

SELECTABLE MODE CONTINUOUS DIMMING FIXTURE INTEGRATED MOTION/PHOTO SENSOR

FSP-2X2D SERIES

Designed for LED fixtures and
rated for extreme temperatures

Fully adjustable intensity trim
level and time delay

Continuous dimming for
convenience and maximum
energy savings



FSP-202D

FSP-212D

Choice of four preconfigured
control modes plus test and
service modes

Lenses available for mounting
heights from 8' to 40'

IP66 rated when combined with
FSP-Lx lens (ordered separately)
and mounted in an IP rated fixture



DESCRIPTION

The FSP-2x2D series adds the convenience of automatic daylight response to the versatile FSP product family. These Passive Infrared (PIR) occupancy sensors provide automatic control of individual LED or fluorescent lighting fixtures in warehouses and other indoor highbay and lowbay spaces. The lens is designed to provide reliable coverage from a wide range of mounting heights (15' to 40'). Sensor functionality can be adjusted via rotary trimpots. The continuous dimming functionality automatically adjusts light-levels in the space based on ambient light contributions, maximizing energy savings.

OPERATION

The FSP-202D operates on 12-32VDC supplied by a power pack or auxiliary output driver; the FSP-212D operates on 120/277VAC or 230-240VAC Single Phase. The sensors has four distinct application modes and uses both PIR motion detection and ambient light levels to turn lighting on to the desired preset intensity. When a continuous dimming application mode is selected, the sensor automatically changes the intensity, based on ambient light contributions, to maintain the desired light level in the space.

APPLICATIONS

Three rotary trimpots are available on the sensor to facilitate setup and adjustment. Trim level for the selected application mode is set using the intensity trimpot adjustable from 1 to 10V. The time delay is selectable from 30 seconds to 30 minutes using a second trimpot; the cutoff delay for Mode B is 1/2 the value of the time delay. The application mode trimpot is used to define the application space and desired fixture response.

Mode A: Is recommended for traditional high/low/off applications. This mode uses a hold off light level set point, which can be adjusted to the desired light level or disabled using Set trimpot. Anytime occupancy is detected with ambient light level below the hold off set point, the load turns on.

Mode B (Default): Is recommended for continuous dimming applications and will turn the load completely off when the contribution of ambient light reaches the desired set point.

Mode C: Is recommended for continuous dimming applications and will dim the load down to the minimum desired light level when the contribution of ambient light reaches the desired set point.

Mode D: Is recommended for continuous dimming applications where different light levels are maintained during day hours versus night hours.

Mode E: Is the service and setup mode to adjust time delays and desired light levels. Refer to the installation instructions for detailed direction on making these adjustments.

PROJECT	LOCATION/ TYPE
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FEATURES

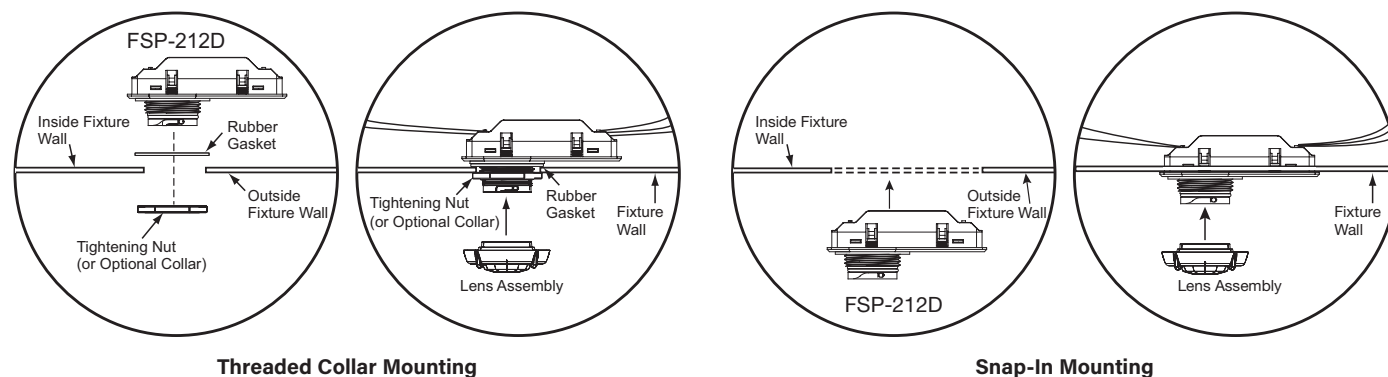
- Provides line voltage On/Off switching and 0-10VDC dimming control (FSP-212D)
- Continuous automatic intensity control based on daylighting contribution
- Works with ballasts or LED drivers
- High or low trim fully adjustable from 1 to 10V
- Time delay from 30 seconds to 30 minutes
- Optional cut off delay
- Optional shroud with integrated lens to block high-angle light
- Ramp up and fade down times (2 seconds; 10 seconds)
- Polycarbonate construction; flame retardant, UV resistant, impact resistant
- UL244A and UL508 listed, FCC and CE certified
- IP66 rated (when fully assembled and installed) for use in wet locations
- This product meets the materials restrictions of RoHS

