Eaton's Arrow Hart
Universal Dimmers and Sensors

Reliable lighting control for commercial installations

F·T·N

Powering Business Worldwide

Eaton's sensors and dimmers are cost-effective solutions for commercial lighting control installations

With Eaton's solutions you have the right control every time.

Eaton's wiring devices now offer **code-compliant,** commercial wallbox lighting control devices that combines **dimming technology & energy savings** while helping to reduce installation costs for your commercial buildings.

❶ Universal Phase Selectable Dimmer - SUF7

The premium solution combines latest dimming technology & energy savings in ONE Eaton device. Universal Phase Selectable Dimmers allow the user to select between forward & reverse phase-cut dimming which helps in expanding lamp compatibility. Dimmers can save energy by reducing the flow of power to the fixture & allowing lights to operate at lower power levels. Operating at lower power levels helps in reducing stress caused on the lights and increase the life span of the fixtures.
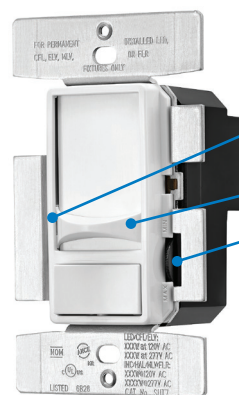
❷ Universal Slide Dimmer - SUT7

The high wattage solution for dimming the most common lighting loads.

Universal Slide Dimmer ratings are among the industry's leading wattage ratings for dimmable LEDs & CFLs.
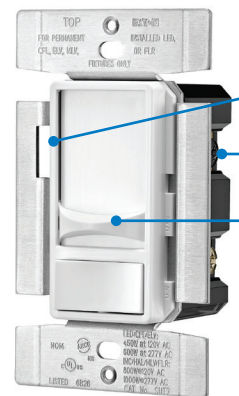
❸ 0-10V Dimmer Sensor - OS10D7, VS10D7

The ultimate solution to reduce energy and installation cost.

Replace a switchpack, sensor & 0-10V dimmer with ONE Eaton 0-10V Dimmer Sensor.

❶ Universal Phase Selectable Slide Dimmer

- Switch to select type of Phase-cut dimming
- Full slide control with preset
- Adjustable low-end trimming for increased lamp compatibility

❷ Universal Slide Dimmer

- Adjustable low-end trimming for increased lamp compatibility
- Screw terminals for easy & quick installation
- Full slide control with preset

❸ 0-10V Dimmer Sensor

- Color matched, tamper resistant lens
- Dimming control provided with horizontal dim/bright bar
- Green LED indicates motion detection
- Selectable time delay with manual OFF

Code Compliance: Solutions to help comply with energy codes including ASHRAE 90.1 & California Title 20

Universal dimmers

Universal phase selectable slide dimmers

Product description

Single pole & 3-way
Dimmable **LED/CFL/FLR**; 450W, 120V/AC; 450W, 277V/AC
INC/HAL/ELV; 650W, 120V/AC; 1000W, 277V/AC

Design features

- Select between forward and reverse phase cut dimming for the most optimal dimming compatibility
- Dual rated for 120/277V/AC
- Adjustable low-end trimming for increased lamp compatibility
- No de-rating for LED/CFL loads in multi-gang applications
- Integrated full slide control for easy, precise operation
- Ideal for commercial and residential applications
- Neutral required for installation
- Fits standard decorator wallplates
- Do Not use with MLV loads

SUF7

Universal phase selectable slide dimmers cULus NOM 426

| Description | Compatible lamp types | Rating | | Color suffix | Catalog no. |
		Watt	V/AC		
Universal phase selectable slide dimmer	LED/CFL/FLR	450	120	BK, GY, LA, V, W	☐ SUF7-__
		450	277		
	INC/HAL/ELV	650	120	BK, GY, LA, V, W	
		1000	277		

Universal slide dimmers (Forward Phase-cut)

Product description

Single pole & 3-way
Dimmable **LED/CFL/FLR**; 450W, 120V/AC; 600W, 277V/AC
INC/HAL/MLV/ELV; 720W, 120V/AC; 1000W, 277V/AC

Design features

- Universal dimming of most common lighting loads (phase-cut)
- Dual rated for 120/277V/AC
- Adjustable low-end trimming for increased lamp compatibility
- No de-rating for LED/CFL loads in multi-gang applications
- Integrated full slide control for easy, precise operation
- Ideal for commercial and residential applications
- No neutral required for installation
- Fits standard decorator wallplates

