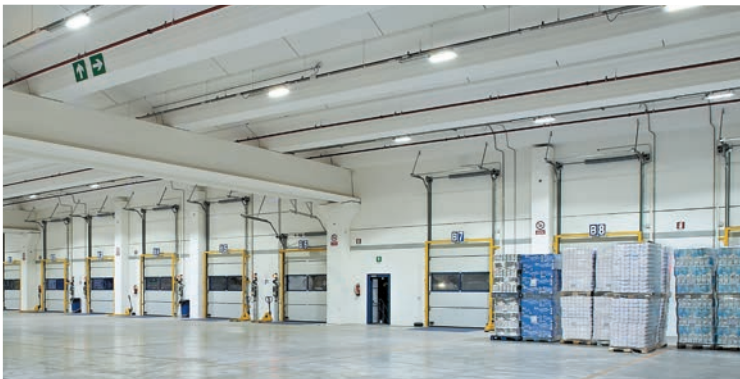


## LOS-509 series

### Line Voltage Occupancy Sensor



## OVERVIEW

The LOS-509 series member of the TRANS family is a line voltage switching occupancy sensor designed for all-purposes energy efficient lighting control.

This occupancy sensor employs a cutting edge quad element pyroelectric infrared sensor to provide omni-directional sensing capability of occupant's presence and movements. The Accu-Set digital potentiometer makes the sensor setting easier, faster and more accurate than the conventional analog potentiometer. An exclusive Hybrid Switching technology makes LOS-509 series ideal to control the lighting with exceptionally high inrush current (HIC) while switching on, such as multiple LED or CFL lightings connected in parallel.

Like all sensors in the TRANS family, the LOS-509 series is available with various mounting options and interchangeable lenses. This provides a second-to-none design and complete installation flexibility. The sensor is designed to operate in the coldest of environments, down to -40°C/°F.

The LOS-509 series comes with an ambient light sensor (ALS) to inhibit the lighting if ambient light levels are higher than required. The LOS-509 is designed to provide complete occupancy sensing for automatic lighting control, ease of use, and the simplest installation possible.

## FEATURES

- Omni-directional infrared sensor
- 100/120/240/277VAC multiple line voltage operation
- Hybrid switching for controlling loads with HIC
- Accu-Set potentiometer for quick and easy setting
- Walk test and sensor operation LED indicator
- Direct lead wires for easy wiring connection
- Available with a variety of mounting options
- Available with interchangeable lens options

## APPLICATION

### Light Control

The LOS-509 series occupancy sensor can be used to directly control the connected light, or other loads, by sensing the presence and movements of the occupant. Various control modes can be achieved by different wiring connections. Basic wiring diagrams are included. Consult with an IR-TEC team member if a more complex wiring diagram is required.

## LOS-509 series

### Line Voltage Occupancy Sensor

#### MOUNTING OPTIONS

The LOS-509Sxx 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-509Sxx 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
L	Ceiling Recess	LMB-500

#### LENS OPTIONS

The LOS-509Sxx 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.

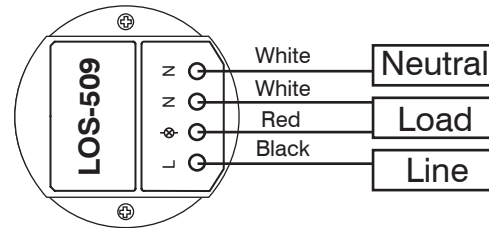
	Lens	Shape	Mounting Height		Coverage
A	Standard	Cone	8~15 ft.	2.4~4.5m	2X height
B	Extra wide	Cone	8~10 ft.	2.4~3.0m	6X height
C	High bay	Cone	15~30 ft.	4.5~9.0m	3X height
D	Standard	Round	8~20 ft.	2.4~6.0m	2X height
F	Extra wide	Dome	8~20 ft.	2.4~6.0m	4X height
G	Aisle way	Arch	8~40 ft.	2.4~12.0m	3X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

#### Example: LOS-509SWB

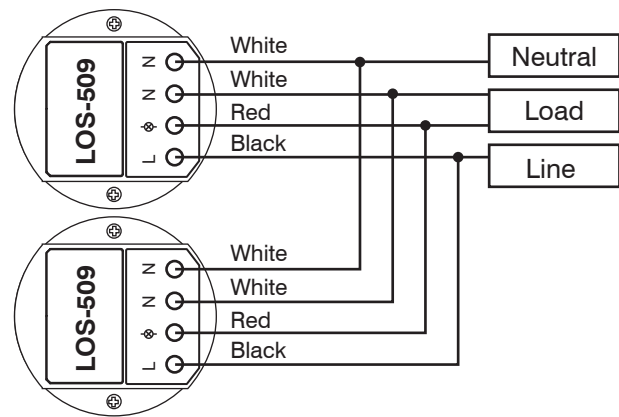
This sensor would come with ambient light sensor built-in and lens with extra wide detection for wet location control. Specific mounting bracket or lens may be order separately if needed. For help selecting sensors with proper mounting and lens options please visit [www.irtec.com](http://www.irtec.com),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

#### WIRING DIAGRAM

##### A. Single sensor control



##### B. Multiple sensors control



#### SPECIFICATIONS

Power supply	100/120/240/277VAC, 50/60 Hz		
Maximum load	100-120VAC	240VAC	277VAC
	-Incandescent/Halogen	800/*500W(VA)	5A 1200/*750W(VA)
	-Fluorescent Ballast/CFL	800/*500W(VA)	5A 1200/*750W(VA)
-Ballast Electronic (LED)	540/*500VA	5A	1200/*750VA
Infrared sensor	Omni-directional pyroelectric		
Load switching	Zero-cross Hybrid-Switching		
HIC protection	Max. 80A for 16.7msec.		
Detectable speed	0.3~3 m/sec (1~10 ft./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	10"/1'3'/5'/10'/20'/30' selectable		
Op. humidity	Max. 95% RH		
Op. temperature	-40°C~70°C (-40°F~158°F)		
Dimensions	Ø60 x H37mm (Ø2.36"x H1.45")		

\*Max load for operating temperature at 55°C~70°C (131°F~158°F)