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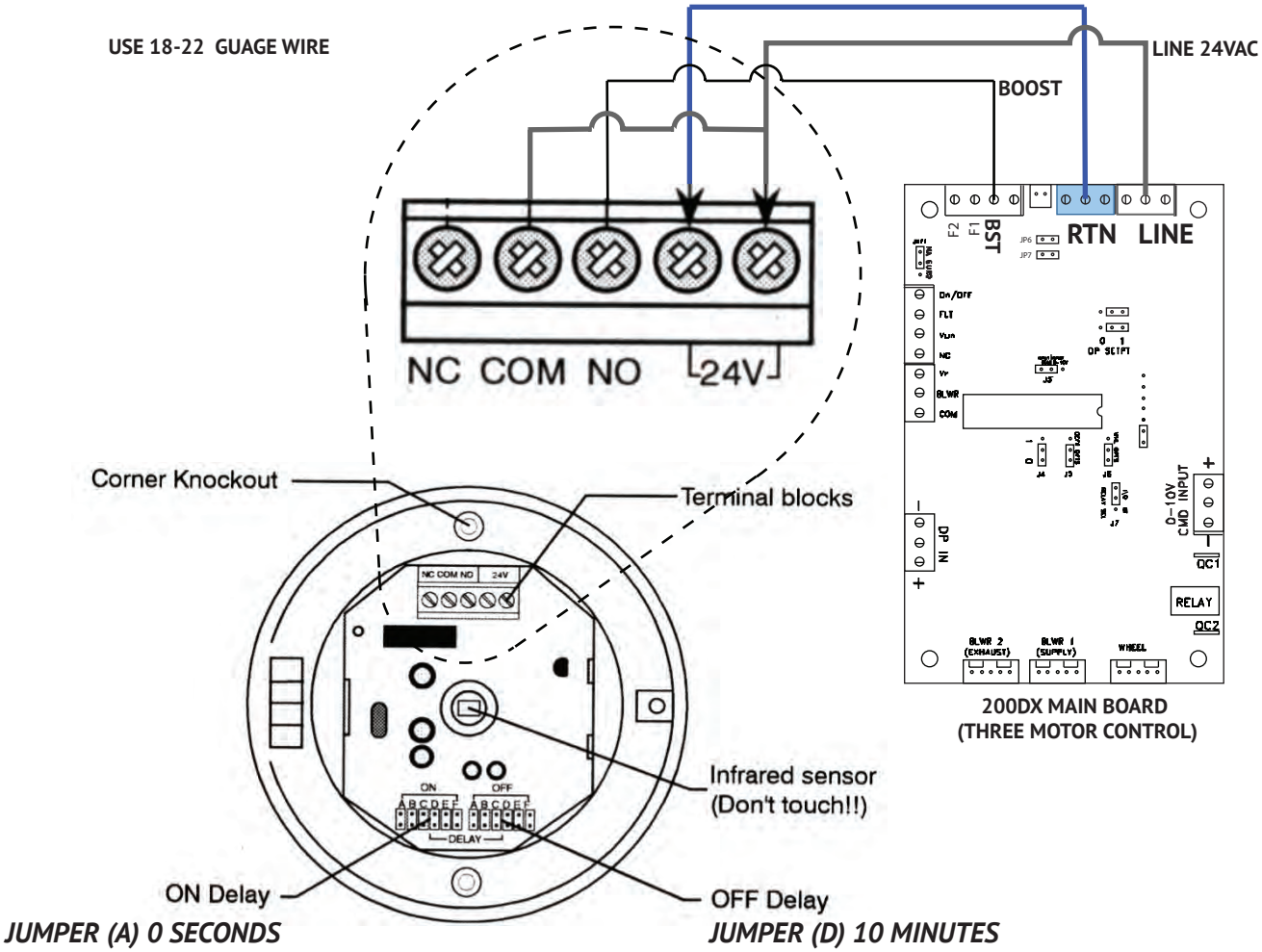
Motion Sensor Setup

Bathroom Boost recommened settings & wiring

UltimateAir 200DX Energy Recovery Ventilation



JUMPER (A) 0 SECONDS

JUMPER (D) 10 MINUTES

For more information, please see the PECO SA200-001 Occupancy Sensor instructions on the following page.

