

Surface Sensor USB

SPECIFICATION

The Enlighted Surface Sensor, USB, placed under each open-office workspace, detects when the desk is in use, providing users with real-time desk availability. The Surface Sensor is a new variation of our Gen 5 sensor optimized for easy deployment and tuned for placement under desks in a minimally-sized package.



OVERVIEW

The Surface Sensor, USB, is a complete sensing node powered by a low voltage power source. The sensor incorporates an optical Fresnel lens with a blinder cover that restricts the sensor's field of view to avoid false detection of motion near the desk. An innovative mount-based design or an adhesive strip included in the kit supports easy installation and maintenance.

The sensor must be connected to a low voltage power source. Enlighted's recommended solution includes the following:

- USB-A to micro USB-B or micro USB-A connector cable
- AC/DC 5V with 10W or 3W external wall mounted power adapter

FEATURES

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.

Occupancy Sensing: A digital Passive Infrared (PIR) sensor supports precise motion identification while minimizing false detection events.

IoT Sensing Node: When configured as an IoT Node, the sensor streams comprehensive live data for use with Enlighted's real-time location, analytics, and API software products.

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.

Surface Sensor, USB

L	2.0"	52.9 mm
W	0.5"	14.7 mm
Depth	0.4"	10.9 mm

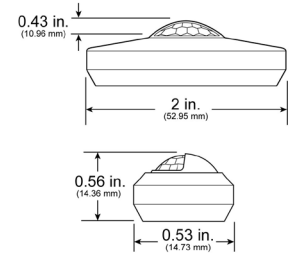
ENLIGHTED SPECIFICATION SUBMITTAL

Job Name:	<input type="text"/>
Job Number:	<input type="text"/>
Product Codes:	<input type="checkbox"/> SU-5i-USB-IoT
	<input type="checkbox"/> BRKT-SU5i-50
	<input type="checkbox"/> API-RTO-DSK-A-01
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Surface Sensor USB

MOUNTING

For a typical 27" height desk, mount the sensor to the underside of the desk 15-26" from the front edge of the desk and at least 5" from the rear edge of the desk. Install the sensor parallel to the front edge of the desk using either the adhesive tape or the mount shipped with the sensor. After installation, the sensor lens must be facing the desk occupant.

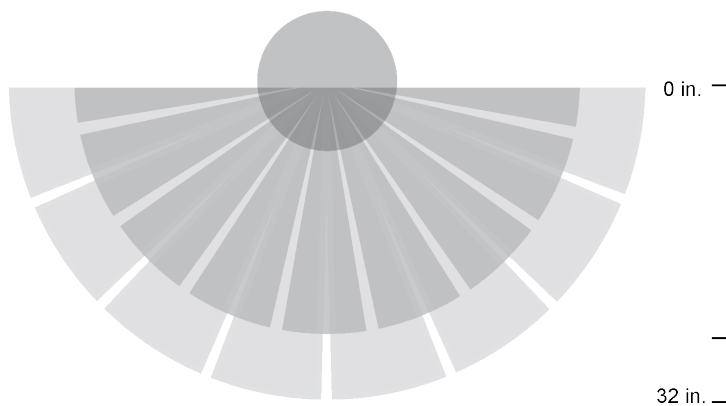


SENSOR COVERAGE PATTERNS

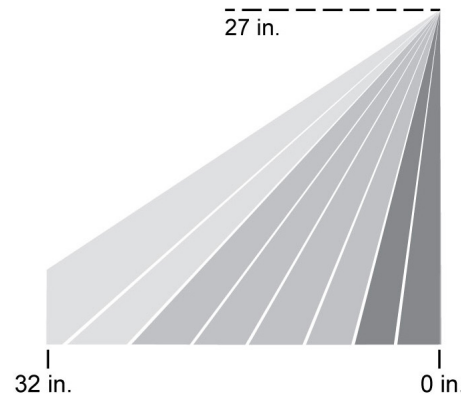
The Surface Sensor incorporates an optical Fresnel lens that works with the digital Passive Infrared (PIR) sensor to detect occupancy and motion. The multifaceted lens focuses light onto the PIR to produce an all-encompassing field of view through the aggregation of many narrow fields of view. When the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

Desk Height	Major Motion (Radius)
27"	32"

Top View



Side View



TECHNICAL SPECIFICATIONS

Mount Adhesive: One VHB Adhesive Strip

Mount Bracket: Polycarbonate Polymer,
~5 grams weight, Two #4 0.5" wood screws

Maximum Input Power:

USB Port: ~120mW

Maximum RF Output Power:

RF Output IEEE 802.15.4: 3-4dBm

BLE: 0 dBm

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-5i-USB-IoT Surface Sensor, USB

BRKT-SU5I-50* Mount Bracket

API-RTO-DSK-A-01 Desk Occupancy API

COMPLIANCE

Europe



United States



Canada



WARRANTY: 5 years

View www.enlightedinc.com/limited-warranty-terms for complete terms and conditions

*Optional 50-pack of the brackets with screws sold separately.