

# Outdoor Long-Range Microwave Sensor

## Long Range Motion Detection For Large Areas



**Fully Network Configurable**  
Program settings locally or remotely

**Long Range Sensitivity**  
Cover large open areas with a single sensor

**12-24DC Power**  
Power from an Avi-on XPP or with a low cost AC-DC power supply

**IP 65 Rated**  
Useful in outdoor applications  
Side or bottom mount

### PRODUCT OVERVIEW

Avi-on's Outdoor Long Range Microwave Sensor is suited to cover large open areas like open manufacturing and warehouse floors or large outdoor areas. When side mounted, the sensor can cover areas up to 100 wide by 250 long, allowing much fewer sensors per fixture than PIR or other sensor options. The sensor includes an Avi-on Bluetooth Radio and functions as a stand alone network component for zoned sensor applications. The sensor does not include a daylight harvesting sensor or 0-10V dimming output. IP 65 Rated

**Use it for:** Large open area motion detection side mounted up to 100ft wide covering areas up to 250 feet long where side or bottom knockout or IP rating is important. Can also be ceiling mounted up to 40 feet.

**Use other products for:**

Office, low bay, sensor per fixture, troffer behind the lens mounting: Use AVI-DC-MW.  
High bay ceiling mount with warehouse aisles or other obstructions: Use AVI-DC-PIR

**Features**

- Long range allows a single sensor to cover up to 100 ft x 250 ft
- 12-24VDC power
- Side or top knockout mount
- IP 65 outdoor rated

### ORDERING INFORMATION

Part Number	Description	Antenna	Input Voltage
AVI-SEN-MFM-24-BLE	Long Range Microwave, Side/Bottom Mount, Outdoor Rated IP65	Internal	12 - 24VDC

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>	
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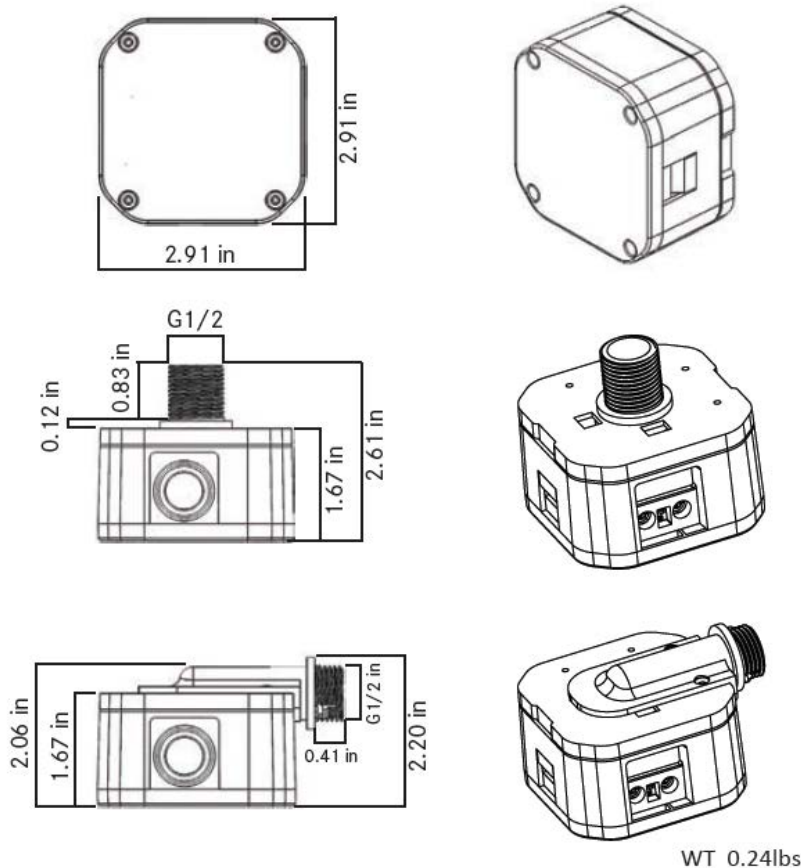
# SPECIFICATIONS

**Input Voltage:** 12-24VDC  
**Power Consumption:** 85mA  
**Sensor Frequency:** 10.525 Ghz  
**Sensor Range:** 20-40 ft (vertical mount)  
 20-150 ft (horizontal mount)  
**Size:** 2.28in x 2.28in x 1.02in  
 (58mm x 58mm x 26mm)  
**Mounting:** Screw holes (see diagrams)  
**Weight:** 3.5 oz (98g)  
**Outdoor Rating:** IP 65  
**Connection Wires:** 22 AWG  
**Operating Temperature:** -22F to +158F (-30C to +70C)  
**Storage Temperature:** -40F to +176F (-40C to +80C)  
**Humidity Rating:** 90-95% non-condensing

