

2-Wire Surface Mount Sensor

SPECIFICATION

The Enlighted 2-Wire Surface Mount Sensor supports direct connection to 2-wire compatible drivers. The sensor is designed for indoor applications with high ceilings such as warehouses, atriums, and manufacturing facilities. Integrated sensors capture data that is both processed locally and transmitted over the Enlighted network, enabling a full suite of applications. In addition, the sensor supports Bluetooth® Low Energy communication with tags and other BLE devices.



OVERVIEW

The 2-Wire Surface Mount Sensor is a complete sensing and lighting control node powered from its attached light fixture. Sensor information combined with a configurable behavior profile makes the Surface Mount Sensor an integral component of an intelligent lighting control and sensing solution. With integrated wireless communications for data transmission and remote configuration as well as autonomous fixture-level control, this sensor brings advanced lighting automation to a whole new level.

FEATURES AND BENEFITS

2-Wire Driver Compatibility: The sensor is easily connected to compatible LED drivers, simplifying installation, reducing wiring errors, and providing plug-and-play capabilities. Compatible LED drivers include DALI drivers with an external or integrated Power Supply Unit (PSU).

Localized Lighting Control: Light-level schedules, preferences, and profiles for each fixture are wirelessly communicated at system setup and stored for continuous operation.

Edge Sensing: Local processing capability supports advanced sensing and detection algorithms, providing optimization of existing features and enabling future applications.

Bluetooth Low Energy: An embedded BLE radio allows the sensor to receive and transmit beacons as well as support communication with lighting control devices and other sensors.

Occupancy and Thermal Sensing: A digital Passive Infrared (PIR) sensor combined with ambient and temperature sensing support motion identification while minimizing false detection events.

Tunable White: Compatible with DALI Type 8 dual-channel drivers to support tunable white fixtures, enabling color temperature transitions based on time of day or user control.

Daylight Harvesting: Captured ambient light information is locally processed to raise and lower light levels based on available daylight.

Room and Zone Control: Pairs with room control switches for code-compliant manual-on or auto-off capability. Sensors can be grouped into zones that share occupancy sensing data and coordinate light control based on detected motion.

IoT Sensing Node: When configured as an IoT Node, the sensor streams comprehensive live data for use with Enlighted's real-time location and analytics software applications. This option is available directly from the factory or as a remote upgrade.

Standards-Based Networking and Security: The Enlighted 802.15.4 wireless network with AES-128 encryption delivers secure, reliable communication that coexists with Wi-Fi networks by sensing low-traffic channels and transmitting in bursts.

Data Privacy: The sensor captures occupancy data in the sensor coverage area. The sensor cannot directly reference or identify any natural person.

2-Wire Surface Mount Sensor

L	3.46"	88 mm
W	3.46"	88 mm
H	1.18"	30 mm

ENLIGHTED SPECIFICATION SUBMITTAL

Job Name:	<input type="text"/>
Job Number:	<input type="text"/>
Product Codes:	<input type="checkbox"/> SU-5S-2W-H[IoT/CL/IL] <input type="checkbox"/> SU-CL-IoT-UPG <input type="checkbox"/> SU-IL-IoT-UPG <input type="checkbox"/> BTTN-SU-2-00 <input type="checkbox"/> BRKT-SU-2-00 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

