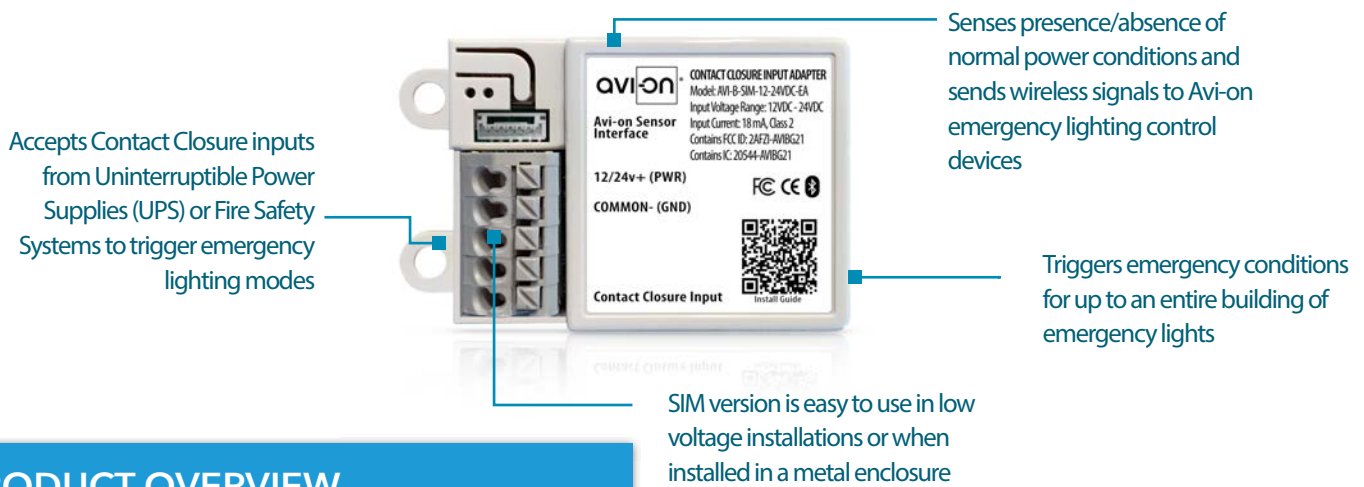


# UL 924 Normal Power Beacon

Low Cost Compliance with UL 924 2022 Emergency Lighting Requirements



## PRODUCT OVERVIEW

**Description:**

The Avi-on® UL 924 SIM normal power beacon provides a simple and cost-effective means of detecting the presence or absence of normal power to trigger emergency lighting modes. The sensor is fully approved and compliant with the 2022 UL 924 revisions. Only a single detector is needed per transfer switch. The sensor sends a wireless signal to an emergency control device wired with an emergency-enabled Avi-on XFAC (all versions) to trigger the required controls override when there is a loss of normal power. When used with the Avi-on XFAC in zone-based or individual fixture control applications, the addition of shunt relays can be completely avoided.

The contact closure input can also be connected directly to the emergency trigger output of UPS power sources, building fire and safety systems, or other contact input sources.

The UL 924 Beacon kit is comprised of an AVI-B-SIM-12-24VDC-EA with a special UL 924 Normal Power Beacon firmware and two AVI-PS-277-12-250 power supplies: one to power the SIM detector and one to provide the normal power sensing input from an AC line.

**Installation:**

Install the Beacon in a location downstream of a UL 1008 emergency/normal power transfer switch (that includes test modes) in a convenient location to connect to both emergency and normal power sources. Connect the SIM power using the included power supply to the EMERGENCY power line. Connect the contact input to the NORMAL power AC line using the included power transformer or directly to a contact closure emergency trigger source. The contact input does not have its power source. If the contact trigger does not have one, use the included power supply to introduce 12vDC to the contact circuit from the EMERGENCY power line. Install the included antenna through a 1/4" hole in the junction box. Program using Avi-on Pro or Mobile Commissioning applications.

**Applications:**

A single Normal Power Sensor can control all the emergency circuits in a network of any size. Use a Normal Power Sensor for each transfer switch if there are multiple transfer switches in the building.

