



BASIC OPERATION

Occupancy sensors have two tasks: 1) Keeping the lights ON while the room is occupied, and 2) Saving energy by keeping the lights OFF while the room is unoccupied.

Passive Infrared (PIR) is an excellent and precise technology for initially turning the lights ON, but lacks sensitivity for minor motion at distances. Ultrasonic (U/S) technology provides maximum sensitivity with continuous reflective high frequency waves. This is optimal for keeping the lights ON.

Encelium's multi-technology sensor combines the benefits of both PIR and U/S technologies for unrivaled performance and reliability.

APPLICATIONS

- Cafeterias
- Computer rooms
- Day care centers
- Workspaces
- Offices with cubicles
- Restrooms
- Storage rooms
- Classrooms
- Conference rooms
- Filing rooms
- Open warehouses
- Open areas
- Stairwells
- Executive, open, and private offices

HOW THE SCM SENSOR AUTOMATICALLY ADAPTS

Condition	Example	Self-Adaptive Reaction
Timer Left In Test Mode - The sensor remains in an 6 sec. test mode.	An installer accidentally leaves the sensor in the 6 sec. timer test mode and the lights may go off or on every 6 sec.	The sensor automatically resets the timer to 10 min. after 15 min. of test mode.
False-On - The sensor incorrectly turns the lights on.	The sensor detects movement in the corridor or hallway and the room lights turn on.	After an initial movement is sensed, if another movement is not sensed within the timer setting then the delayed off time setting is automatically reduced.
False-Off - The sensor incorrectly turns the lights off.	The sensor does not detect movement because an occupant sits virtually motionless at a desk and the lights turn off.	If motion is sensed within a short period after the lights go off, then the current delayed off-time setting is increased.

SCM-500, SCM-1000, SCM-2000

FEATURES

- **Fast, Simple Installation:** Easy ceiling mount, three wire connection (low voltage) and twist-lock sensor attachment for 360° rotation and flexibility.
- **Small Motion Sensitivity:** The ultrasonic technology provides excellent small motion sensitivity. Crystal controlled to ± .005%.
- **Timer Setting Feature:** Automatic - 30sec - 30min. Test mode - 6sec with auto exit programming.
- **Non-Volatile Memory:** Learned and adjusted settings saved in protected memory are not lost during power outages.
- **Wide Coverage:** Units from 500 to 2000 sq. ft. available.
- **Power base (PBA-015) available** for line voltage applications
- **Ambient Light Mode:** Integrated photocell prevents lights turning on under adequate ambient light.
- **Auto-Adapting Mode:** Internal microprocessor continually analyzes and adjusts the sensitivity and time delay.
- **Walk-Through Mode:** Provides increased energy savings by decreasing the time delay to 2.5min when someone momentarily walks through the monitored space.

FOR GREATER SAVINGS

Combine with Encelium's Energy Control System to gain considerable benefits over occupancy sensors alone:

- **Polaris™ Software** enables the addition of Daylight-Harvesting, Time Scheduling, Task Tuning, Variable Load Shedding, Personal Control, for significantly greater energy savings.
- **Software Remapping:** any sensor to any zone.
- **Software Adjustable:** Time-out, delay, light levels.
- **Connects directly** to Encelium I/O Module.
- **BACnet Interface** (optional): Occupancy sensing for building automation, HVAC, security, traffic data, etc.

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DIP SWITCH SETTINGS					
SWITCH		FUNCTIONS		SWITCH SETTINGS	
	BANK A	OFF	ON		
A1	Mode	Multi-Tech	Single Tech		
A2	PIR/US	PIR	Ultrasonic		
A3	Manual Mode	Auto Adapting Enabled	Auto Adapting Disabled		
A4	Walk-Thru Disable	Walk-Thru Enabled	Walk-Thru Disabled		
BANK B					
B1	Override to On	Auto Mode	Lights forced On		
B2	Override to Off	Auto Mode	Lights forced Off		
B3	Test Mode	OFF▶ON▶OFF to start Test Mode. Auto-exits after 15 min.			
B4	LED Disable	LEDs Enabled	LEDs Disabled		

