# LINE VOLTAGE ULTRASONIC FIXTURE INTEGRATED OCCUPANCY SENSORS

FS-555/FS-555C

Line voltage for direct connection to load

Easily integrate into lighting fixtures

Ideal for stairwell, wall and ceiling mount applications



Ultrasonic technology for open area detection with line-of-sight obstructions

Ceiling and wall mount models

### DESCRIPTION

The FS-555 and FS-555C Line Voltage Ultrasonic 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.

#### **OPERATION**

When powered on, the FS-555 Series sensors use high frequency (40 kHz) ultrasonic technology to sense motion within a space and automatically turn lights on even when the sensor has no direct line of sight to occupants. After the area is vacated and the time delay has elapsed, the sensors automatically turn the lights off. Ultrasonic detection operates by transmitting sound waves throughout an area and measuring the speed at which they return. Movement increases the return frequency, which triggers occupancy.

The FS-555 Series sensors provide functions for testing, overriding the fixture 'ON' and a 100-hour lamp burn-in mode.

# **APPLICATIONS**

Typical applications for the FS-555 Series sensors include open office cubicles, offices, conference rooms, restrooms and hallways. This technology also provides superior detection in hard surfaced areas, such as stairwells and hallways.

For a large rectangular detection area with ceiling-mounted fixtures, the FS-555C provides excellent coverage. For specialized applications such as stairwells, the elongated coverage pattern of the FS-555 is ideal.

The FS-555 can provide bi-level lighting control in fixtures that have bi-level or dimming ballasts, resulting in up to 66% energy savings for fixtures that are on 24-hours a day, seven days a week, while still providing enough light for safety and egress.

#### **FEATURES**

- Ultrasonic technology (40Khz)
- · Compact design for installation in low-profile fixtures
- Three modes: override, burn-in and test modes
- 120/277 VAC; 50/60Hz, 1/10 hp

- Load @ 120 VAC 4.9A ballast, tungsten, compact fluorescent (CFL) and LED driver
- Load @ 277 VAC 4.9A ballast, compact fluorescent (CFL) and LED driver
- Current consumption: 43mA

LOCATION/

TYPE

PROJECT

# SPECIFICATIONS

- Voltage: 120/277 VAC
- Current Consumption: 43mA
- Time Delay: 5–30 minutes
- Coverage at 8 ft. height
  - FS-555: 24' (731.5cm) diameter
  - FS-555C: 30' x 24' (457.2 x 365.7cm)

# **APPLICATIONS**

- Operating Temperature: 32–131°F (0–55°C)
- Dimensions
  - Sensor body: 5.2"L x 1.26"W x 1.7"D (132.4mm x 32.0mm x 43.0mm)
  - Mounting base: 6.12" x 1.26" (155.4mm x 32.0mm)
  - Mounting hole centers: 5.72" x 0.8" (145.3mm x 20.0mm)



The FS-555 (no cones) is designed for use in wall-mounted lighting fixtures where the transducers face away from the wall at an angle of approximately 200 from vertical. It is particularly well suited for use in stairwell applications as well as in other wall mount applications.

# WIRING & COVERAGE

feet/meter

15' (4.5m)

12' (3.6m)

9' (2.7m)

6' (1.8m)

3' (0.9m)

20° from vertical

3' (0.9m)

6' (1.8m)

9' (2.7m)

12' (3.6m)

15' (4.5m)

18' (5.4m)

#### Coverage Patterns @ 8 ft Mounting Height

# 18' 21' 24' 5.5.4 6.4 7.3 15' 4.5.4 15' 4.5.4 15' 4.5.4 15' 4.5.4 15' 4.5.4 15' 4.5.4 15' 4.5.7 18' 2.7' 18' 2.7' 15' 4.5.7 15' 4.5.7 15' 4.5.7 12' 3.6 12' 3.6 12' 3.6 9' 2.7.7 12' 3.6 9' 2.7.7 15' 4.5.7 9' 2.7.7 12' 3.6 9' 2.7.7 12' 3.6 0 0 3' 0.9.7 0 0 3' 0.9.7 0 0 12' 3.6 12' 3.6 12' 3.6 12' 3.6 12'

#### The FS-555C includes directional cones over the transducers.

The FS-555C is designed for use in hanging light fixtures where the cones face downward over the coverage area. This gives the FS-555C a large rectangular shaped coverage pattern.

#### FS-555/555C Wiring Diagrams



**NOTE:** Per UL, the 0-10V negative dimming wire color has been changed from gray to pink.

# **ORDERING INFORMATION**

FS-555

Catalog #		Description
	FS-555	Line Voltage Ultrasonic Fixture Occupancy Sensor for Stairway Applications; 120/277 VAC fixture mount
	FS-555C	Line Voltage Ultrasonic Fixture Occupancy Sensor for Open Areas; 120/277 VAC fixture mount

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