REVISED FEBRUARY 17, 2016 BY MB

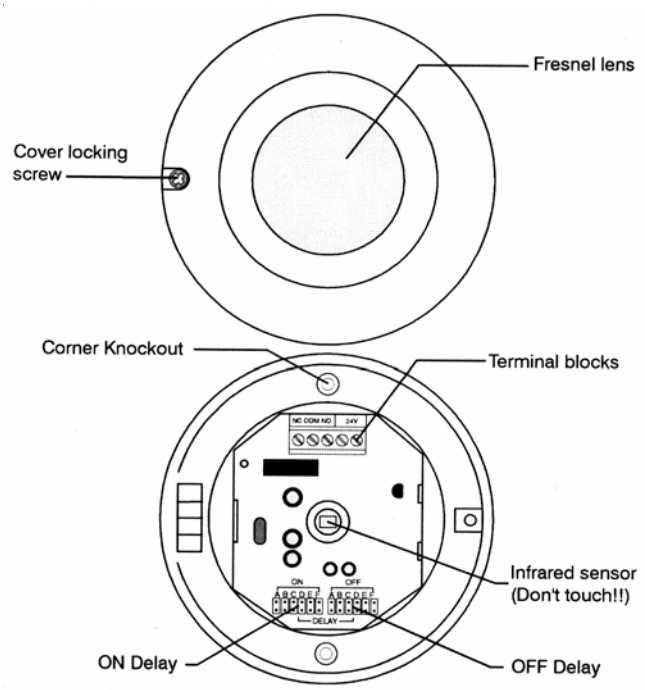
SA200-001
HVAC Occupancy Sensor

Installation Instructions

GENERAL

The SA200-001 is a ceiling mount 360° occupancy sensor designed for automatic HVAC system control. This sensor provides a changeover (form C) output for fan coil controller to activate/deactivate the operation of fan coil automatically.

DESCRIPTION

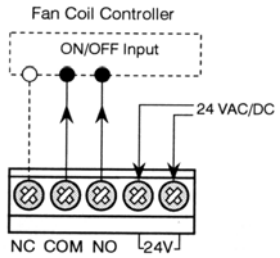


INSTALLATION & WALK TEST

Installation

1. Open the cover by loosening the screw. Bend the clip and remove the PCB module.
2. Route the cable into the unit base and mount the base on the ceiling.
3. Replace the PCB module. Connect the cable to the corresponding terminals according to the following instructions.

Wiring Diagram



- **NC-COM-NO**: Output for ON-OFF control of fan coil operation.
- **24 V**: Power supply (non-polarity)

4. Replace the front cover and perform the walk test.

Walk Test

Apply power, allowing 25 seconds for sensor to warm up. The LED will blink (long and short) during warm up period. Ensure the jumper head connectors of ON & OFF delays are placed at “A” position (shortest delay). After the warm up expires, walk across the (invisible) detection zones at normal pace. The LED will light whenever sensor detects the motion. *Note: The LED will blink if any jumper connector is not properly placed.*

OPERATION

Operation Diagram

A. Standby

After warm up period expires, the sensor enters into standby mode. Sensor will check if delay jumpers are properly placed. If not, the LED will flash.