## ORDERING INFORMATION

| Part Number           | Description   | Application                                 | Color |
|-----------------------|---|---|-------|
| AVI-KIT-UL924-BEACON  | AVI-B-SIM-12-24VDC-EA + 2 AVI-PS-277-12-250 + 6211ANT + UL924 Host NWK Settings | Normal Power Beacon/Emergency Light Trigger | White |
| AVI-ASSY-UL924-BEACON | UL 924 Normal Power Beacon Assembly   | Normal Power Beacon/Emergency Light Trigger | White |

To order please contact Avi-on sales at **(877) AVION-US**, (877) 284-6687 or [prosales@avi-on.com](mailto:prosales@avi-on.com) for information on becoming an Avi-on partner and order details.

|                |  |                      |  |
|----------------|--|----------------------|--|
| <b>Project</b> |  | <b>Location/Type</b> |  |
|----------------|--|----------------------|--|

## SPECIFICATIONS

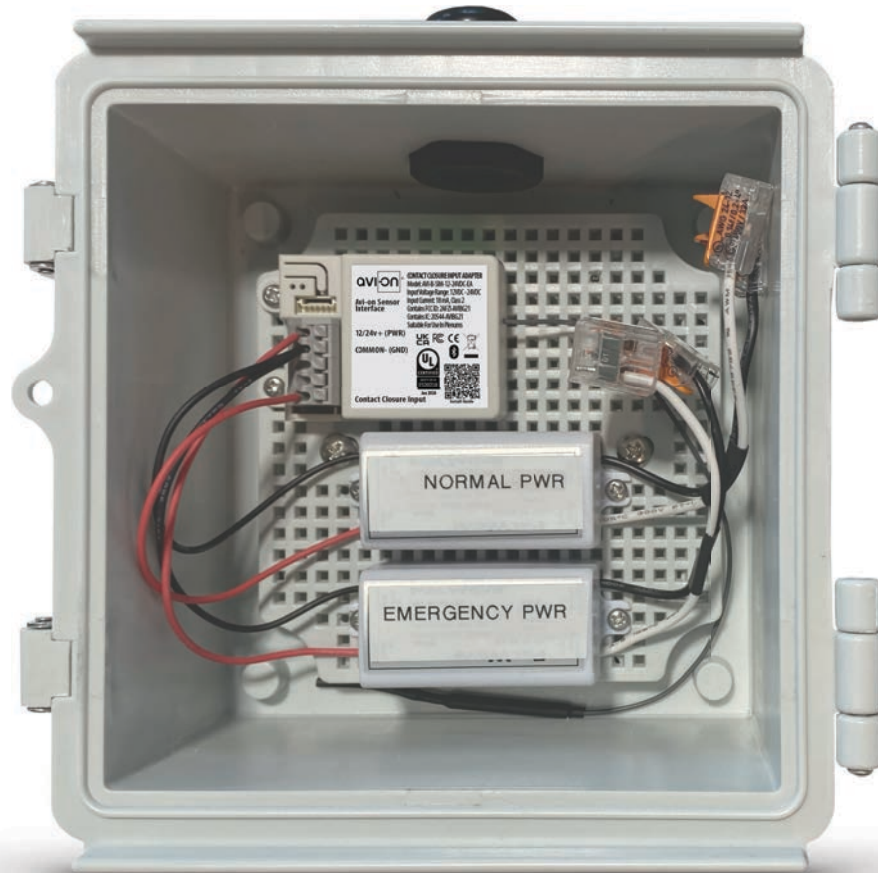
|                            |   |
|----------------------------|---|
| <b>Normal Power Sense:</b> | 12-24V or Standard Contact Closure (closed for normal power state, configurable to normally open) |
| <b>Power Consumption:</b>  | 17mA  |
| <b>Voltage Input:</b>      | 12-24VDC  |
| <b>Dimensions:</b>         | Assembly 5.9" x 5.9" x 3.5", Kit fits in a 4x4 single depth IP rated junction box                 |
| <b>Color:</b>              | White   |
| <b>Weight:</b>             | .45 oz (16g) -All components  |
| <b>Operating Temp:</b>     | -22F to +158F (-30C to +70C)*   |

\* Note: Operating controller at or above these levels may result in damage components/product

|                              |   |
|------------------------------|---|
| <b>Storage Temperature:</b>  | -40F to +185F (-40C to +85C)                        |
| <b>Humidity Rating:</b>      | 95% non-condensing                                  |
| <b>Programming:</b>          | Via Avi-on platform. Mobile, laptop, remote, local. |
| <b>Maximum groups/nodes:</b> | Unlimited   |

