AHAC-DT – MicroSet dual tech low/line voltage ceiling sensors

Project Name:	Prepared By:
Project Number:	Date:
Catalog Number:	Type:

AHAC-DT

AHSP20-MV

Ceiling sensors description

The dual technology sensor's combination of ultrasonic and passive infrared technologies offers the most complete sensing equipment available today. MicroSet self-adjusting dual technology sensors drastically simplify and reduce a contractor's installation and adjustment time period.

Design features

- MicroSet self-adjusting time delay and sensitivity
- Products tested to NEMA WD 7 - 2011 Occupancy Motion Sensors Standard
- Built-in light level sensor (Low voltage only)
- BAS/HVAC isolated relay (Low voltage only)
- Selectable walk-through mode (Low voltage only)
- Dual relay control (Low voltage only)
- Units available for control of single or two separate loads (Line voltage only)

Table 1. MicroSet dual tech - line voltage ceiling sensor

Catalog no.	Coverage	Field of view	Frequency	Features
☐ AHAC-DT-2000-MV	2000 sq. ft.	Two way (360˚)	32 kHz	With daylight sensor
☐ AHAC-DT-2000-DMV	2000 sq. ft.	Two way (360˚)	32 kHz	Dual relay with daylight sensor
☐ AHAC-STEM	—	—	—	—

Table 2. MicroSet dual tech - low voltage ceiling sensor

Catalog no.	Coverage	Field of view	Frequency	Features
☐ AHAC-DT-2000	2000 sq. ft.	Two way (360˚)	32 kHz	—
☐ AHAC-DT-1000	1000 sq. ft.	Two way (360˚)	32 kHz	—
☐ AHAC-DT-0501	500 sq. ft	One way (180˚)	40 kHz	—
☐ AHAC-STEM	—	—	—	—

Table 3. Heavy duty switchpack

Catalog no.	Description	Features
☐ AHSP20-MV*	Heavy duty switchpack	Capable of switching up to 20A

***For more information about switchpack visit our website at www.eaton.com/wiringdevices**

Compliances, specifications and availability are subject to change without notice.

Powering Business Worldwide

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Applications

The MicroSet self-adjusting technology continuously monitors multiple sub-frequencies in the event that if a continuous Doppler shift occurs, such as those created by airflow from an air duct, the sensor will identify the noise as continuous and then block it out of view at a select sub-frequency. It will continue to monitor other sub-frequencies for human motion. This avoids false-activation, while still maintaining the high level of sensitivity that is necessary for sensing minor motion in a changing environment. Separate concurrent time delays for both Passive Infrared and Ultrasonic technologies avoid false activations or deactivations. In Automatic ON Mode, the lights turn ON when a person enters the room.

Table 4. Specifications

Catalog no.	AHAC-DT - low voltage series
Technology	Passive Infrared (PIR) and Ultrasonic (US)
Power Requirements	**Input** 10-30 VDC from Greengate Switchpack or Greengate system Maximum current needed is 25mA per sensor
	Output Open collector output to switch up to ten Greengate Switchpacks Isolated Form C Relay Ratings: 1A 30 VDC/V/AC
Time Delays	Self-adjustable, 15 seconds/test (10 minutes Auto), or Selectable 5, 15, 30 minutes, or Zero Time Delay
Coverage	500, 1000, and 2000 sq. ft.
Light Level Sensing	0 to 300 foot-candles
Operating Environment	**Temperature:** 32°F - 104°F (0°C - 40°C) **Relative humidity:** 20% to 90%, non-condensing (For indoor use only)
Housing	Durable, injection molded housing. Polycarbonate resin complies with UL 94V-0
Size	1.42"H x 4.5"W (36.068mm x 114.3mm)
Mounting	Mounts directly to ceiling tile, to a 4" square box and round mud ring or to 4" octagon box
LED Indicators	Red LED for PIR detection; Green LED for Ultrasonic detection
Standards	FCC Compliant cULus Listed RoHS Compliant

Table 5. Specifications

Catalog no.	AHAC-DT - line voltage series
Technology	Passive Infrared (PIR) and Ultrasonic (US)
Power Requirements	120 to 347 V/AC, 50/60 Hz - Neutral required
	120 V/AC Incandescent/Tungsten - 0 to 800W, 50/60 Hz Fluorescent/Ballast - 0 to 1200W, 50/60 Hz Motor Load: 1/4 HP @ 125 V/AC
	230 V/AC Fluorescent/Ballast - 0 to 1200W, 50/60 Hz
	277 V/AC Fluorescent/Ballast - 0 to 2700W, 50/60 Hz
	347 V/AC Fluorescent/Ballast - 0 to 1500W, 50/60 Hz
Time Delays	Self-Adjusting, 15 seconds/test (10 minutes Auto), or Selectable 5, 15, 30 minutes
Coverage	2000 sq. ft
Light Level Sensing	0 to 300 foot-candles
Operating Environment	**Temperature:** 32°F - 104°F (0°C - 40°C) **Relative humidity:** 20% to 90%, non-condensing (For indoor use only)
Housing	Durable, injection molded housing. Polycarbonate resin complies with UL 94V-0
Size	1.42"H x 4.5"W (36.068mm x 114.3mm)
Mounting	Mounts directly to ceiling tile, to a 4" square box and round mud ring or to 4" octagon box
LED Indicators	Red LED for PIR detection; Green LED for Ultrasonic detection
Standards	FCC Compliant cULus Listed RoHS Compliant

Table 6. Color information

W (White)