B. Relay ON Delay

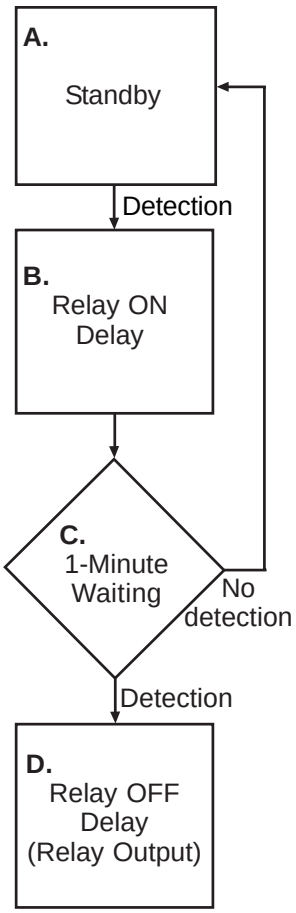
Relay ON delay is the time given to sensor to verify true occupancy before activating the relay output. Any further detection during ON delay will NOT reset the timer.

C. 1-minute Waiting

When Relay ON delay expires, the sensor enters into a 1-minute waiting time. If no detection within 1 minute, then sensor will return to standby mode. If any detection occurs, then relay output will be activated and Relay OFF delay will be started.

A. Relay OFF Delay

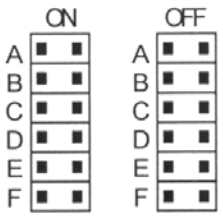
Relay OFF delay is the time of relay activating. Every detection during this period will reset the timer.



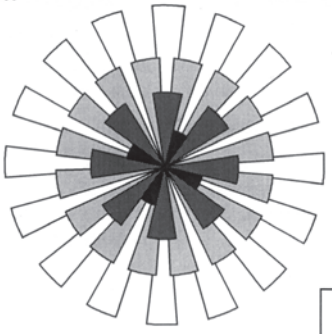
ON / OFF DELAY

The ON and OFF delays are designed to provide intelligent energy management of HVAC system. ON delay is the time given to the sensor to certify the occupancy, before it activates the fan controller. OFF delay is the time that relay is active. Both ON and OFF delays can be easily set by placing the jumper on the corresponding pins as follows:

	A	B	C	D	E	F
ON	0 sec.	10 sec.	30 sec.	1 min.	5 min.	10 min.
OFF	10 sec.	1 min.	5 min.	10 min.	20 min	30 min.

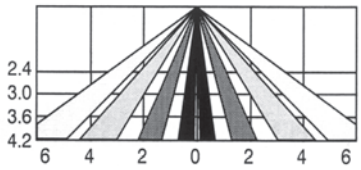


DETECTION PATTERN



Top View 360°

Side View



Mount height	2.4m	3.0m	3.6m	4.2m
Coverage(Dia.)	6.0m	7.5m	9.0m	10.5m

SPECIFICATIONS

Infrared sensor ..... Dual element
Power supply ..... 24 ± 2 V AC/DC
Detection range ..... Height x 2.5 at 25°C
Output format ..... Form C, 30 VDC, 0.2A max.
Current drain ..... 5 mA @24 VAC
Mounting height ..... 2.4~4.2 m
Detectable speed ..... 0.1~3.0 m/sec.
RFI immunity ..... Av. 20 V/m (10~1,000 MHz)
Temperature ..... -20°C~38°C (-4°F ~ 100°F)
Humidity ..... 95% RH max.
Dimensions ..... 110 (Dia.) x 44 (H) mm

WARNING

- READ THESE INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING TO INSTALL, OPERATE OR SERVICE THIS DEVICE.
- Failure to observe safety information and comply with instructions could result in PERSONAL INJURY, DEATH AND/ OR PROPERTY DAMAGE.
- To avoid electrical shock or damage to equipment, disconnect power before installing or servicing.
- To avoid potential fire and/ or explosion do not use in potentially flammable or explosive atmospheres.
- Retain these instructions for future reference. This product, when installed, will be part of an engineered system whose specifications and performance characteristics are not designed or controlled by PECO, Inc. You must review your application and national and local codes to assure that your installation will be functional and safe.

CAUTION Use Copper wire only, insulate or wire nut all un-used leads.