SUT7

Universal slide dimmers cULus NOM 426

| Description | Compatible lamp types | Rating | | Color suffix | Catalog no. |
		Watt	V/AC		
Universal slide dimmer (forward phase-cut)	LED/CFL/FLR	450	120	BK, GY, LA, V, W	☐ SUT7-__
		600	277		
	INC/HAL/ MLV/ELV	720	120	BK, GY, LA, V, W	
		1000	277		

Color ordering information

For ordering devices, include Catalog no. followed by the color suffix: BK (Black), GY (Gray), LA (Light Almond), V (Ivory), W (White)

BK	GY	LA	V	W
(Black)	(Gray)	(Light Almond)	(Ivory)	(White)

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

0-10V Dimmer sensors

Occupancy & vacancy dimmer sensors

Product description

Single pole & 3-way
10A @ 120V/AC
8A @ 277V/AC
0-10VDC **FLR** and **LED** ballasts

OS10D7

Design features

- 3 in 1 device combining dimming, switching and motion sensing
- Digital PIR sensor for occupancy (Auto ON/Auto OFF) and vacancy (Manual ON/Auto OFF) sensing
- Provides 180 degree field of view and 1000 sq. ft. of major motion coverage
- Full-range preset dimming control provided with horizontal dim/bright bar
- Green LED indicates motion detection
- Selectable ambient light override in occupancy sensor models

- Selectable time delay of 15 seconds (Test mode, changes to 2 minutes after 2 minutes of powering up), 5 minutes (factory default), 15 minutes and 20 minutes
- Occupancy Sensor version can be toggled between Auto ON/Auto OFF or Manual ON/Auto OFF
- Vacancy sensor meets California Title 20 (VS10D7 only)
- Compatible with any decorator wallplate or screwless decorator wallplate
- Neutral required for installation of device

Occupancy & vacancy dimmer sensors   c(UL)us NOM 426

Description	Compatible lamp types	Rating Watt	V/AC	Color suffix	Catalog no.
Occupancy sensor & dimmer with LED single pole/3-way preset	0-10VDC LED/FLR	1200 2200	120 277	BK, GY, LA, V, W	☐ OS10D7-__
Vacancy sensor & dimmer with LED single pole/3-way preset	0-10VDC LED/FLR	1200 2200	120 277	BK, GY, LA, V, W	☐ VS10D7-__

Color ordering information

For ordering devices, include Catalog no. followed by the color suffix: BK (Black), GY (Gray), LA (Light Almond), V (Ivory), W (White)

BK	GY	LA	V	W
(Black)	(Gray)	(Light Almond)	(Ivory)	(White)

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

Decorator & slide dimmers

Decorator & slide dimmers

Product description
Single pole & 3-way
1200W @ 120V/AC
1600W @ 277V/AC
0-10VDC **FLR** and **LED** ballasts

DF10P

Design features
- Preset feature allows user to return to previous light level when turning lights ON
- Integrated full-slide control for easy, precise operation
- Can be wired as single pole or 3-way
- Neutral is not required for installation of device
- Adjustable high-level trim setting for optimal lamp compatibility

- Decorator dimmers have removable faceplates to allow for color changes and each package includes three colors
- Color change kits (DF10P only)
- Compatible with dimmable LED and fluorescent 0-10V ballasts
- Compatible with any decorator wallplate or screwless decorator wallplate
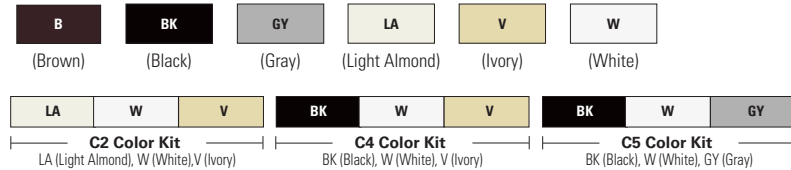
Decorator dimmers   cULus   NOM 426

Description	Compatible lamp types	Rating Watt	Rating V/AC	Color suffix	Catalog no.
Decorator dimmer Single pole/3-way preset	0-10VDC LED/FLR	1200 1600	120 277	C2, C4, C5	☐ DF10P-__
Color change faceplate for DF10P	–	–	–	B, BK, GY, LA,V, W	☐ DCK1-__