**Microwave Radio Freq:** 10.525 Ghz  
**Mesh Radio Freq:** 2.4GHz  
**Wireless Standard:** BLE 4.2 with Avi-on Mesh  
**Point to Point Range\*:** 80ft with obstructions and 350ft unobstructed  
**Security:** AES 128-bit encryption for device to device communication  
 AES 256-bit encryption for device to cloud communication  
**Warranty:** 5 years; 10 years optional  
**Regulatory:**  
 Network: FCC: 2AFZI-AV11010 B  
 IC: 20544-AV11010 B  
 BQB: D031801, DID: 86303  
 Sensor: FCC: ZZ0WCM-01  
 UL E341446

*\*When communicating through the mesh, range is essentially unlimited (5000ft+)*

# DIMENSIONS

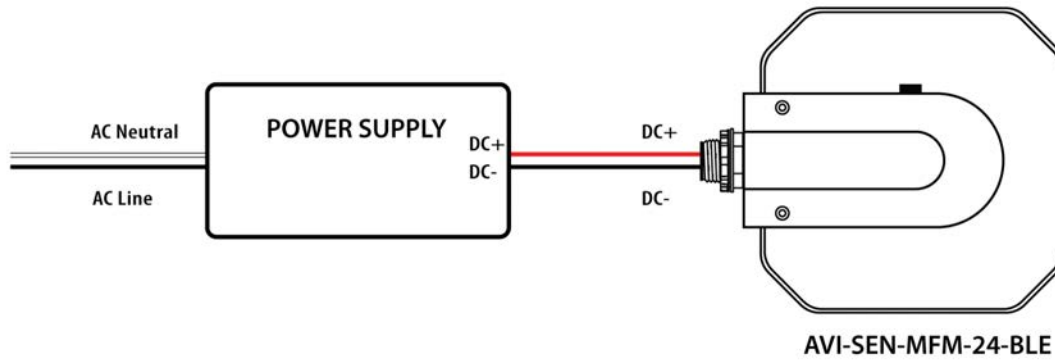


**Figure 1. Microwave Sensor Dimensions**

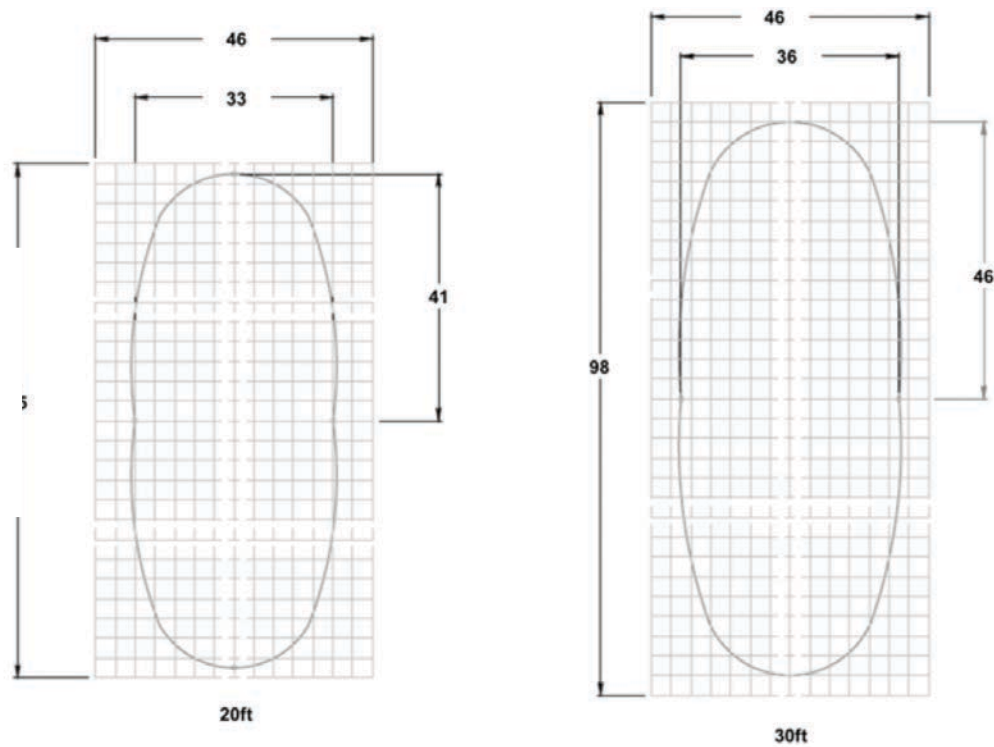


**Figure 2. Side & Top Mounting**

# DIAGRAMS



**Figure 3. Wiring Diagram**



**Figure 4. Coverage Patterns**

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