

LOS-505 series

Line Voltage Occupancy Sensor



OVERVIEW

The LOS-505 series member of the TRANS family is a line voltage occupancy sensor with control logic in reverse of typical occupancy sensing control. This sensor employs a cutting edge quad element pyroelectric infrared sensor to provide omni-directional sensing capability of occupant's presence and movements. A pair of voltage free, normally closed (NC) dry contact outputs will be open for a period of programmable delay time when the sensor detects the presence of an occupant. The contacts will remain open as long as the sensor detects occupant activity before the delay time elapses.

The LOS-505 series has a built-in ambient light sensor (ALS) to inhibit opening the dry contacts if the ambient light level is higher than the threshold set. The Accu-Set digital potentiometers make the delay time (TIME) and ambient light level (LUX) setting easier, faster and more accurate than the conventional analog potentiometer. The sensor can be easily integrated with OEM lighting fixtures or ceiling mounted with specific mounting bracket. Multiple lens options are available to provide different detection coverage for different mounting heights.

This unique occupancy sensor can be used to inhibit the undesired operation that may be harmful or dangerous to the occupant. Typical applications include UV-based antimicrobial lighting control, radioactive operation, automatic chemical sterilization, hazardous material supply, and dangerous machine operation.

FEATURES

- Omni-directional quad element infrared sensor
- 120/277VAC universal line voltage operation
- Voltage free normally closed dry contact output
- Accu-Set potentiometer setting TIME and LUX
- Walk test and sensor operation LED indicator
- Direct lead wires for easy wiring connection
- OEM fixture integrated or attached mounting
- Recess, surface, or J-box mounting available
- Multiple changeable lens options for selection

APPLICATION

- Occupancy Inhibition Control
- Building Management System

The LOS-505 series occupancy sensor can be used to shut off the connected load by sensing the presence and movements of the occupant, or provide local occupancy status signal to the building management system. Different controls may be achieved via specific wiring connections. Basic wiring diagrams are included. Consult with an IR-TEC team member for the availability of complex control.

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TRANS

MOUNTING OPTIONS

The LOS-505Sx series provides multiple mounting options for versatile applications. The bracket will be shipped with the sensor when ordered with the respective code. Codes F and W allow the LOS-505Sx to be directly integrated with OEM light fixtures in any environment.

Code	Mounting Option	Mounting Bracket
F	Fixture Integrated	---
W	IP-66 Fixture Integrated	---
E	Fixture External	EMB-500
P	IP-66 Fixture External	PMB-500
S	Ceiling Surface	SMB-500
C	Junction Box	CMB-500

LENS OPTIONS

The LOS-505Sx series is available with following lens options which provide different coverage at different mounting height (H). When adding the lens code the lens is then automatically shipped with the sensor.

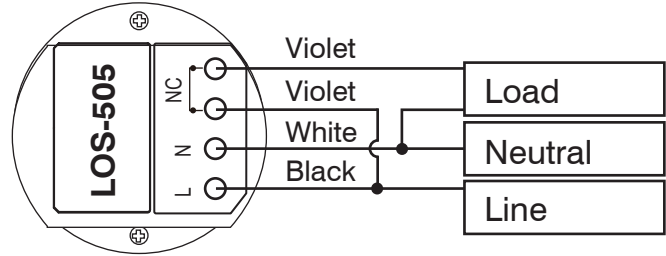
Lens	Shape	Mounting Height	Coverage
A	Standard	Cone	8~15 ft. 2.4~4.5m 2X height
B	Extra wide	Cone	8~10 ft. 2.4~3.0m 6X height
C	High bay	Cone	15~30 ft. 4.5~9.0m 3X height
D	Standard	Round	8~20 ft. 2.4~6.0m 2X height
F	Extra wide	Dome	8~20 ft. 2.4~6.0m 4X height
G	Aisle way	Arch	8~40 ft. 2.4~12.0m 3X height
H	High Bay	Dome	30~50 ft. 9.0~15.0m 1X height

Example: LOS-505SWB

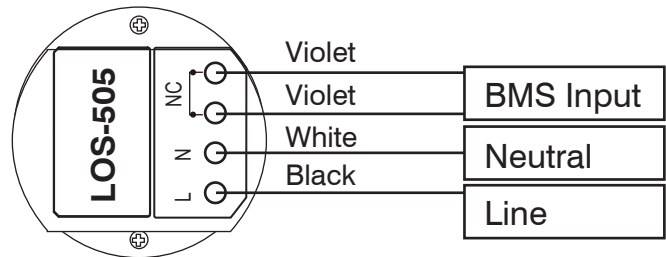
This sensor would come with ambient light sensor built-in and lens with extra wide detection for wet location control. Specific mounting bracket or lens may be order separately if needed. For help selecting sensors with proper mounting and lens options please visit www.irtec.com, send your inquiry to info@irtec.com or contact an IR-TEC team member directly.

WIRING DIAGRAM

A. Occupancy Inhibition Control



B. Building Management System



SPECIFICATIONS

Power supply	120/277VAC, 50/60Hz
Infrared sensor	Omni-directional quad element
Control Output	NC*, dry contact, 4A max.
Detectable speed	1~10 ft./sec. (0.3~3m/sec.)
Mounting height	Subject to the lens type applied
Detection range	Subject to the lens applied and height
Ambient light level	7 levels Accu-Set digital potentiometer
Delay time setting	T/1'/3'/5'/10'/20'/30', T=10 sec. for testing
Op. humidity	Max. 95% RH
Op. temperature	-40°F~-158°F (-40°C~70°C)
Dimensions	Ø2.36" x H1.45" (Ø60 x H37mm)

*Relay contacts open if sensor is not powered.