W

White

Project Name:	Prepared By:
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Catalog Number:	Type:

Wiring diagrams

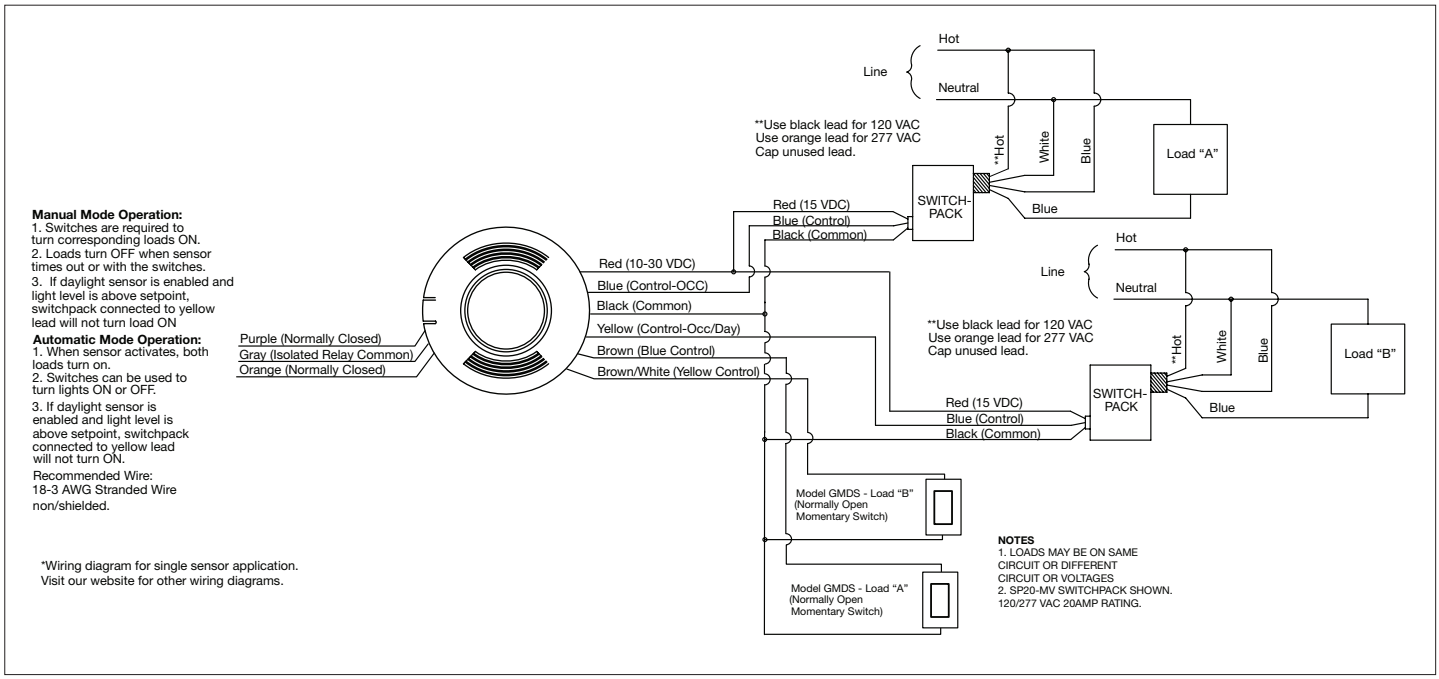

Figure 1. AHAC-DT-2000 Model

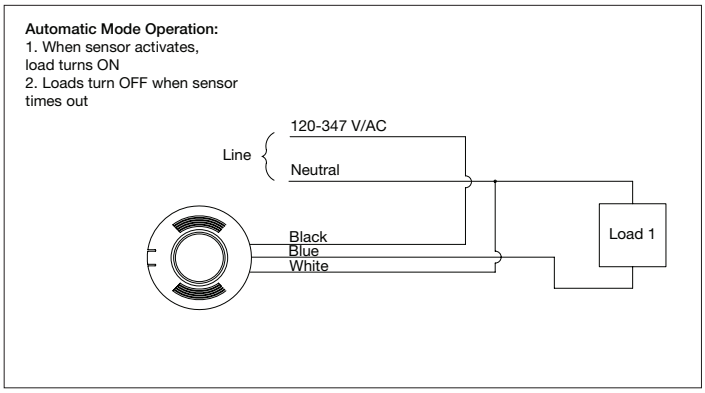

Figure 2. Single relay - line voltage series

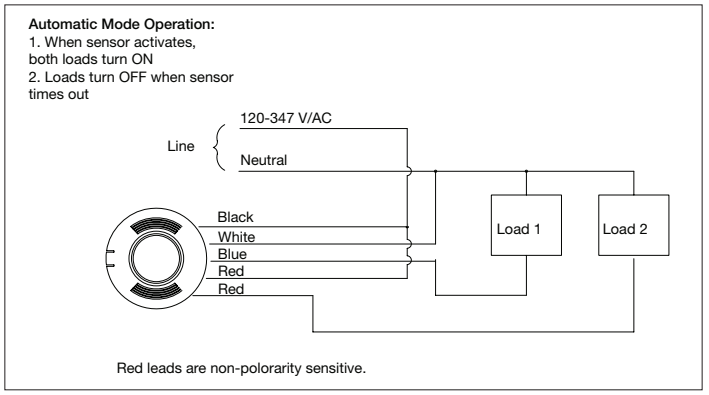

Figure 3. Dual relay - line voltage series