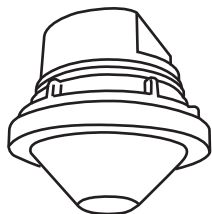


# TRANS

## LOS-510 series

Line Voltage Occupancy Sensor

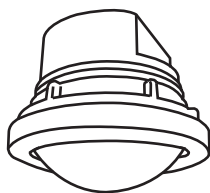
### INSTALLATION INSTRUCTIONS



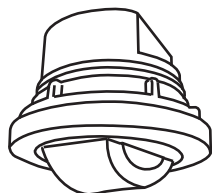
w/Lens A/B/C



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.

### OVERVIEW

The LOS-510 series member of the TRANS family is a line voltage switching occupancy sensor designed for all purposes energy efficient lighting control.

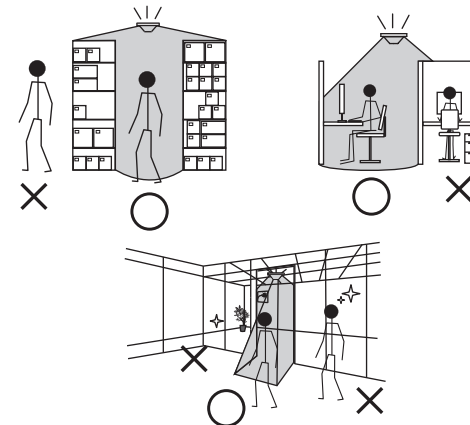
This occupancy sensor employs a cutting edge quad element pyroelectric infrared sensor to provide omni-directional sensing capability of occupant's presence and movements. Rotary DIP switches make the sensor setting easier, faster and more accurate than the conventional analogue potentiometer.

Like all sensors in the TRANS family, the LOS-510 series is available with various mounting options and interchangeable lens. This provides a second-to-none design and complete installation flexibility. The TRANS family is even designed to operate in the coldest of environments down to  $-40^{\circ}\text{C}/^{\circ}\text{F}$ .

The LOS-510 series comes with optional ambient light sensor (ALS) to inhibit the lighting if ambient light levels are higher than required. The LOS-510 is designed to provide complete occupancy sensing for automatic lighting control, ease of use, and the simplest installation possible.

### INSTALLATION NOTES

1. The sensor is more sensitive to the movement "crossing" the detection zones than "toward" or "away" the sensor. 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.
- Use AWG 16-20 solid conductor wires Strip length 8-9 mm / 0.31-0.35 in.
- 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.
- Utilisez AWG 16-20 fils conducteurs solides Longueur de la bande de 8-9 mm / de 0,31 à 0,35 en.
- Ouvrir Type commutateurs optoélectroniques.

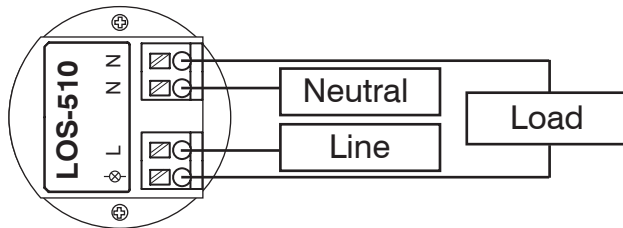


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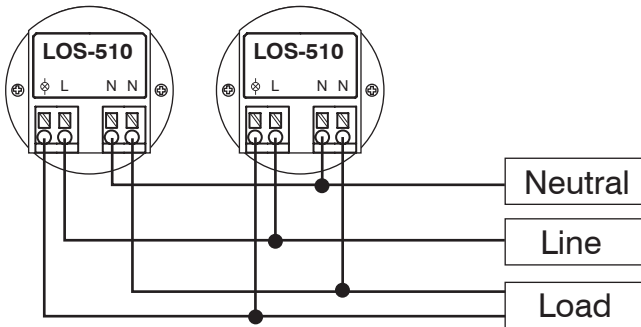
**IR-TEC**

## WIRING DIAGRAM

### A. Single sensor control



### B. Multiple sensors control



## TESTING

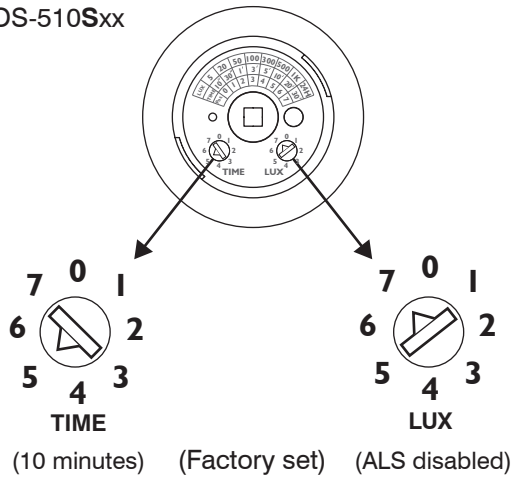
### Sensor Range Test

- For LOS-510Sxx, ensure the shaft of LUX is set at "7" position.
- Walk within the desired range\* at normal speed. Light should be switched ON as delay time set whenever sensor detects the presence or movement of occupant.
- The LED indicator behind the lens assembly will blink to indicate sensor detection as well.

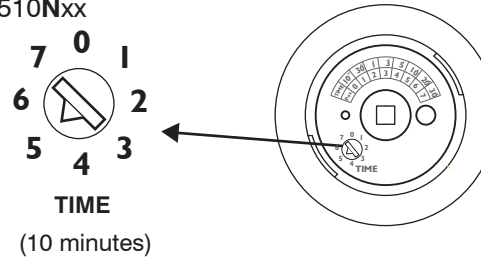
\* Depending on the lens type ordered and mounting height, the sensor could have different sensing coverage as instructed on the LENS DATASHEET attached.

## SENSOR SETTINGS

LOS-510Sxx



LOS-510Nxx



SW. POS.	0	1	2	3	4	5	6	7
TIME	10"	30"	1'	3'	5'	10'	20'	30'
LUX*	5	20	50	100	300	500	1K	24H

\*only available with LOS-510Sxx

Factory Set

### TIME - Delay Time

This sensor offers 8 different delay time selection via rotary DIP switch. The light will remain ON if sensor detects occupant's movement before the set delay time expires. Point the arrowhead on the TIME rotary DIP switch to the desired time.

NOTE: Ensure to set the DIP switch at "click" position.

### LUX - Ambient Light Level

The LOS-510S series offers 8 different ambient light level selection via rotary DIP switch. The sensor will not switch ON the light if the LUX value of ambient light is higher than set level. Point the arrowhead on the LUX rotary DIP switch to the desired level.

NOTE: Ensure to set the DIP switch at "click" position.

## SPECIFICATIONS

Power supply	100/120/240/277VAC, 50/60Hz
Maximum load	800W (VA)
Infrared sensor	Omni-directional quad element
Zero crossing	Automatic frequency detection
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	LOS-510Sxx: 8 levels selectable
Delay time setting	10"/30"/1'/3'/5'/10'/20'/30' selectable
Op. humidity	Max. 95% RH
Op. temperature	-40°C~55°C (-40°F~131°F)
Dimensions	Ø60 x H37mm (Ø2.36"x H1.45")

## WARRANTY

IR-TEC International Ltd. warrants this product to be free of defects in materials or workmanship for a period of five years from date of shipment. There are no obligations or liabilities on the part of IR-TEC International Ltd. for consequential damages arising out or in connection with the use or performance of this product or other indirect damages with respect to loss of property, revenue, or profit, or cost of removal, installation or reinstallation.