Slide dimmers   cULus   NOM 426

Description	Compatible lamp types	Rating Watt	Rating V/AC	Color suffix	Catalog no.
Slide dimmer Single pole/3-way preset	0-10VDC LED/FLR	1200 1600	120 277	B, BK, GY, LA, V, W	☐ SF10P-__

SF10P
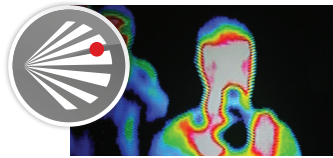
Color ordering information
For ordering devices, include Catalog no. followed by the color suffix: B (Brown), BK (Black), GY (Gray), LA (Light Almond), V (Ivory), W (White), C2 (Color Change Kit: LA, W, V), C4 (Color Change Kit: BK, W, V), C5 (Color Change Kit: BK, W, GY),

B	BK	GY	LA	V	W
(Brown)	(Black)	(Gray)	(Light Almond)	(Ivory)	(White)

LA	W	V

C2 Color Kit
LA (Light Almond), W (White),V (Ivory)

BK	W	V

C4 Color Kit
BK (Black), W (White), V (Ivory)

BK	W	GY

C5 Color Kit
BK (Black), W (White), GY (Gray)

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

Eaton's Sensor Technology Defined

Different types of **sensor technologies** have been designed to overcome a variety of diverse room layout challenges and optimize **energy savings**
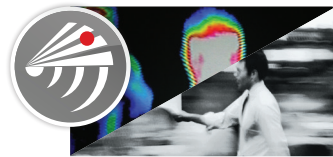
Passive Infrared (PIR) Sensors
• Detects motion from heat emitting sources (people)
• Requires direct line-of-sight
• Best in applications to detect larger movements, or "Major Motion"

Ultrasonic Sensors
• Emits low intensity, inaudible sound
• Detects motion based on changes in sound waves (Doppler principle)
• Volumetric in nature, no line-of-sight required
• Excellent for detecting small movements, or "Minor Motion", and rooms with potential obstructions like bathrooms or libraries

Dual Technology
• Combines PIR and Ultrasonic technology
• Requires BOTH technologies to be triggered to turn lights ON, but will accept either PIR or Ultrasonic signal to maintain lights ON
• Helps eliminate false ON and OFF activity
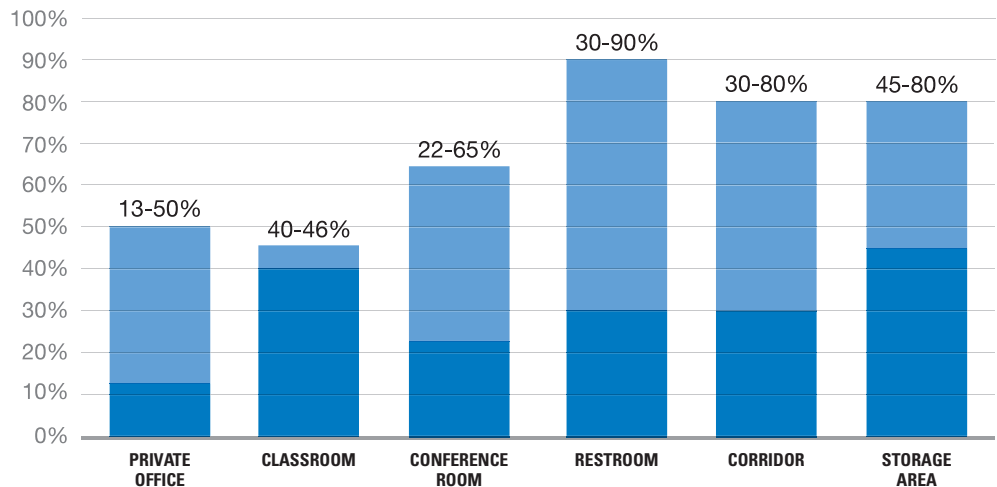• Greatest sensitivity and coverage area, for both Major and Minor Motion

Potential energy saved by room type

Significant return on investment can be realized by installing Eaton's commercial lighting controls

- ⚡ Reduce energy consumption
- $ Save money
- 🏭 Reduce carbon footprint

Room Type	Potential energy saved
PRIVATE OFFICE	13-50%
CLASSROOM	40-46%
CONFERENCE ROOM	22-65%
RESTROOM	30-90%
CORRIDOR	30-80%
STORAGE AREA	45-80%

Matching technology with the right environment

Application and environment are critical to selecting the right sensor to optimize functionality and maximize return on investment.

