult National and Local Electrical Codes for conduit requirements.*
6. Plug the Green cable into the Daylight Sensor's QTI connector (See Figures 7a and 7b).
7. Perform system setup and/or programming activities as applicable in accordance with the instructions of the Zone5 Control Module.
8. Verify Daylight Sensor functionality by checking System Status/Daylight Sensor on the Zone5 Control Module. Real-time foot candle levels will be displayed if operating properly. If foot candle levels do not change, check connectivity at wiring to ZCM, Daylight Sensor and light fixture.
9. If desired, to disconnect Daylight Sensor from Green ZCM cable, press down on the upper tab on the connection (located on the Green cable side of the QTI connector). Gently pull the two sides of the QTI connector apart (See Figure 8).
10. The sensor's foot candle range is set via a jumper switch. Default setting: 3-300 FC (Typical for most applications). If the sensor's range needs to be changed, pry cover off using a screwdriver and set jumper switch accordingly. It is recommended that prior to changing the default setting, first configure one or more rows for Daylighting in the Zone5 Control Module (ZCM) and verify that a different range is needed.



Fig. 6

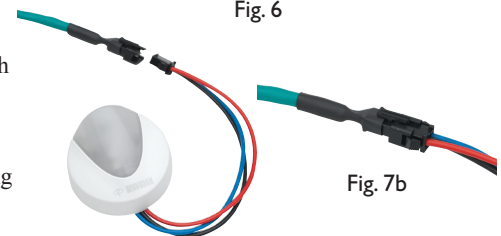


Fig. 7a

Fig. 7b

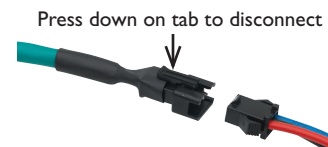


Fig. 8

CHANGING DAYLIGHT SENSOR SETTINGS

Perform these changes only if necessary to ensure proper daylight sensor interaction with the Zone5 Control Module. IN MOST CASES THE STANDARD FACTORY SETTING OF 3-300 FC WILL BE OPTIMAL. It is not recommended changes to the setting be made unless footcandle readings measured with a light meter dictate that this change is necessary. See ZCM Operating Manual for further details.

1. Gently remove cover from back of daylight sensor, taking care not to lose it (See Figures 9a and 9b).

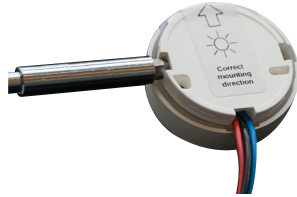


Fig. 9a

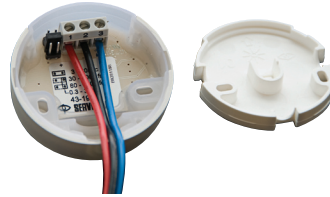


Fig. 9b

2. Change sensor setting, first remove the black pin cap. Take care not to lose the black pin cap (See Figure 10).

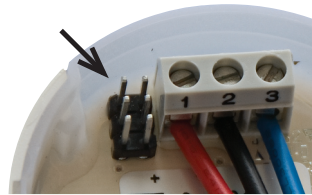


Fig. 10

3. To change setting re-insert black pin cap as shown below (See Figures 11a, 11b and 11c).

- a. To set at 30-300 FC insert black pin cap over top two pins, placed horizontally as shown (See Figure 11a).
- b. To set at 30-3000 FC, place black pin cap over center two pins, placed horizontally as shown (See Figure 11b).
- c. To set at 60-6000 FC insert black pin cap over bottom two pins, placed horizontally as shown (See Figure 11c)

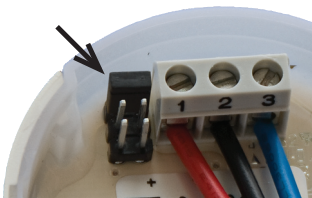


Fig. 11a

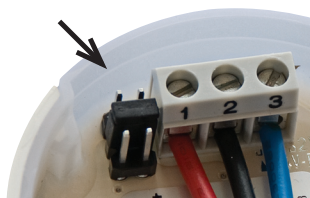


Fig. 11b

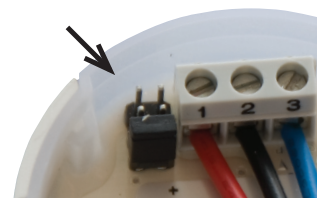


Fig. 11c



Building Automation, Inc.

Hubbell Building Automation, Inc.
9601 Dessau Road | Building One | Austin, Texas 78754
{888} 698-3242 | {512} 450-1215 fax
hubbell-automation.com
72-00453