AcuityControls

Sensor Switch™

CM
CM PDT

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

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.

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ORDERING INFORMATION

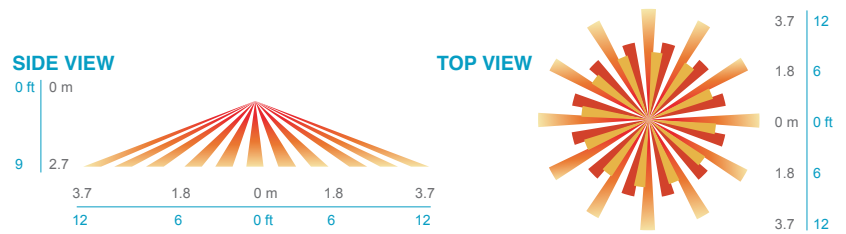| CM Family						Example: CM PDT 11 R LT
CM						
Series	**Detection Technology**	**Coverage Type**	**Relay**	**Dimming**	**Visible Light Programming**	**Temp / Humidity**
CM — Ceiling Mount Sensor	[blank] — PIR PDT[1] — Dual Technology (PIR/Microphonics)	6 — High Bay 360° 9 — Small Motion 360° 10 — Large Motion 360° 11 — Hallway	[blank] — None R — Low Voltage Relay	[blank] — None D — Occupancy Controlled Dimming P — Photocell ADC[2] — Photocell w/ Dimming	[blank] — None VLP — Visible Light Programming[3]	[blank] — Standard LT — Low Temp/ High humidity

Notes
1. PDT option not available on CM 6 models
2. ADC option not available on CM 6 models
3. Must specify P or ADC if VLP is ordered and must be within 5ft of sensor to program
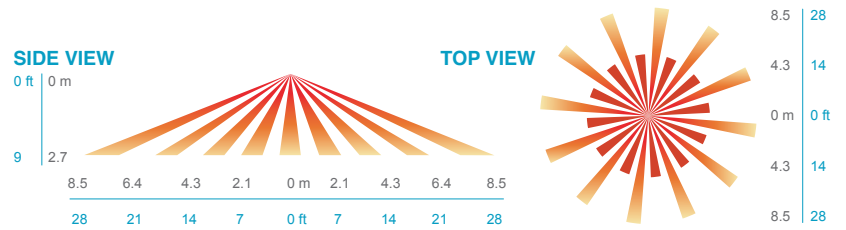
COVERAGE PATTERNS

Small Motion 360º (Model # CM 9/ CM PDT 9[1])

- Best choice for small motion (e.g. hand movements) detection
- 360º 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
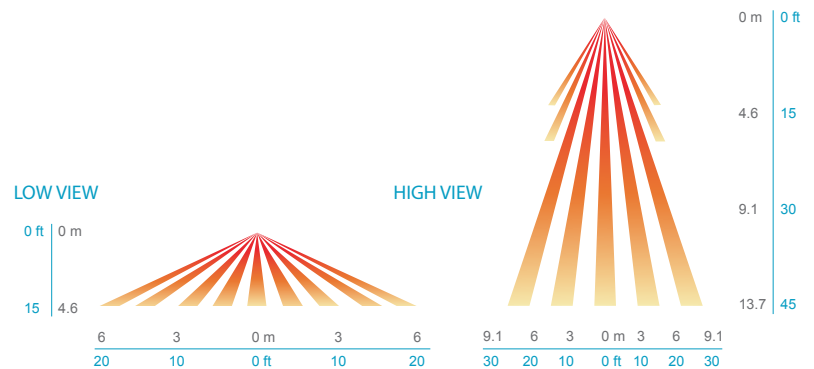
SIDE VIEW

TOP VIEW

Large Motion 360º (Model # CM 10/ CM PDT 10[1])

- Best choice for large motion detection (e.g. walking)
- 360º 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
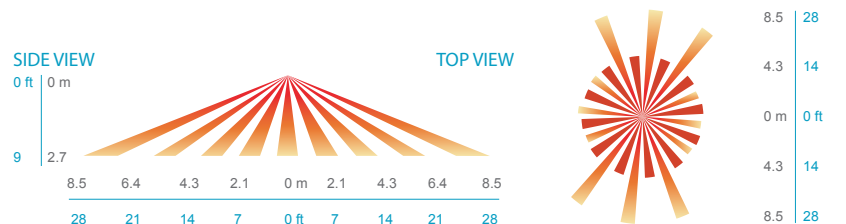- Detection range improves when walking across beams compared to into beams

SIDE VIEW

TOP VIEW

High Mount 360º (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)

LOW VIEW

HIGH VIEW

High Mount Hallway (Model # CM 11/ CM PDT 11[1])

- 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 4.57m) mounting heights provide 16 to 36 ft (4.88 to 10.97m) hallway coverage

SIDE VIEW

TOP VIEW

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.

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
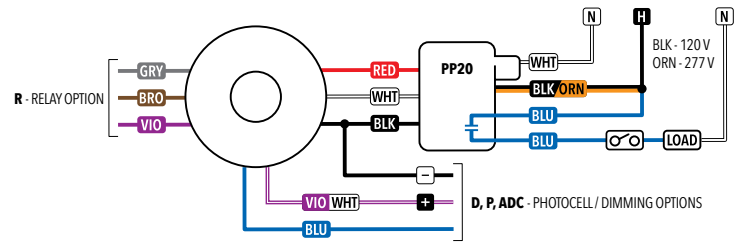
GRAY from Ballast - Connect to sensor Black wire

RELAY OPTION (R)
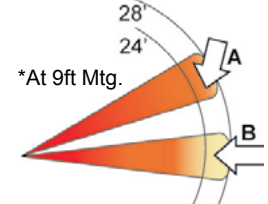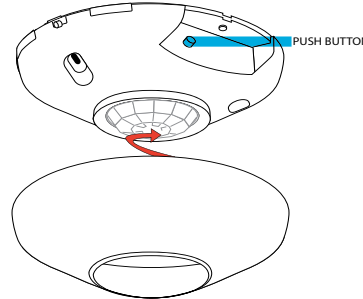
GRAY / BROWN - Connected during occupied state

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

*At 9ft Mtg.

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)