	PIR Wall Mount	Dual Technology Wall Mount	PIR Ceiling Mount	Ultrasonic Ceiling Mount
Coverage Type	Line-of-sight	Complete coverage, line-of-sight, volumetric	Line-of-sight	Volumetric
Appropriate Environments	Smaller enclosed spaces with no obstructions	Fluctuating activity levels, very low motion levels	Spaces where sensor has a line-of-sight to occupant	Open spaces with obstacles, very low motion levels
Inappropriate Environments	Very low motion levels, obstacles blocking the sensor from the occupant	Large open spaces	Very low motion levels, obstacles blocking the sensor from the occupant	Very high ceilings, extreme air flow or vibration

Commercial wallbox sensors

Wallbox sensors

Design features

- Selectable automatic ON mode or manual ON mode
- Convenient installation and test mode for set up
- Adjustable built-in light level sensor for additional energy savings
- Selectable time delay
- California Title 20 compliant
- For use with incandescent lamps, halogen fixtures, electronic and magnetic fluorescent ballasts, and electrical motor loads
- Wallplate included with OSP10 & OSD10 models

- Dual rated: 120V and 277V in the same unit
- Single pole or 3-way wiring
- Manual OFF push button can be used in either automatic or manual mode
- Reinforced lens is tamper-resistant
- Zero-crossing switching technology to maximize relay life and ensure wall switch longevity
- Fits standard size decorator wallplate

OSP10

OSP10M

OSD10DN

Wire leads – wall mount PIR with instinct (no neutral) c(UL)us

Coverage area	Description	Color suffix	Catalog no.
1000 sq. ft. major motion (92.2 sq. m) 300 sq. ft. minor motion (27.9 sq. m)	180° passive infrared single relay occupancy sensing wall switch	BK, GY, LA, V, W	☐ OSP10-__
	180° passive infrared dual relay occupancy sensing wall switch	BK, GY, LA, V, W	☐ OSP10D-__

cULus listed

Wire leads – wall mount PIR (no neutral) c(UL)us

Coverage area	Description	Color suffix	Catalog no.
1000 sq. ft. major motion (92.2 sq. m) 300 sq. ft. minor motion (27.9 sq. m)	180° passive infrared single relay occupancy sensing wall switch	BK, GY, LA, V, W	☐ OSP10M-__

cULus listed

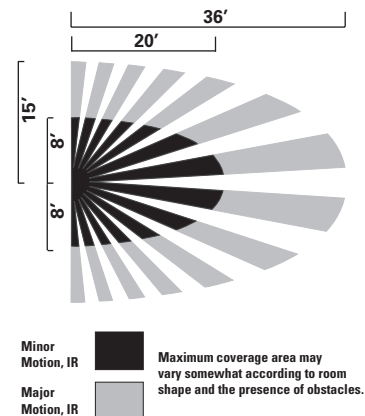### Wire leads – wall mount dual tech with instinct (neutral required) c(UL)us

Coverage area	Description	Color suffix	Catalog no.
1000 sq. ft. major motion (92.2 sq. m) 300 sq. ft. minor motion (27.9 sq. m)	180° dual tech single relay occupancy sensing wall switch	BK, GY, LA, V, W	☐ OSD10N-__
	180° dual tech dual relay occupancy sensing wall switch	BK, GY, LA, V, W	☐ OSD10DN-__

cULus listed

Electronic specifications

OSP10, OSP10D, OSD10N, OSD10DN	OSP10M
Power requirements: 120/277V/AC @ 60Hz	**Power requirements:** 120/277V/AC @ 60Hz
Maximum load: Incandescent/halogen: @120V/AC, 6.7A, 800W, 60Hz	**Maximum load:** Incandescent/halogen: @120V/AC, 60Hz, 15A, 1800W
Fluorescent: @120V/AC, 10A, 1200W, 60Hz @277V/AC, 9.8A, 2700W, 60Hz	Magnetic ballast (Fluorescent, MLV): @120V/AC, 60Hz, 15A, 1800VA @277V/AC, 60Hz, 8A, 2200VA
Motor: @120V/AC, 1/4 HP @125 V/AC	Electronic ballast (Fluorescent, CFL/LED/ELV lighting): @120V/AC, 60Hz, 10A, 1200VA @277V/AC, 60Hz, 8A, 2200VA
	Motor: @120V/AC, 60Hz, 1/2 Hp