*Bold items are factory defaults

SPECIFICATIONS

ELECTRICAL	
Power Requirements	24 VDC, works with Encelium IOM, PPK Power Pack or PBA Power Base Adaptor
Power Consumption	SCM-0500: 25mA, SCM-1000: 35mA, SCM-2000: 30mA
Output	24 VDC active high logic control signal with short circuit protection
CONTROLS	
Ultrasonic Sensitivity	0-100%; green knob (factory setting: 50%)
Infrared Sensitivity	0-100%; red knob; (factory setting: 75%)
Light Sensor	20 to 3,000 Lux; blue knob; factory set at 100% (*grey wire required)
Time Delay	30sec-30min; black knob (factory setting: 5 min)
INDICATORS	
Green LED	U/S motion technology
Red LED	Infrared motion technology
ENVIRONMENTAL	
Operating Temperature Range	32°F to 104°F (0°C to 40°C)
Relative Humidity	0% to 95% non-condensing, for indoor use only
OTHER	
Mouting Height	8-12 feet
Listings	CUL/US Certified, meets ASHRAE Standard 90.1 and CEC Title 24 requirements
Warranty	Limited Five-Year Warranty

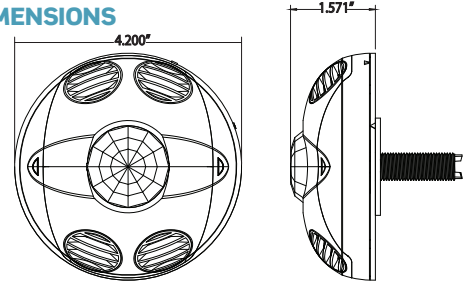
ORDERING INFORMATION

CAT NO.	DESCRIPTION
SCM-0500	Multi-Technology Ceiling Sensor, 500 sq. feet of coverage
SCM-1000	Multi-Technology Ceiling Sensor, 1000 sq. feet of coverage
SCM-2000	Multi-Technology Ceiling Sensor, 2000 sq feet of coverage

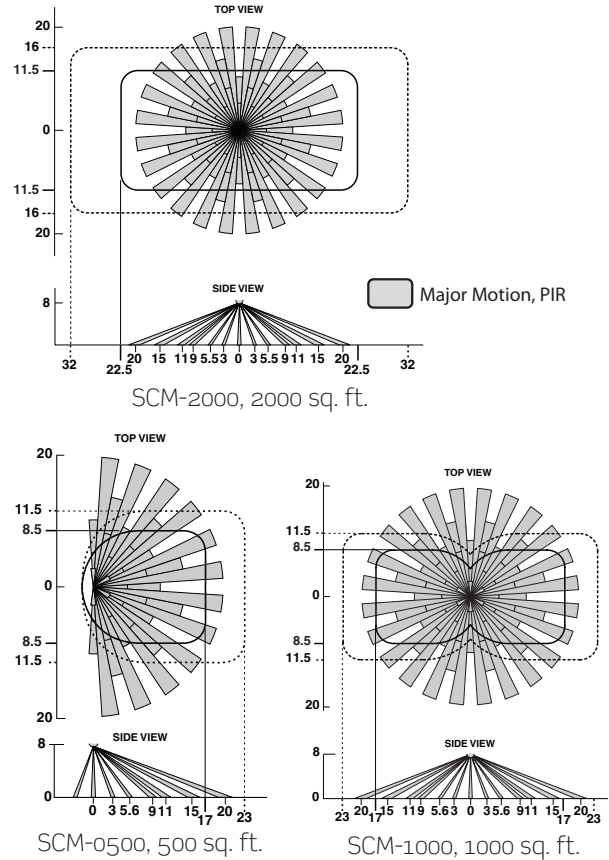
Encelium's PBA-015 Power Base Adaptor can be used in place of a Power Pack for single-sensor, 15 Amp load applications. See Encelium's PBA-015 datasheet for more information.

When used with Encelium's Lighting Control System, a Power Pack is not required for sensor installation. Please refer to document 'Encelium I/O Module to Sensor Installation Instructions' for full information.

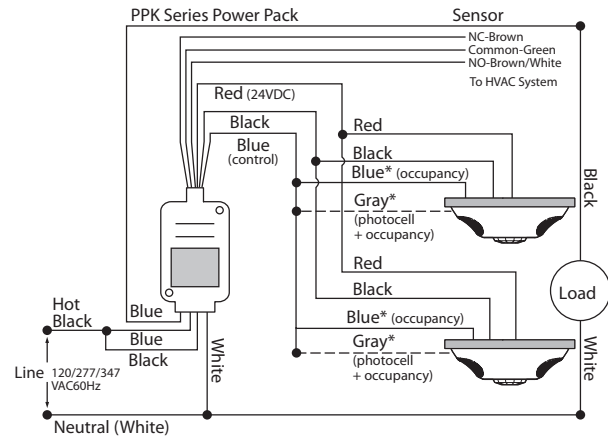
DIMENSIONS



FIELD-OF-VIEW



STAND-ALONE WIRING APPLICATION



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