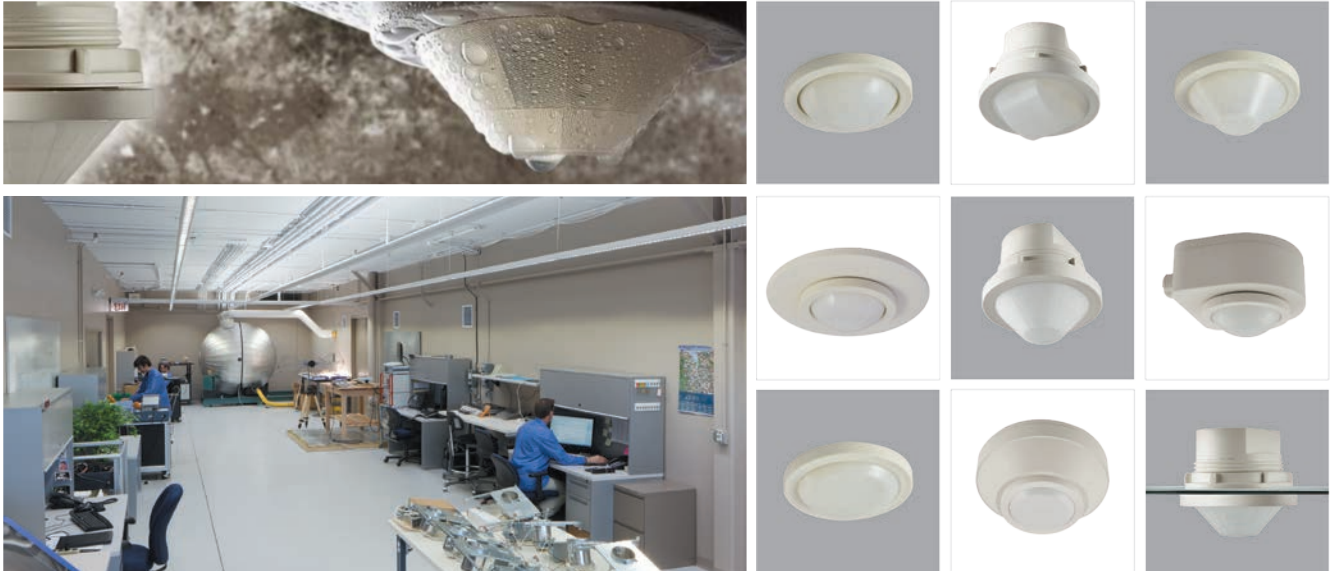# LOS-502 series

Line Voltage Occupancy Sensor

TRANS

OVERVIEW

The LOS-502 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.

Like all sensors in the TRANS family, the LOS-502 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°F/°C.

The LOS-502 series comes with an ambient light sensor (ALS) to inhibit the lighting if ambient light levels are higher than required. The LOS-502 is designed to provide complete occupancy sensing for automatic lighting control, ease of use, and the simplest installation possible.

FEATURES

- Omni-directional quad element infrared sensor
- 120/277VAC universal line voltage powered
- Frequency detection zero-cross relay switching
- Accu-Set potentiometer for quick and easy setting Walk
- test and sensor operation LED indicator
- Direct lead wires for easy wiring connection
- Available with variety of mounting options
- Available with interchangeable lens options

APPLICATION

☑ Light Control

The LOS-502 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.

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MOUNTING OPTIONS

The LOS-502x**X**x series can be mounted on the ceiling or attached to a fixture by combining a specific mounting bracket (if applicable) from the chart below. The bracket will be shipped with the sensor when ordered with the respective code. Codes F and W allow the LOS-502x**X**x 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-502xx**X** 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 shipped with the sensor.
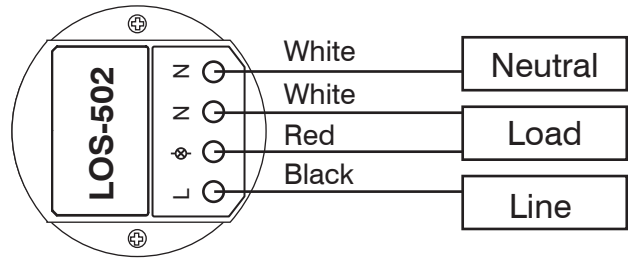
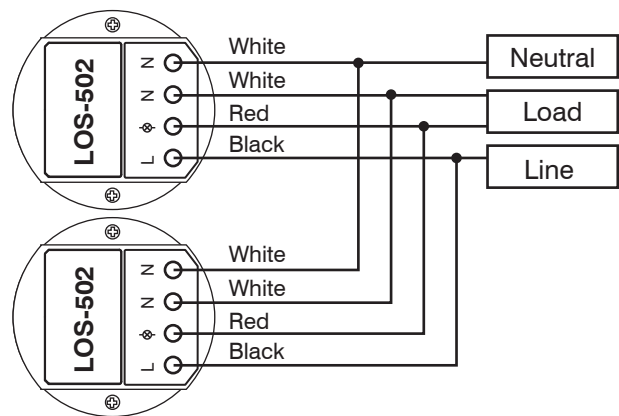|	Lens	Shape	Mounting Height		Coverage
A	Standard	Cone	8~15 ft.	2.4~4.5m	2X height
B	Extra wide	Cone	8~10 ft.	2.4~3.0m	6X height
C	High bay	Cone	15~30 ft.	4.5~9.0m	3X height
D	Standard	Round	8~20 ft.	2.4~6.0m	2X height
F	Extra wide	Dome	8~20 ft.	2.4~6.0m	4X height
G	Aisle way	Arch	8~40 ft.	2.4~12.0m	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-502SWB

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. Single sensor control

B. Multiple sensors control

SPECIFICATIONS

Power supply	120/277VAC, 50/60Hz
Maximum load @ -40°F~131°F (-40°C~55°C)	Fluorescent Ballast/CFL – 800/1200W(VA)@120/277V
	Ballast Electronic (LED) – 540/1200VA@120/277V
Maximum load @ 131°F~158°F (55°C~70°C)	Fluorescent Ballast/CFL – 500/750W(VA)@120/277V
	Ballast Electronic (LED) – 500/750VA@120/277V
Infrared sensor	Omni-directional quad element
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)