SPECIFICATIONS

- Input voltage:
 - FSP-202D: 12-32VDC
 - FSP-212D: 120/277VAC, 50/60Hz; 230-240V, 50/60Hz, Single Phase
- Load ratings (FSP-212D):
 - @120 VAC 0-800W tungsten, ballast, LED driver*; 1/6hp motor
 - @277 VAC 0-1200W ballast, LED driver*; 1/6hp motor
 - @230/240V 0-500W ballast, LED driver*
- Relay life rating (FSP-212D): 200,000 cycles (120/277VAC); 50,000 cycles (230VAC)
- Trim level: 1-10V; default 1V
- Time delay: 30 sec.-30 min.; default 15 minutes
- Cut off delay: 1/2 of time delay
- Ramp up time: 2 seconds
- Fade down time: 0-10 seconds
- Operating conditions: -40 to 158°F (-40 to 70°C); 5-95% RH
- Dimensions:
 - FSP-202D - Body 2.18"L x 1.28"W x 0.73"H (55.1mm x 32.5mm x 18.6mm), Collar 1.30"dia. x 0.64"H (33.0mm x 16.3mm);
 - FSP-212D - Body 3.53"L x 1.28"W x 0.87"H (89.8mm x 32.5mm x 22mm), Collar 1.30"dia. x 0.64"H (33.0mm x 16.3mm)
- Weight: FSP-202, 1.31 oz (37 grams); FSP-212, 2.43 oz (69 grams)
- IP66 (when mounted inside a fixture)
- CE compliant
- UL and cUL listed (E101196)
- Five year warranty

* Not compatible with non-isolated LED drivers (FSP-212D only)

MOUNTING



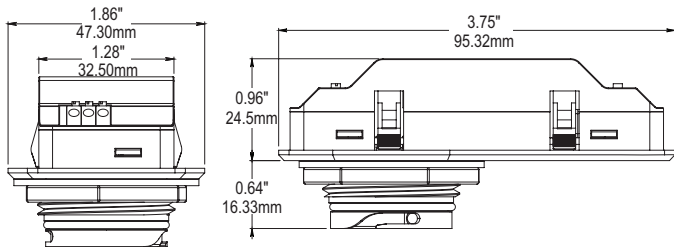
Threaded Collar Mounting

Snap-In Mounting

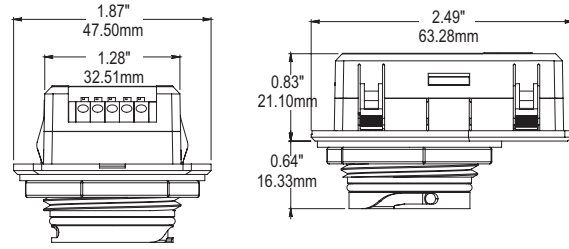
An optional collar can be installed in place of the tightening nut.

An optional shroud with integrated lens can be installed instead of the collar and a regular lens. The shroud blocks high-angle light coming from the fixture, to improve photocell performance.

