FIXTURE SENSORS

FS Low Voltage PIR Fixture Occupancy Sensors

Complete line of occupancy sensors that integrate into lighting fixtures for any application

Modular plug system streamlines installation

Turn lights on and off based on occupancy and daylight level

Compact lens gives unobtrusive appearance in even the smallest fixtures

PROJECT
LOCATION/TYPE

Product Overview

Description

The FS Low Voltage Passive Infrared (PIR) Fixture Sensors control lighting based on occupancy. They are designed with a low-profile, architecturally pleasing appearance to easily integrate into a wide range of lighting fixtures or a customized housing. Additionally, the FS-105, -205 and -405 have an integrated photosensor that holds off connected loads when enough daylight is available to provide additional energy savings. Sensors' modular plug-in system utilizes an RJ45 connector on a low-voltage 6-ft. cord for installation flexibility, and to quickly link to a remote-mounted power pack.

Operation

When connected to an FS-PP Power Pack, the FS-105/205/305/405 sensors operate at 24 VDC to detect occupancy. Utilizing the latest PIR technology to detect the difference between heat emitted from the human body in motion and the background space, the FS sensor signals the FS-PP to close it's relay and turn on the connected load. After the defined area is vacated and the adjustable time delay (30 seconds to 30 minutes) has elapsed, the sensor signals the FS-PP to open its relay and turn off the connected load.

The daylighting circuits in the FS-105, -205 and -405 provide additional energy savings. Once the lights turn off after the time delay has elapsed, the daylighting circuit will keep the lights from turning back on upon new occupancy if there is sufficient ambient light available (adjustable from 10-120 fc) .

Applications

The FS-105, -205 and -305 all provide a 360° coverage pattern for up to 200 square feet when mounted at 8', yet have different applications based on the distinctive mounting options they each provide. All three work well in a small office, cubicle or utility room. And if the area has exposure to daylight, the FS-105 and -205 can provide additional energy savings by utilizing their incorporated photosensor to hold off the lights when there is 10-120 fc of ambient light at the sensor's point of installation.

The FS-105 is designed to mount remotely from the fixture(s) in a ceiling tile, and comes with a 6' whip to connect to its fixture-mounted FS-PP. The FS-205 is little enough to be easily integrated into even the smallest housings when zonal control of direct/indirect fixtures is required. The FS-305 has a long, threaded body for installation in a fixture with double-wall thickness where zonal control is needed for control of direct/indirect fixtures.

Due to its larger Fresnel lens, the FS-405 provides coverage for an area up to 300 square feet, also in a 360° coverage pattern, making it ideal for a medium-size open office or small conference room, especially one with access to 10-120 fc of daylight at the sensor's installation site to utilize its incorporated photosensor and benefit from additional energy savings.

Features

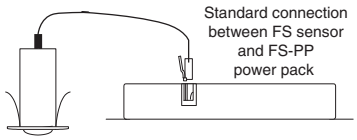
- Low-voltage 6-ft. whip with an RJ45 connector for easy installation
- Small footprint fits easily in fixtures
- Adjustable time delay (30 seconds to 30 minutes)
- Fresnel lenses for accurate detection patterns
- LED indicator of occupancy detection for easy verification of coverage
- Hold-off daylighting control in FS-105, -205 and -405

Specifications

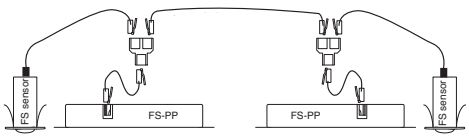
	FS-105	FS-205	FS-305	FS-405
				
Coverage at 8' ht	14' diameter (487.7cm)	16' diameter (487.7cm)	16' diameter (487.7cm)	18' diameter (609.6cm)
Operating Temperature	32-131°F (0-55°C)	32-131°F (0-55°C)	32-131°F (0-55°C)	32-131°F (0-55°C)
Dimensions*	throat 1" (25.4mm) diam. collar 1.4" (35.6mm) diam. length 4" (101.6mm)	throat .75" (19mm) diam. collar 1.12" (28.5mm) diam. lens pipe .38" (9.7mm) body 1.12" x 1.38" x .5" (28.5mm x 35mm x 12.7mm)	throat .75" (19mm) diam. collar 1" (25.4mm) diam. length 2.25" (57.2mm)	throat 1.14" (28.9mm) diam. collar 1.28" diam.(32.5mm) lens pipe .38" (9.7mm) body 1.38" x 2.35" x .88" (35mm x 59.7mm x 22.4mm)
Time Delay	30 seconds to 30 minutes	30 seconds to 30 minutes	30 seconds to 30 minutes	30 seconds to 30 minutes
Light Level	Hold off adjustable 10-120 fc	Hold off adjustable 10-120 fc		Hold off adjustable 10-120 fc
Placement	Ceiling mounted to provide optimal coverage (load switching is done by remote-mounted power pack	Compact design ideal for low-profile fixtures	Long, threaded body design ideal for installa-tion into fixtures with double wall thickness	Compact shape ideal for fixture integration.

Wiring & Coverage

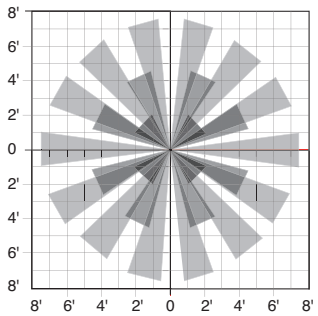
FS Low Voltage Wiring



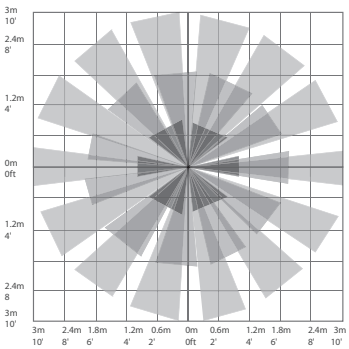
Multiple FS Low Voltage Sensors & Power Packs in One Fixture or Zone



Coverage Patterns @ 8 ft Mounting Height



FS-105,
FS-205,
FS-305



FS-405

Ordering Information

Catalog No.	Description	Load Capacity
☐ FS-105	Low Voltage PIR Ceiling Mount Occupancy Sensor; 24 VDC	Current Consumption 6.5mA
☐ FS-205	Low Voltage PIR Low Profile Fixture Occupancy Sensor, 24 VDC	Current Consumption 6.5mA
☐ FS-305	Low Voltage PIR Cylindrical Body Fixture Occupancy Sensor, 24 VDC	Current Consumption 6.5mA
☐ FS-405	Low Voltage PIR Compact Size Fixture Occupancy Sensor, 24 VDC	Current Consumption 6.5mA
☐ FS-PP	Fixture Power Pack 120/277 VAC; 60Hz	70mA @ 24 VDC

NOTE: All FS Low Voltage Sensors require an FS-PP or other Watt Stopper Power Pack (ordered separately) to operate.