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CoreSync Advanced Lighting Sensor ›

The CoreSync Advanced Lighting Sensor is a low voltage sensor platform leveraging network connected Molex CoreSync infrastructure for digital building applications.

Occupancy and ambient light data can be granularly collected by Molex sensor array for advanced lighting control. Data can be transferred to BMS, 3rd-party systems or cloud platforms for augmented building control and automation, as well as advanced reporting/analytics. The full RGB ring indicator can support software-driven use-cases such as presence-based occupancy, wayfinding, and room reservation status.

FEATURES AND ADVANTAGES

CoreSync Enabled	Easy integration with Molex CoreSync system
Class 2 Device	Low voltage PoE infrastructure for power, control, and communication
Integrated Power Monitoring	Calculates valuable energy-use information
Individually addressable	Allows easy discovery, commissioning, and control of each sensor
Dual CoreSync IO Connectors	Daisy chain capable with easy connection to all CoreSync Devices
Passive Infrared Sensor	Allows for motion detection that can be tied to system controls
Ambient Light Sensing	Provides valuable ambient light data for daylight harvesting applications
Ceiling tile or Surface bracket	Comes with two mounting styles for near universal mounting locations
RGB indicator	Allows for multiple use-cases like wayfinding and room reservation

APPLICATIONS

- Lighting Control
- Daylight Harvesting
- Occupancy Detection
- Room Availability
- Wayfinding
- Auxiliary Visual Notification
- Occupancy Comfort & Productivity

SPECIFICATIONS

Electrical

Input Power: CoreSync Bus (42V-57VDC)
Standby Power: 0.6W
Max Power Consumption: 2.5W

Commercial Standards

UL916 Listed
UL2043
CSA C22.2 No. 205-17
FCC Part 15 Subpart B
RoHS & Reach Compliant

Performance/Detection

Ambient Light Range: 50-2000 lux
Digital Modes: Occupancy or Vacancy
RGB: 1-100% PWM with 16 million different colors
Detection Area: 35m² (375ft²) @ 3m (9’-10’)

Mechanical

Housing Material: ABS Plastic
Color: White/Black
Weight: 48.76 g (1.72 oz)

For installation, please refer to the installation manual.

Environmental

Ambient Temp Range: 0° to 55°C (32°F to 131°F)
Storage Temperature: -40° to 60°C (-40°F to 140°F)
Max Case Temperature: 60°C
Relative Humidity: 10-80% Non-Condensing
Environmental Rating: Indoor

Product Safety

Internal Over-Temperature Protection
DO NOT hot swap

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CONNECTION INTERFACES

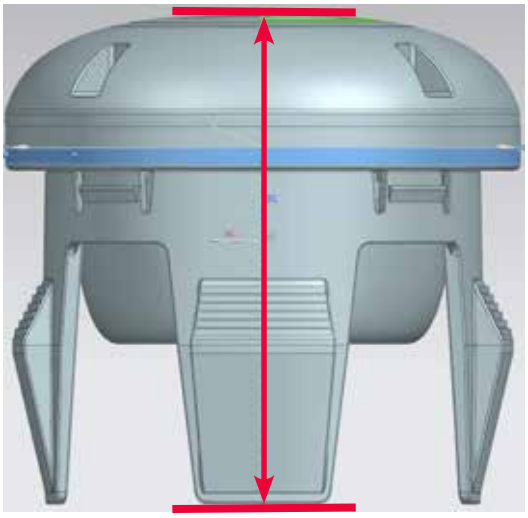
Connection	Connection Specification
CoreSync Input	4-pin Microfit 3.0 Connector for CoreSync Harness
CoreSync Output	4-pin Microfit 3.0 Connector for CoreSync Harness

CoreSync IO

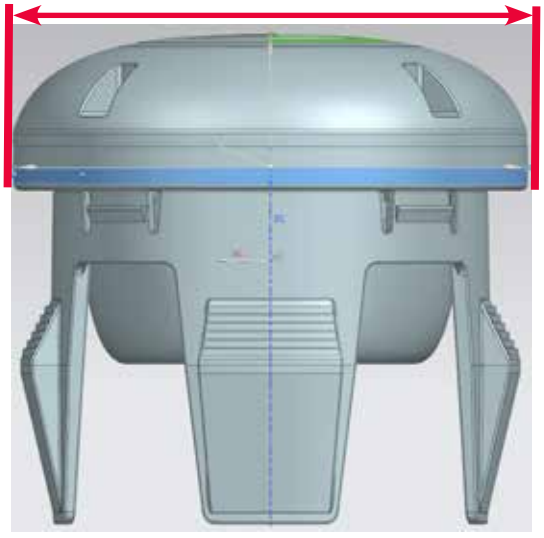
Daisy-Chaining

Dimensions

Height: 55.6mm



Max Width: 58.8mm



For further details, please see dedicated application note.

