OVERVIEW

The **nCM xx RJB** family of nLight ceiling/surface mount occupancy sensors provide a range of networked sensor solutions for applications with finished ceilings (e.g. ceiling tiles, sheetrock, plaster). **nCM xx RJB** 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 occupancy detection can also be added as an option for applications where occupants are stationary for long periods of time. All sensors have integrated on/off photocells as a standard feature, with automatic daylight harvesting/dimming control as an available option. Additionally, **nCM xx RJB** family sensors are also available with an optional auxiliary low voltage relay for simple integration with a BMS system or other building system.

nCM xx RJB family sensors are powered via the nLight network bus and typically communicate with one or more nLight enabled luminaires (e.g. Lithonia VTLED Series) or nLight relay/dimming packs to enable control of fixtures individually or in groups. These configurations work standalone and do not require a connection to a larger nLight network.

FEATURES

- 100% digital PIR detection
- Integrated photocell standard (disabled by default) Photocell views down through sensor lens and when enabled provides two selectable modes of operation
- On/Off mode: Photocell has full on/off control during periods of occupancy
- Inhibit mode: Photocell can prevent lights from turning on if adequate daylight is available, but cannot turn lights off
- Optional dimming photocell (ADCX option)
- Optional auxiliary low voltage relay (AR option) for dry contact output relay only tracks occupancy by default, ignoring switch and photocell commands
- LED status indicator
- Adjustable settings (e.g. occupancy time delays, photocell set-points) via push-button or SensorView software application
- Broadcasts occupancy and photocell information over a local nLight channel
- Remotely upgradeable firmware

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

nCM xx RJB Example: nCM PDT 9 ADCX R					
Series / Detection	Coverage Type		Options (See Below)	RJ45 Port Location	
nCM PIR Detection nCM PDT Dual Tech (PIR/ Microphonics)	9 10 6	Small Motion 360° Large Motion 360° High Mount 360° (not available with PDT version)		RJB Rear RJ45 (CAT5e patch cable & RJ45 splitter included)	

nCM xx RJB Options								
Photocell		Auxiliary Relay	Dual Time Delay ²	Temp/ Humidity				
[blank] ADCX	On/Off Photocell (disabled by default) Automatic Dimming Control (of remote dimming output)	[blank] None AR Low Voltage Aux. Relay	[blank] Single Time Delay 2P Dual Time Delay	[blank] Standard LT Low Temp / High Humidity				

NOTES:

1. For information on models with side RJ45 ports, see website 2. Not available with **AR** or **ADCX** options

AcuityControls

nLight.

nCM xx RJB nCM PDT xx RJB



nCM 9 RJB

nCM PDT 9 RJB

nCM 10 RJB nCM PDT 10 RJB





SPECIFICATIONS

- Size: 4.55" Dia. (11.56 cm) 1.55" Deep (3.94 cm) Weight: 6 oz Mounting: Ceiling Tile / Sheetrock Surface, 3.5" Octagon Box, Single Gang Handy box Color: Matte White Wires / Cables: (1) CAT5e patch cable, 1ft (factory installed) (2) 20 AWG wires (**AR** option only)
- nLight Bus Power Consumption: ~3mA nLight Network Connection: 2 RJ-45 Ports (via an included RJ-45 splitter)

Relay Rating (**AR** option only): 1A @ 24 VAC/VDC (resistive only) ROHS Compliant, Title 24 Component

TOP VIEV

COVERAGE PATTERNS

SMALL MOTION 360° (Model # nCM 9/nCM PDT 9¹)



 Best choice for small motion (e.g. hand movements) detection
 Oft or m

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- 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



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.



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LARGE MOTION 360° (Model # nCM 10/nCM PDT 10¹)

- 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

HIGH MOUNT 360° (Model # nCM 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)

3.7 12

1.8 6

1.8 6

3.7 12

0 m 0 ft

Wiring to an nLight Relay Pack



TYPICAL APPLICATIONS

The following instructions are for mounting sensor directly to a ceiling tile or sheetrock surface. Sensor's mounting holes also align with standard round fixture or single gang handy box (screws not provided).

- 1. Using template included with unit, mark spots on ceiling tile/sheetrock for cable hole and mounting anchors/screws
- 2. Drill 1/2" hole through ceiling surface at location indicated on template
- 3. Insert provided anchors into ceiling surface at locations indicated on template
- Remove provided RJ-45 splitter from sensor's attached CAT5e cable and then thread cable (and low voltage wires if -AR option included) through hole from underside
- Mount sensor to anchors using two screws provided
 Attach provided RJ45 splitter device (model CATS Y) above ceiling to cable from sensor (see diagram on right)
- 7. Interconnect CAT-5e cables to/from rest of nLight zone to RJ45 splitter
- Once power is received via CAT-5e connection, all devices in zone will automatically begin functioning together according to each device's defaults
- 9. Install decorative sensor lid by rotating clockwise
- 10. Refer to included instruction card for default settings and directions on push-button programming.

