

OVERVIEW

The **CM** family of ceiling mount occupancy sensors provide a range sensor solutions for applications with finished ceilings (e.g. ceiling tiles, sheetrock, plaster). **CM** family sensors utilize 100% digital Passive Infrared (PIR) detection and are available with several lens options, providing flexibility for multiple mounting height and coverage pattern requirements. Dual technology (**PDT**) occupancy detection can also be added as an option for applications where occupants are stationary for long periods of time.

FEATURES

- 360° coverage pattern
- Push- button programmable, adjustable time delays, and multiple operating modes
- 100 hr lamp burn-in timer
- No field calibration or sensitivity adjustments required
- Convenient test mode
- Green LED indicator

SPECIFICATIONS

Size: 4.55" diameter and 1.55" deep
 Weight: 6 oz
 Mounting: 3.5" octagon box, ceiling tile surface, single gang box
 Color: White
 Operating Voltage: 12-24 VAC/VDC
 Current Draw: Standard 4 mA ,w/ **R** option 16 mA
 Dimming Load: Sinks <20 mA; ~40 Ballasts @ .5 mA each
 Rcmd. Power Pack: **PP20**
 ROHS compliant



Sensor Switch™

CM
 CM PDT



Warranty

Five-year limited warranty. Complete warranty terms located at:
www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end-user environment and application.

Specifications subject to change without notice.



ORDERING INFORMATION

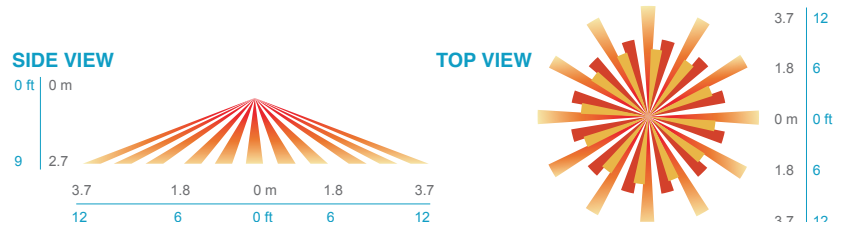
CM Family				Example: CM PDT 11 R LT	
Series	Detection Technology	Coverage Type	Relay	Additional Features (choose 1)	Temp / Humidity
CM Ceiling Mount Sensor	[blank] PIR PDT* Dual Technology (PIR/ Microphonics)	6 High Bay 360° 9 Small Motion 360° 10 Large Motion 360° 11 Hallway	[blank] None R Low Voltage Relay	[blank] None D Occupancy Controlled Dimming P Photocell ADC** Photocell w/ Dimming	[blank] Standard LT Low Temp/ High humidity

* **PDT** option not available on **CM 6** models
 ** **ADC** option not available on **CM6** models

COVERAGE PATTERNS

SMALL MOTION 360° (Model # CM 9/ CM PDT9¹)

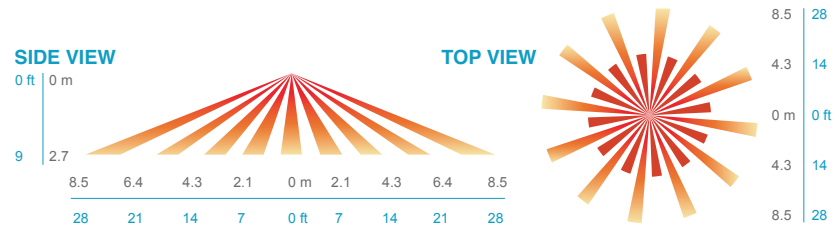
- Best choice for small motion (e.g. hand movements) detection
- 360° conical shaped pattern
- Provides 12 ft (3.66 m) radial coverage (~500 ft²) when mounted to standard 9 ft (2.74 m) ceiling
- 8 to 15 ft (2.44 to 4.57 m) mounting heights provide 10 to 20 ft (3.05 to 6.10 m) radial coverage
- Lens assembly is marked with a gray ring around lens to differentiate versus the #10 lens



¹ Sensors with Microphonics™ provides overlapping detection of human activity over the complete PIR coverage area. Advanced filtering is also utilized to prevent non-occupant noises from keeping the lights on.

LARGE MOTION 360° (Model # CM 10/ CM PDT10¹)