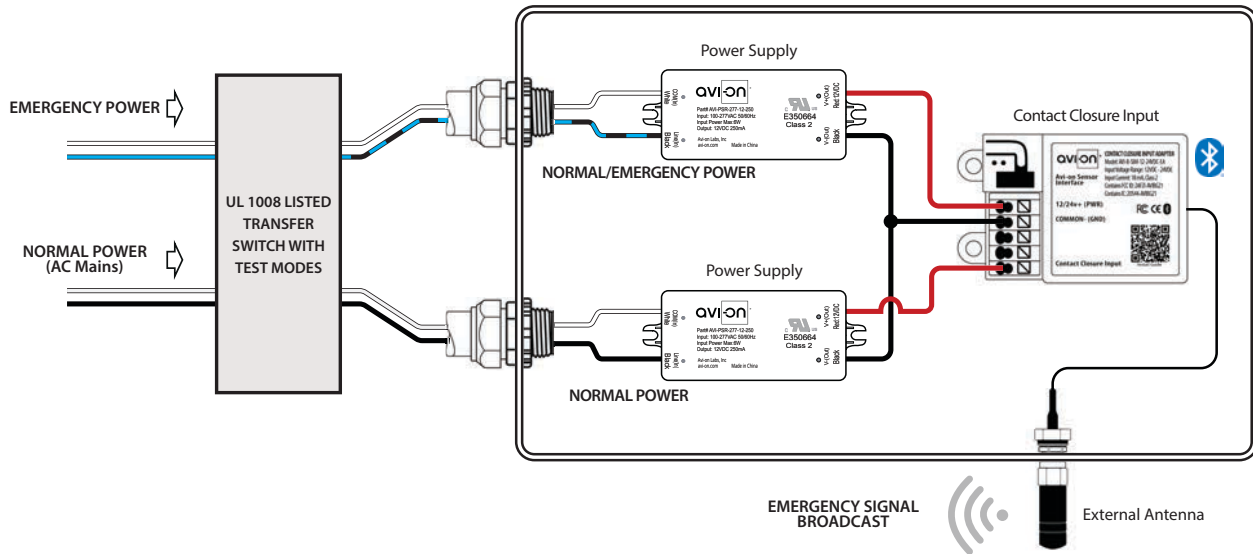
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| <b>Certifications:</b> | FCC ID: 2AFZI-AVIBG21<br>IC ID: 20544-AVIBG21<br>BQB:<br>DID: D059595<br>Qualified Design ID (QDID):<br>205509<br>178212<br>175341<br>UL: 924, 916 |
|------------------------|--|

## ASSEMBLY

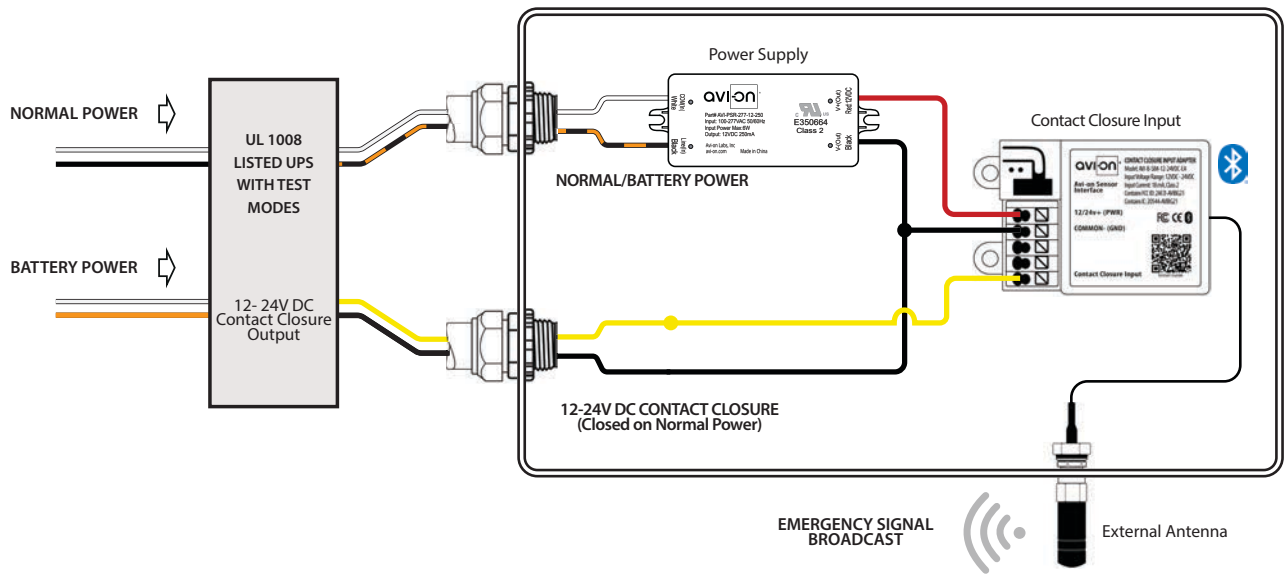


**Figure 1. UL 924 Normal Power Beacon Assembly**  
5.9" x 5.9" x 3.5"

# WIRING DIAGRAMS



**Figure 2. Typical Wiring with Transfer Switch**



**Figure 3. Typical Wiring with Always On Uninterruptible Power Supply (UPS)**

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