TRANS

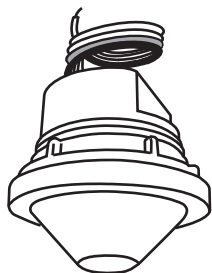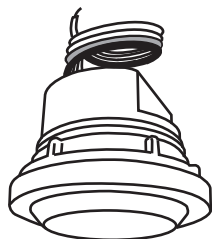## LOS-505 series
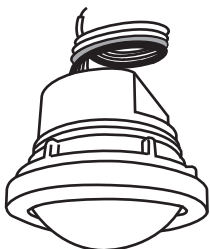Line Voltage Occupancy Sensor

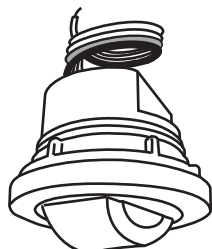## INSTALLATION INSTRUCTIONS

w/Lens A/B/C

w/Lens D

w/Lens F

w/Lens G

*More lens options are available for this sensor.
Please refer to the Lens Datasheet for more details.

INTRODUCTION

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 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.

INSTALLATION NOTES

1. The sensor is more sensitive to the movements "crossing" the detection zones than "toward" or "away" the sensor unit. To obtain better sensitivity, avoid placing the sensor in line with occupant path, if possible.

2. The closer the movement is to the sensor, the more sensitive the sensor is. The higher the sensor is installed, the larger movement is required to be detected.

3. Ensure to place the sensor at least at 1.5m (5 ft.) away from air supply ducts as rapid air flow may cause false activations.

4. The sensor cannot "see" the movements behind obstacles, such as furniture, shelf, glass or partition. As a general rule, each occupant should be able to clearly view the sensor unit.

5. For open office areas with partition which could block the sensor view to occupant movements, it is best to place the sensors over the intersection of multiple workstations. For large areas of open office or space, place multiple sensors so that there is overlap coverage with each adjacent sensor.
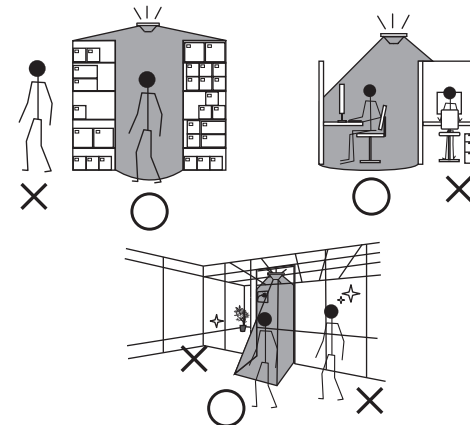
⚠ WARNING & CAUTION

- **Risk of Electric Shock - Disconnect power supply before servicing.**
- **Do NOT touch the square window of infrared sensor under the lens assembly.**
- **Open Type Photoelectric Switches.**
- **Cycling the power to the sensors will cause failure over time.**

⚠ AVERTISSEMENT & PRUDENCE

- **Risque de choc électrique -Débranchez l'alimentation avant l'entretien.**
- **Ne PAS toucher la fenêtre carrée de capteur infrarouge sous l'ensemble de l'objectif.**
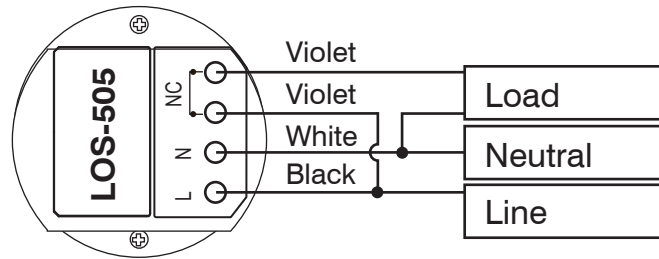- **Ouvrir Type commutateurs optoélectroniques.**

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IR-TEC

WIRING DIAGRAM

A. Occupancy Inhibition Control

LOS-505		
NC	Violet	
	Violet	Load
N	White	Neutral
L	Black	Line

B. Building Management System

| LOS-505		
NC	Violet	
	Violet	BMS Input
N	White	Neutral
L	Black	Line
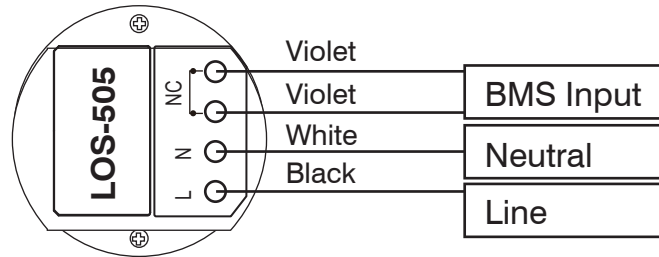
TESTING

Sensor Range Test

1. Ensure the shaft of LUX is set at "7" position and TIME is set at "1".

2. Walk within the desired range* at normal speed. The sensor's normally closed (NC) dry contact outputs will be open for 10 seconds whenever sensor detects the movement, then back to close.

3. After testing is complete, ensure to set the TIME to the postition of desired time. NOTE: The sensor will automatically operate as factory set time delay (10 minutes) if TIME has NOT been set to other position.

 * Depending on the lens type ordered and mounting height, the sensor could have different sensing coverage as instructed on the LENS DATASHEET attached.

SENSOR SETTINGS

TIME	LUX
(10 minutes) (Factory set)	(ALS disabled)
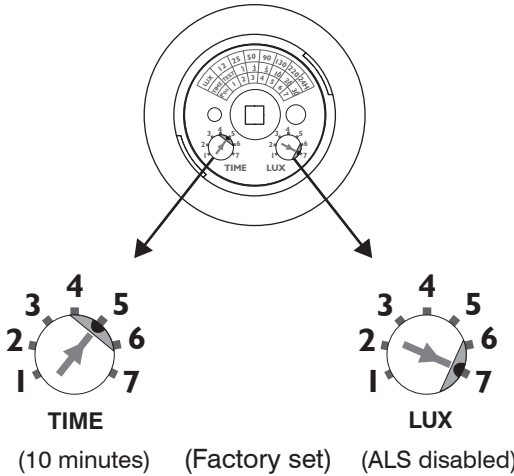
SW. POS.	1	2	3	4	5	6	7
TIME	T	1'	3'	5'	10'	20'	30'
LUX	12	25	50	90	130	220	24H

Factory Set

TIME - Delay Time

This sensor offers 7 different delay time selection via Accu-Set potentiometers. The sensor's normally closed (NC) dry contact ouputs will be open while sensor detects occupant's movement before the set delay time expires. Point the arrowhead on the TIME potentiometer to the desired time.

LUX - Ambient Light Level

This sensor offers 7 different ambient light level selection via Accu-Set potentiometers. The sensor's normally closed (NC) dry contact outputs will not open if the LUX value of ambient light is higher than set level. Point the arrowhead on the LUX potentiometer to the desired level.

SPECIFICATIONS

Power supply	100/120/240/277VAC, 50/60Hz
Infrared sensor	Omni-directional quad element
Control Output	NC*, dry contact, 4A max.
Detectable speed	0.3~3m/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	T/1'/3'/5'/10'/20'/30', T=10 sec. for testing
Op. humidity	Max. 95% RH
Op. temperature	-40°C~70°C (-40°F~158°F)
Dimensions	Ø60 x H37mm (Ø2.36"x H1.45")

*Relay contacts open if sensor is not powered.

WARRANTY

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