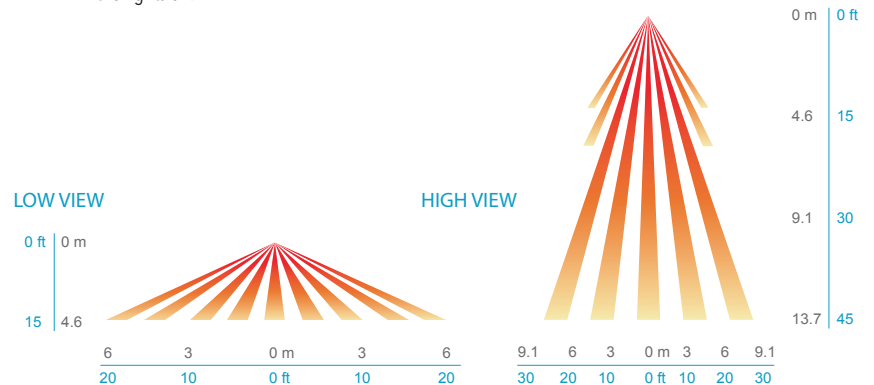
- Best choice for large motion detection (e.g. walking)
- 360° conical shaped pattern
- Provides ~24 ft (7.32 m) radial coverage (~2000 ft²) when mounted at 9 ft (2.74 m)
- 7 to 15 ft (2.13 to 4.57 m) mounting heights provide 16 to 36 ft (4.88 to 10.97 m) radial coverage
- Detection range improves when walking across beams compared to into beams



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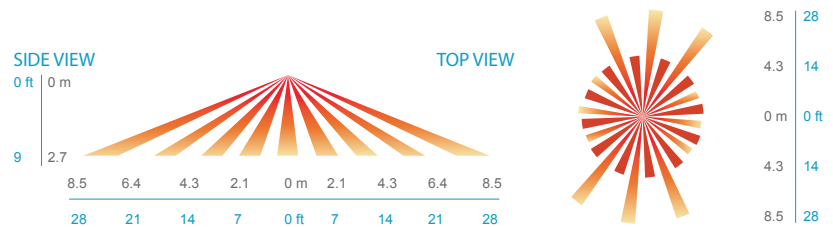
HIGH MOUNT 360° (Model # CM 6)

- Best choice for 15 to 45 ft (4.57 to 13.72 m) mounting heights
- 15 to 20 ft (4.57 to 6.10 m) radial coverage overlaps area lit by a typical high bay fixture
- Excellent detection of large motion (e.g. walking) up to 35 ft (10.76 m)
- Excellent detection of extra large motion (e.g. forklifts) up to a 45 ft (13.72 m)



HIGH MOUNT HALLWAY (Model # CM 11/CM PDT11¹)

- Best choice for large motion detection
- Provides 28 ft (8.53 m) of coverage when mounted to standard 9 ft (2.74 m) ceiling
- 7 to 15 ft (2.13 to 4.57 m) mounting heights provide 16 to 36 ft (4.88 to 10.97 m) hallway coverage



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WIRING (DO NOT WIRE HOT)

STANDARD WIRING

RED - Power Input (12-24 VAC/VDC)

BLACK - Common

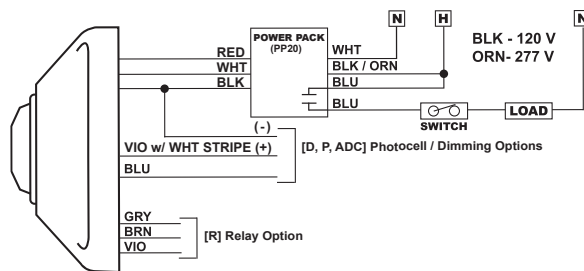
WHITE - Occupancy State (high VDC for occupied)

PHOTOCELL/DIMMING OPTIONS (D, P, ADC)

BLUE - Direct output to power pack for providing photocell control and/or secondary dim time out. Output is high VDC with occupancy & low light. Output also held high during secondary dim time out. For multi-level control, use two power packs and connect White wire to primary load and Blue to daylight load.

VIOLET w/ WHITE STRIPE - Connect to 0-10 VDC control wire (typically Violet) from 0-10 VDC dimmable ballast

GRAY from Ballast - Connect to sensor Black wire



RELAY OPTION (R)

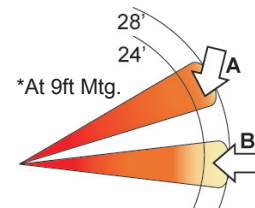
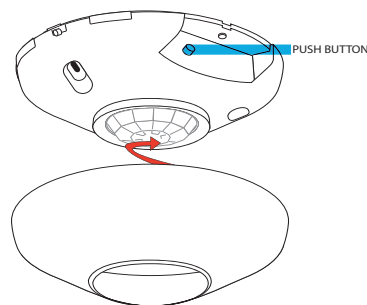
GRAY / BROWN - Connected during occupied state

VIOLET / BROWN - Connected during unoccupied state

Note: Relay is energized during unoccupied state

INSTALLATION

- Mount sensor directly to a ceiling tile or a metallic grid (two self-tapping screws provided).
- Sensor's mounting holes also align with 3.5" octagon or single gang handy box (screws not provided).
- Sensor will detect motions crossing segments more effectively than motions parallel to beams.
- For optimal detection, position sensor such that segments are crossed upon entrance and unable to view outside the space.
- **PDT** models: For maximum Microphonics sensitivity avoid locating sensor near HVAC air diffusers



A: When walking across beam, detection will occur at approximately 28 feet. (8.53 m)

B: When walking into beam, detection will occur at approximately 24 feet. (7.32 m)