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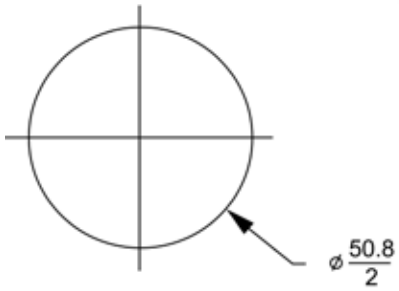
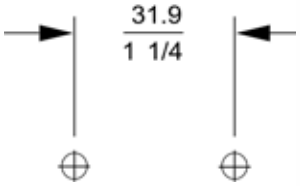
MOUNTING DIMENSIONS

Surface Mount Clearance

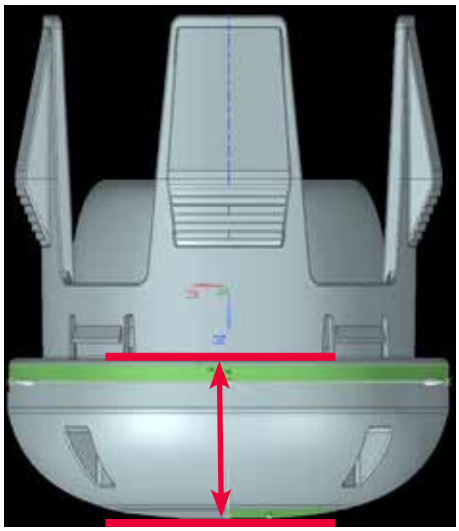


Keep away from direct light

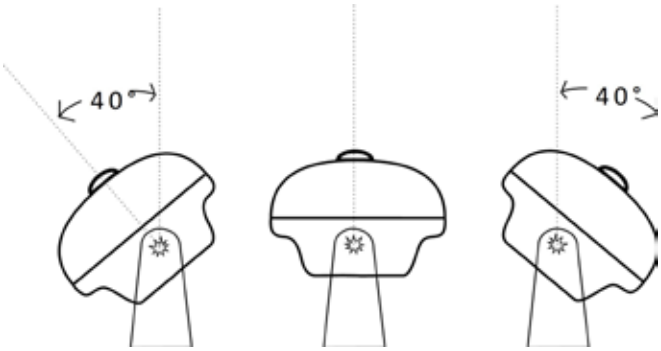
Bracket Mount Clearance



Standard PIR



Protrusion: 17.4mm



When used with the bracket mount, the sensor can be placed 40° one way, 40° the other way, or direct center.

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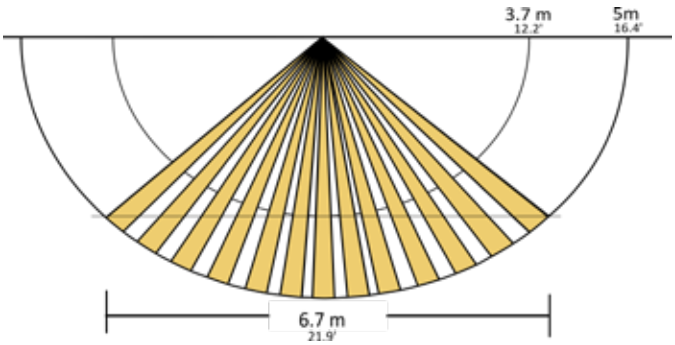
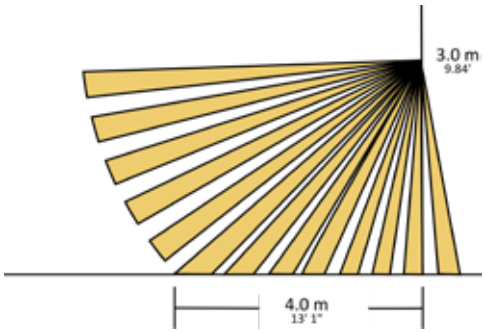
Detection Standard

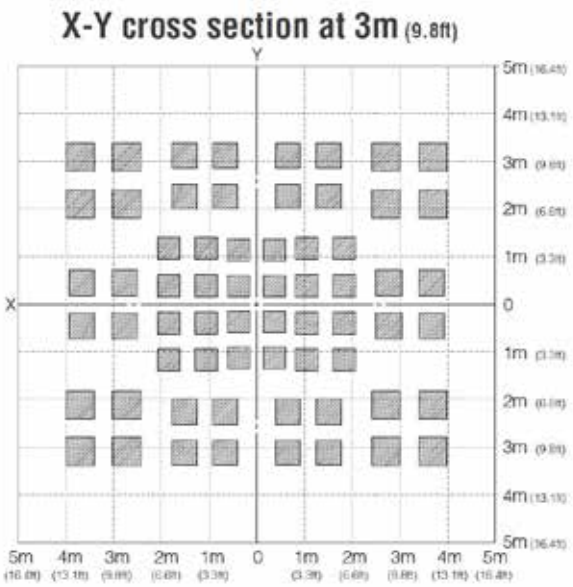
Max Mounting Height: 3.7m (12.2’) for full coverage



