

HUBBELL) Building Automation, Inc.

# wiHUBB® In-Fixture Module

Installation Instructions

## **Hubbell Building Automation**

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## DESCRIPTION

Hubbell Building Automation's wiHUBB In-Fixture Module (IFM) is a self-contained intelligent wireless control module. It contains either one or two independently controlled outputs. The two output version can be used for Hi/Low or alternate ballast switching. An optional 0-10 VDC output is also available for controlling dimmable ballasts and LED drivers. Each wiHUBB In-Fixture Module can control one or more fixtures and can be individually controlled or grouped with other wiHUBB devices. The wiHUBB IFM communicates securely via 900 MHz radio frequency to other devices within the wiHUBB wireless self-healing mesh network.

### **SPECIFICATIONS**

- Max Load Ratings (-1277 version)
  - 120VAC (SPST): 1200W Tungsten, Electronic and Standard Ballast
  - 277VAC (SPST): 1200W Electronic and Standard Ballast
- Max Load Ratings (-347 version)
  - 347VAC (SPST): 1500W Electronic and Standard Ballast
- Max Load Ratings (-480 version)
  - 480VAC (DPST): 2400W Electronic and Standard Ballast
- Dimming Output (Optional): 0-10VDC
- RF Frequency: 902-928MHz /AES-128 Security
- RF Range: Max. Transmission Output: +20 dBm / Max Receive Sensitivity: -118 dBm
- Operating Temp: -40°C to +90°C
- Plenum rated
- Conforms with UL916 and Certified to CAN/CSA C22.2 #61010-1
- Patents Pending
- Five year limited warranty

### PRECAUTIONS

- Read and understand all instructions before beginning installation.
- **NOTICE:** For installation by a licensed electrician in accordance with National and/or local Electrical Codes and the following instructions.
- Disconnect switch or a circuit breaker must be provided and marked as the disconnecting device.
- Disconnect switch / circuit breaker must be within reach of operator.
- CAUTION: RISK OF ELECTRICAL SHOCK. Turn power off at service panel before beginning installation. Never wire energized electrical components.
- 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.
- Use only approved materials and components (i.e. wire nuts, electrical box, etc.) as appropriate for installation.
- NOTICE: Do not install if product appears to be damaged.

## **INSTALLATION**

- 1. DO NOT DISCARD THE INCLUDED MAC ADDRESS LABELS. SEE STEP (5) BELOW.
- 2. Turn power off at the service panel.
- 3. Mount the IFM in the installation site. See Mounting Diagram below. Use 6x32 (or 8x32) pan head screws to secure the module inside the lighting fixture ballast cavity. To mount the IFM to the outside of a junction box, use the J-Box Mounting Adapter (sold separately – part number WIH-IM-ADAPTER). Insert the IFM (antenna side up) into the adapter until a click is heard. To remove the module from the adapter, insert a small blade screwdriver between the bottom-side

of the module and the adapter. Gently pry apart while pulling the IFM from the adapter.

- 4. Attach the antenna to the IFM. For fixture installations, an antenna extension cable may be required. Drill a 1/4" hole in the fixture for the antenna cable. Connect one end of cable to device. Route cable to antenna mounting hole and connect according to cable mounting diagram (See Fig. 4).
- 5. Affix a MAC address label to the outside of the fixture/device that contains the IFM. Place the second MAC address label in a log book and record the location of the fixture/device. The

## MOUNTING DIAGRAMS



Figure 1: Top View - Use 6x32 or 8x32 pan head screws



Figure 2: Bottom View

MAC address will be needed later during the system setup process.

- 6. Electrically connect the device to the fixture/circuit as shown in the Wiring Diagram below.
- 7. Reapply power at service panel.
- 8. Perform system setup and/or programming activities as applicable in accordance with the instructions of the wiHUBB Access Point or system programming device (sold separately).



Figure 4: Antenna cable mounting

#### WIRING DIAGRAM