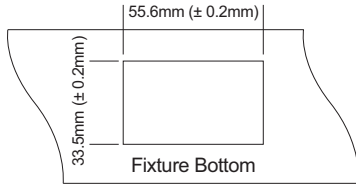
DIMENSIONS



FSP-212D Dimensions

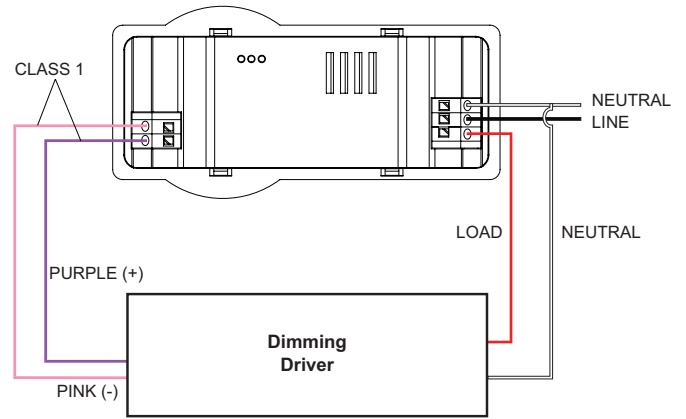
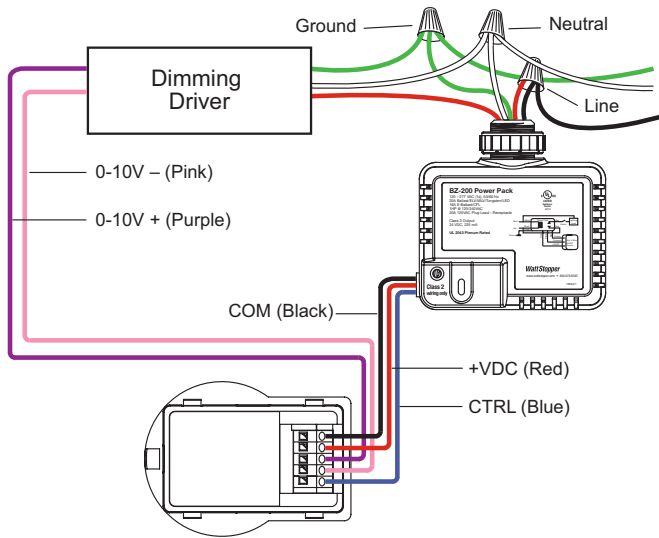


FSP-202D Dimensions



Cutout for snap-in mounting

DIMMING WIRING EXAMPLES



Line voltage FSP-212D wiring with dimming driver.

Low voltage FSP-202D with power pack for on/off; sensor also works with drivers that offer an auxiliary power output.

ORDERING INFORMATION

Catalog #		Color	Description	Voltage
<input type="checkbox"/>	FSP-202D	White	Continuous Dimming fixture mount, passive infrared motion sensor, low voltage	12-32 VDC
<input type="checkbox"/>	FSP-212D	White	Continuous Dimming fixture mount, passive infrared motion sensor	120-277VAC, 50/60Hz
<input type="checkbox"/>	FSP-L2	White	360° lens, maximum coverage 48' diameter from 8' height	
<input type="checkbox"/>	FSP-L2-B	Black		
<input type="checkbox"/>	FSP-L2-BR	Bronze		
<input type="checkbox"/>	FSP-L2-G	Grey		
<input type="checkbox"/>	FSP-L2-S	White	360° lens, maximum coverage 48' diameter from 8' height, with shroud; Minimizes high-angle light contribution to photocell	
<input type="checkbox"/>	FSP-L3	White	360° lens, maximum coverage 40' diameter from 20' height	
<input type="checkbox"/>	FSP-L3-B	Black		
<input type="checkbox"/>	FSP-L3-BR	Bronze		
<input type="checkbox"/>	FSP-L3-G	Grey		
<input type="checkbox"/>	FSP-L3-S	White	360° lens, maximum coverage 40' diameter from 20' height, with shroud; Minimizes high-angle light contribution to photocell	
<input type="checkbox"/>	FSP-L7	White	360° lens, maximum coverage 100' diameter from 40' height	
<input type="checkbox"/>	FSP-L7-B	Black		
<input type="checkbox"/>	FSP-L7-BR	Bronze		
<input type="checkbox"/>	FSP-L7-G	Grey		
<input type="checkbox"/>	FSP-L7-S	White	360° lens, maximum coverage 100' diameter from 40' height, with shroud; Minimizes high-angle light contribution to photocell	
<input type="checkbox"/>	FSP-C1-W	White	Small collar, for use with FSP-L2 and FSP-L3 lenses (Optional aesthetic collar to transition from fixture housing to lens) Note: Not used with lenses that include shroud	
<input type="checkbox"/>	FSP-C2-W	White	Large collar, for use with FSP-L7 lens (Optional aesthetic collar to transition from fixture housing to lens) Note: Not used with lens that includes shroud	

Note: Unless used with a driver or ballast with a low voltage power supply, the FSP-202D requires a Wattstopper power pack (ordered separately) to operate. FSP-Lx series lens required for operation; order lens separately.