A sensor placed at height of H will have a coverage diameter of H*1.79



When wall mounted with bracket and angled at 40° down, the floor coverage is 4.0m when placed 3.0m high



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ORDERING INFORMATION

Order No.	Description
182089-2000	CoreSync Adv Lighting Sensor, Std White
182089-2001	CoreSync Adv Lighting Sensor, Std Black

RELATED PRODUCTS

Molex Series	Description	Gauge / conductor	Start	End	Plenum rated Cable
180777, 180778	CoreSync Daisy-Chain	18/4	4-pin Micro-Fit receptacle	4-pin Micro-Fit receptacle	No
180887, 180888	CoreSync Gateway 1.0 to Driver		10-pin Micro-Fit receptacle	4-pin Micro-Fit receptacle	No
182105-XXX	CoreSync Gateway to Driver, Reverse Gender		10-pin Micro-Fit receptacle	4-pin Micro-Fit plug	No
182106-XXX	CoreSync Extender, 2- Gender		4-pin Micro-Fit receptacle	4-pin Micro-Fit plug	No
182110-00XX	CoreSync Extender, 2-Gender Panel Mount		4-pin Micro-Fit receptacle	4-pin Micro-Fit Plug Panel Mount	No
182110-4XXX	CoreSync Long-Run Cable		4-pin Micro-Fit receptacle	4-pin Micro-Fit receptacle	Yes
182110-5XXX	CoreSync Poke-In Extender		4-pin Micro-Fit receptacle	4-way Poke in	Yes
182110-6XXX	CoreSync Extender, 2- Gender		4-pin Micro-Fit receptacle	4-pin Micro-Fit plug	Yes

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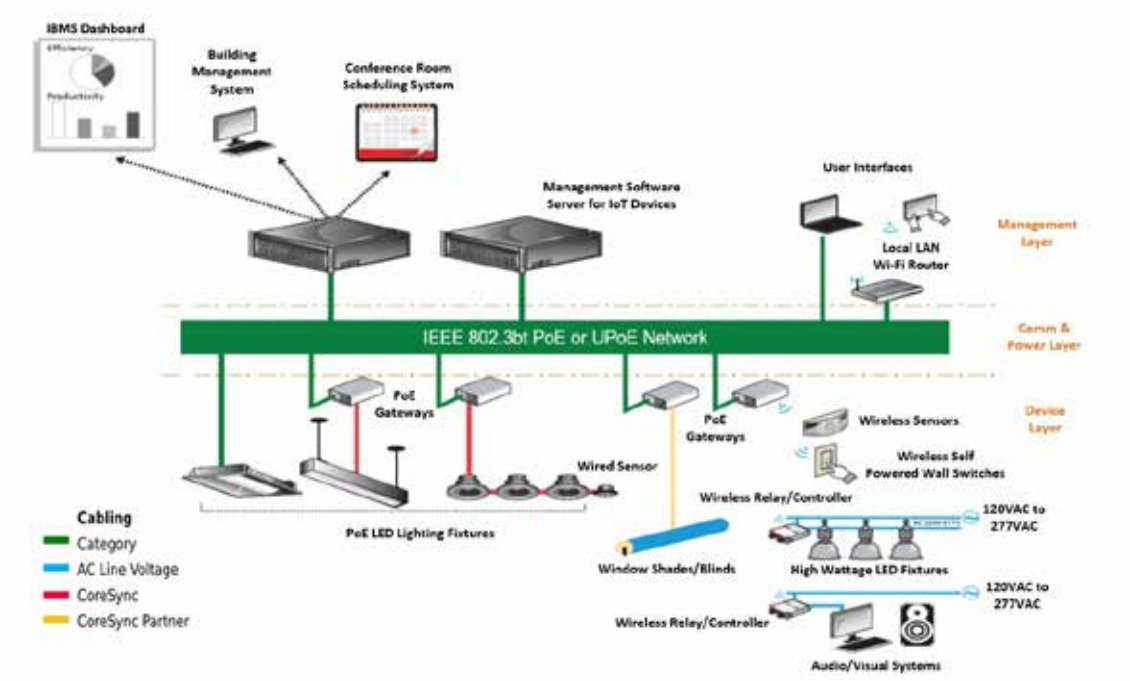
TYPICAL APPLICATION



DAISY-CHAINING

Each CoreSync Daisy-Chain device is powered and physically connected by the Molex CoreSync PoE Gateway with a rugged and reliable Molex CoreSync harness cable using a Molex Micro-Fit† 4-pin connection. If the power requirement at the input of the Gateway is below 51W for UPoE and below 71.3W for 802.3bt 90W standard, a single Molex CoreSync PoE Gateway can power and control multiple devices in a Daisy-Chain configuration, with the easy-to-use input and output connector scheme.

* Minimum Guaranteed Power for Gateway 1.0 is 51W and Gateway 2.0 is 71.3W. The total power budget on the Gateway must comply with the requirement.

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