

2-Wire Micro Sensor Kit

SPECIFICATION

The Enlighted 2-Wire Micro Sensor Kit includes our fifth-generation Micro Sensor and an adaptor cable that supports direct connection to 2-wire compatible drivers. 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 Micro Sensor is a complete sensing and lighting control node powered from its attached light fixture. An innovative carrier-based mounting design supports easy installation and replacement. 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: With the included adaptor cable, the sensor is easily connected to compatible LED drivers, simplifying installation, reducing wiring errors, and providing plug-and-play capabilities. Compatible LED drivers include traditional DALI drivers with an external or integrated Power Supply Unit (PSU).

Localized Lighting Control: Light-level schedules, preferences, and behavior profiles for each fixture are wirelessly communicated during system setup and locally stored to ensure 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 separate ambient and temperature sensing support precise 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.



The Enlighted Micro Sensor

Body	L	0.88"	22.5 mm
	Dia.	0.73"	18.5 mm
Bezel	Dia.	1.06"	27.0 mm

Adaptor Cable

L	2.35"	60 mm
Dia.	0.37"	9.5 mm

ENLIGHTED SPECIFICATION SUBMITTAL

Job Name:	<input type="text"/>
Job Number:	<input type="text"/>
Product Codes:	<input type="checkbox"/> KIT-SU-5E-D-[IoT/CL/IL] <input type="checkbox"/> SU-CL-IoT-UPG <input type="checkbox"/> SU-IL-IoT-UPG <input type="checkbox"/> HCMC-SU-5E <input type="checkbox"/> TMC-SU-5E <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

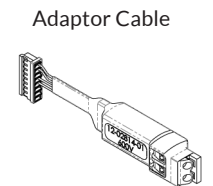
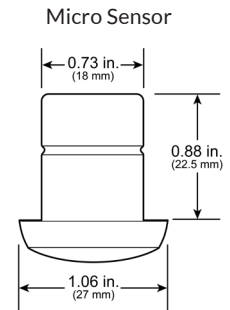
2-Wire Micro Sensor Kit

MOUNTING

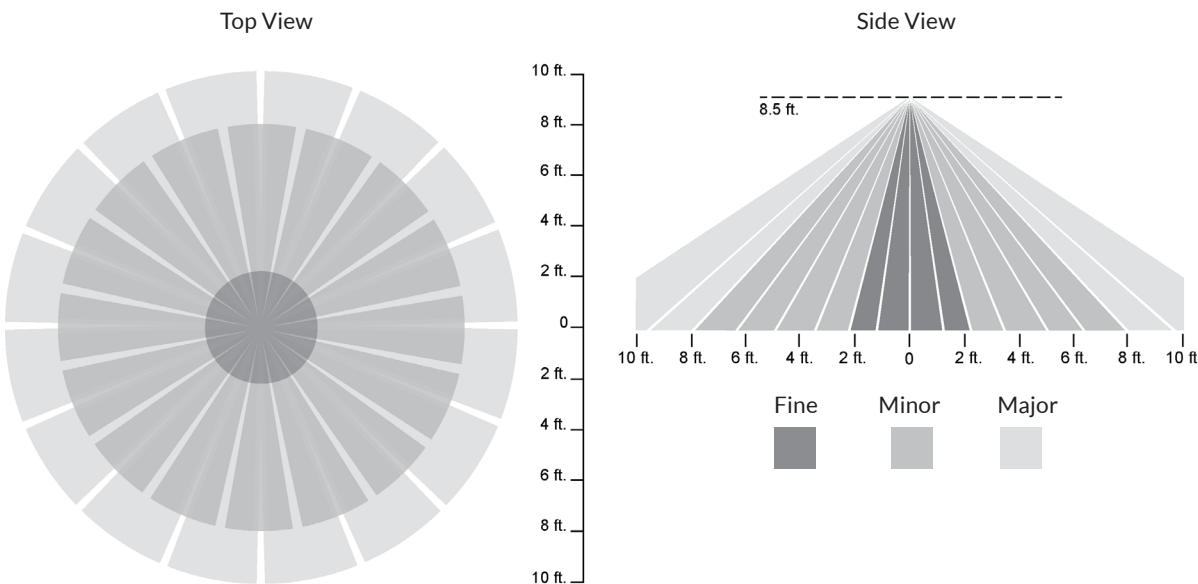
The Enlighted Micro Sensor is designed to be easily mounted into lighting fixtures or ceiling tiles such that only the discreet white faceplate is visible. The sensor slides into a carrier sleeve fitting a standard 1/2 inch trade size knockout or 7/8 inch (22 mm) hole. Carrier sleeves compatible with either lighting fixtures or ceiling tiles are available. Sensor replacement requires no tools or opening of the light fixture—simply slide the sensor out of the carrier, unplug the connector, and install the new sensor.

SENSOR COVERAGE PATTERNS

The Enlighted Micro 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 Micro Sensor is deployed as recommended, the area covered by each sensor overlaps, reinforcing coverage and accuracy across the entire floor plan.



Ceiling Height	Fine Motion (Radius)	Minor Motion (Radius)	Major Motion (Radius)
8.5 ft/2.6 m	2.3 ft/0.7 m	8 ft/2.4 m	10 ft/3.0 m
15 ft/4.6 m	4.0 ft/1.2 m	10 ft/3.0 m	18 ft/5.5 m



TECHNICAL SPECIFICATIONS

- Motion Sensing:** Digital Passive IR
- Photosensor:** Light Pipe/Photosensor Array
- Enclosure:** ABS/Polycarbonate blend
- Type:** Closed Loop Light Sensor
- Operating Temp:** 32° to 122° F / 0° to 50° C
- 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

- KIT-SU-5E-D-xxx* Micro Sensor Kit (*see Product codes)
- SU-CL-IoT-UPG Connected Lighting to IoT Sensor Upgrade
- SU-IL-IoT-UPG Independent Lighting to IoT Sensor Upgrade
- HCMC-SU-5E Hard Ceiling Mount Carrier
- TMC-SU-5E Tile Mount Carrier

COMPLIANCE

- Europe: CE, RoHS, REACH
- United States: FCC LISTED, UL LISTED
- Canada: UL LISTED

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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