Coverage area

Minor Motion, IR

Major Motion, IR

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

Color ordering information

For ordering devices, include Catalog no. followed by the color suffix: BK (Black), GY (Gray), LA (Light Almond), V (Ivory), W (White)

BK	GY	LA	V	W
(Black)	(Gray)	(Light Almond)	(Ivory)	(White)

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

Commercial ceiling sensors

Commercial ceiling sensors

Product description

Coverage: 500, 1000, 2,000 sq ft
Frequency: 40, 32kHz
Technology: Dual technology, Passive infrared (PIR), Ultrasonic

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
- Selectable walk-through mode
- California Title 20 Compliant

AHAC-U-2000-MV

AHAWC-DT-120W

AHSP20-MV

Commercial ceiling sensors   c(UL)us   RoHS

Description	Coverage	Field of view	Frequency	Features	Catalog no.
MicroSet dual tech low voltage	500 sq. ft.	One way (180°)	40 kHz	—	☐ AHAC-DT-0501
	1,000 sq. ft.	Two way (360°)	32 kHz	—	☐ AHAC-DT-1000
	2,000 sq. ft.	Two way (360°)	32 kHz	—	☐ AHAC-DT-2000
MicroSet dual tech line voltage	2,000 sq. ft.	Two way (360°)	32 kHz	Dual relay with daylight sensor	AHAC-DT-2000-DMV
	2,000 sq. ft.	Two way (360°)	32 kHz	With daylight sensor	AHAC-DT-2000-MV
MicroSet PIR low voltage	500 sq. ft.	(360°)	—	—	☐ AHAC-P-0500
	1,500 sq. ft.	(360°)	—	—	☐ AHAC-P-1500
MicroSet PIR line voltage	500 sq. ft.	(360°)	—	With daylight sensor	☐ AHAC-P-0500-MV
	500 sq. ft.	(360°)	—	Dual relay with daylight sensor	☐ AHAC-P-0500-DMV
	1,500 sq. ft.	(360°)	—	With daylight sensor	☐ AHAC-P-1500-MV
	1,500 sq. ft.	(360°)	—	Dual relay with daylight sensor	☐ AHAC-P-1500-DMV
MicroSet ultrasonic low voltage	500 sq. ft.	One way (180°)	40 kHz	—	☐ AHAC-U-0501
	1,000 sq. ft.	Two way (360°)	32 kHz	—	☐ AHAC-U-1000
	2,000 sq. ft.	Two way (360°)	32 kHz	Dual relay with daylight sensor	☐ AHAC-U-2000
MicroSet ultrasonic line voltage	2,000 sq. ft.	Two way (360°)	32 kHz	Dual relay with daylight sensor	☐ AHAC-U-2000-DMV
	2,000 sq. ft.	Two way (360°)	32 kHz	With daylight sensor	☐ AHAC-U-2000-MV
Dual tech wall/corner sensor	1,200 sq. ft.	Wide angle (120°)	—	—	☐ AHAWC-DT-120W
Passive infrared wall/corner sensor	1,200 sq. ft.	Wide angle (120°)	—	—	☐ AHAWC-P-120W
	90 linear ft.	(180°)	—	—	☐ AHAWC-P-009L-H
MicroSet STEM accessory	—	—	—	—	☐ AHAC-STEM
Heavy duty switch pack	—	—	—	Capable of switching up to 20A	☐ AHSP20-MV

Commercial ceiling sensors sample number:

AHAC-DT-0501

Technology
DT = Dual Tech
P = Passive Infrared (PIR)
U = Ultrasonic

Color information

W (White)

W

(White)

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We make what matters work.*

*At Eaton, we believe that power is a fundamental part of just about everything people do. Technology, transportation, energy and infrastructure-these are things the world relies on every day. That's why Eaton is dedicated to helping our customers find new ways to manage electrical, hydraulic and mechanical power more efficiently, safely and sustainably. To improve people's lives, the communities where we live and work, and the planet our future generations depend upon. Because that's what really matters. And we're here to make sure it works.

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