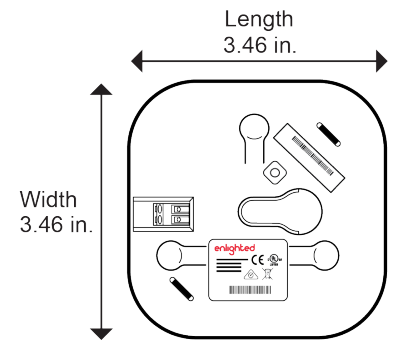
2-Wire Surface Mount Sensor

MOUNTING

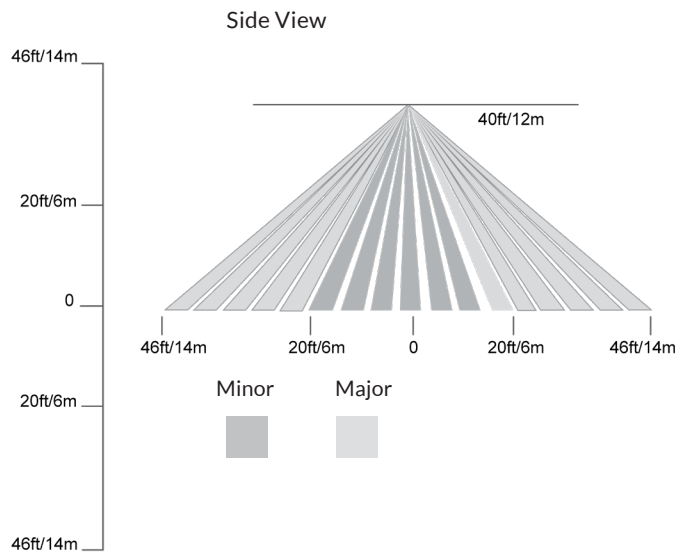
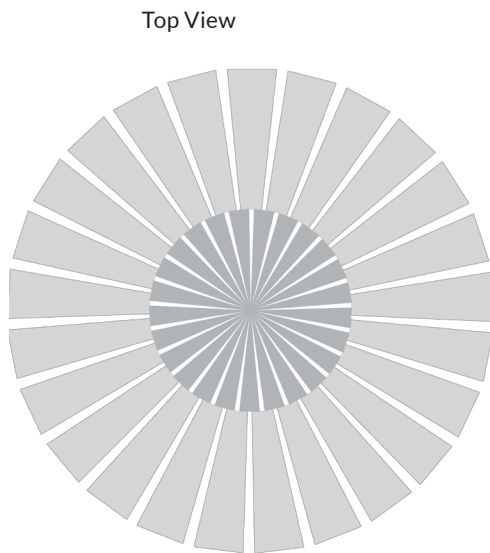
The 2-Wire Surface Mount Sensor comes with a nylon threaded screw for mounting in acoustical tile or drywall ceilings. Pendant button mount and flat metal bracket mount options are available separately.

SENSOR COVERAGE PATTERNS

The Enlighted 2-Wire Surface Mount Sensor incorporates an optical Fresnel lens that works with the digital Passive Infrared (PIR) sensor to detect occupancy and motion. The multifaceted lens focuses light onto the PIR to produce an all-encompassing field of view through aggregation of many narrow fields of view. When the 2-Wire Surface Mount Sensor is deployed as recommended, the area covered by each sensor overlaps, reinforcing coverage and accuracy across the entire floor plan.



Ceiling Height	Minor Motion (Radius)	Major Motion (Radius)
20 ft/6 m	10 ft/3 m	23 ft/7 m
40 ft/12 m	20 ft/6 m	46 ft/14 m



TECHNICAL SPECIFICATIONS

Motion Sensing: Digital Passive IR
Photosensor: Light Pipe/Photosensor Array
Enclosure: Recyclable ABS
Type: Closed Loop Light Sensor
Operating Temp: 32° to 122° F/0° to 50° C
Max. Install Height: 50 ft/15.25 m
Wireless Standards: IEEE 802.15.4
 Bluetooth 4.0 Low Energy (BLE)
 Radio Frequency: 2400-2483.5 MHz
 Wireless Range: 150 ft. (46 m) radius open range
 Encryption: AES-128

ORDERING INFORMATION

SU-5S-2W-H-xxx* 2-Wire Surface Mount Sensor (*see Product codes)
 SU-CL-IoT-UPG Connected Lighting to IoT Sensor Upgrade
 SU-IL-IoT-UPG Independent Lighting to IoT Sensor Upgrade
 BTTN-SU-2-00 Pendant Button Mount
 BRKT-SU-2-00 Bracket Mount

COMPLIANCE

Europe
 United States
 Canada

WARRANTY: 5 years
 View www.enlightedinc.com/limited-warranty-terms for complete terms and conditions

***Product Codes:** xxx
 IoT = IoT Node
 CL = Connected Lighting
 IL = Independent Lighting/Enlighted One

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