AHAWC-DT – Dual technology wall/corner sensor

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

Description

The dual technology sensor's combination of ultrasonic and passive infrared technologies offers the most complete sensing equipment available today. 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
- Optional built-in light level sensor
- Optional BAS/HVAC isolated relay
- NEMA WD7 Guide robotic method utilized to verify coverage patterns
- Manual On feature for use with 1 or 2 momentary switches controlling 1 or more Switchpacks
- Selectable walk-through mode

Table 1. Dual technology wall/corner sensor

Catalog no.	Coverage	Field of view	Features
☐ AHAWC-DT-120W	1200 sq. ft	Wide angle, 120°	—

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

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Powering Business Worldwide

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Applications

The AHAWC-DT combines Ultrasonic (US) and Passive Infrared (PIR) sensor technologies to monitor a room for occupancy to deliver maximum energy savings and ensure the greatest sensitivity and coverage for tough application without the threat of false triggers. PIR is used to turn the lights ON and then either or both technologies are used to keep the lights ON. The sensor includes MicroSet self-adaptive technology that continuously self-adjusts sensitivity and time delay in real-time, maximizing the potential energy savings that are available in particular application. In automatic on mode, the lights turn ON when a person enters the room. In manual-on mode, the lights are turned ON by activating a momentary switch (model # GMDS-*) that is connected to the sensor.

Table 2. Specifications

Catalog no.	AHAWC-DT series
Technology	Passive Infrared (PIR) and Ultrasonic (US)
Power Requirements	**Input** 0-30 VDC from Greengate Switchpack or Greengate System Maximum current needed is 25 mA 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-Adjusting, 15 seconds/test, 5, 10, 15, 30 minutes
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	4.4"H x 3.4"W x 2"D (112mm x 86.4mm x 50.8mm)
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 c(UL)us **RoHS** RoHS Compliant

Table 3. Color information

W (White)

W

White

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Wiring diagrams

Hot

Line

Neutral

**Use black lead for 120 VAC
Use orange lead for 277 VAC
Cap unused lead.

SWITCH-PACK

**Hot

White

Blue

Load "A"

Blue

Red (15 VDC)
Blue (Control)
Black (Common)

Manual Mode Operation:
1. Switches are required to turn corresponding loads ON.
2. Loads turn OFF when sensor times out or with the switch.

Automatic Mode Operation:
1. When sensor activates, both loads turn on.
2. Switches can be used to turn lights ON or OFF.
3. If daylight sensor is enabled and light level is above setpoint, switchpack connected to yellow lead will not turn ON.

Recommended Wire:
18-3 AWG Stranded Wire non/shielded.

Red (10-30 VDC)
Blue (Control-OCC)
Black (Common)
Yellow (Control-Occ/Day)
Brown (Blue Control)
Brown/White (Yellow Control)

Hot

Line

Neutral

**Use black lead for 120 VAC
Use orange lead for 277 VAC
Cap unused lead.

**Hot

White

Blue

Load "B"

Blue

SWITCH-PACK

Red (15 VDC)
Blue (Control)
Black (Common)

Purple (Normally Closed)
Gray (Isolated Relay Common)
Orange (Normally Closed)

Model GMDS - Load "B"
(Normally Open
Momentary Switch)

NOTES
1. LOADS MAY BE ON SAME CIRCUIT OR DIFFERENT CIRCUIT OR VOLTAGES
2. SP20-MV SWITCHPACK SHOWN. 120/277 VAC 20AMP RATING.

*Wiring diagram for single sensor application.
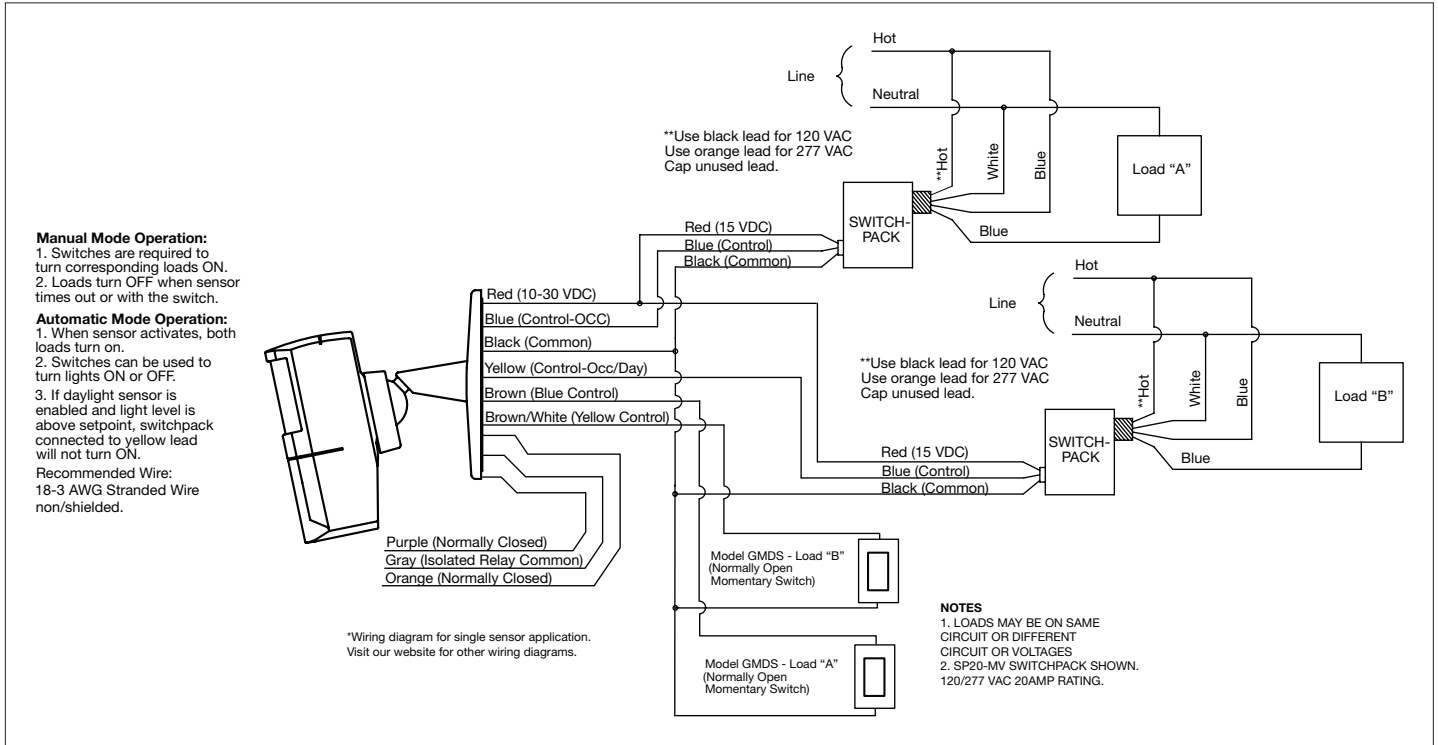Visit our website for other wiring diagrams.

Model GMDS - Load "A"
(Normally Open
Momentary Switch)

Figure 1. AHAWC-DT-120W Model

Coverage

32'
(9.8 m)

24'
(7.3 m)

16'
(4.9 m)

11'
(3.4 m)

0

11'
(3.4 m)

16'
(4.9 m)

32'
(9.8 m)

Minor Motion, IR

Major Motion, IR

Minor Motion, Ultrasonic

Major Motion, Ultrasonic

Maximum coverage area may vary somewhat according to room shape and the presence of obstacles.

10 ft
(3 m)

24'
(7.3 m)

6 ft
(1.7 m)

15 ft
(4.6 m)

24 ft
(7.3 m)

50 ft
(15.3 m)