TRANS

REMOTE

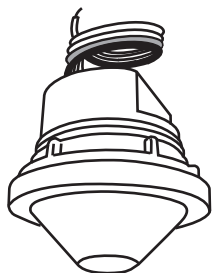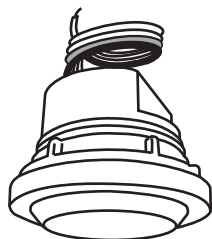## LRS-508 series EU
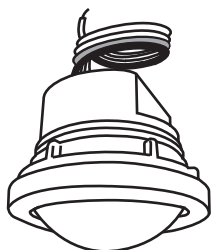
Line Voltage Occupancy/Vacancy Sensor
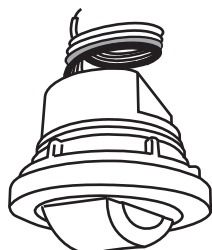
INSTALLATION INSTRUCTIONS

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 LRS-508 series member of the TRANS family is a remote programmable line voltage switching sensor designed to provide occupancy or vacancy sensing based lighting control for commercial, institutional, and industrial applications.

The sensor can be remotely set to control the associated lighting in typical "auto-on, auto-off" presence detection or "manual-on, auto-off" absence detection control together with a connected AC power-thru button switch. In addition to the single sensor and button control for smaller areas like personal offices, multiple sensors and buttons can also be wired together to control lighting for large areas like open offices or classrooms.

The sensor employs a cutting edge quad-element passive infrared (PIR) sensor with multiple lens options to provide omni-directional motion sensing capability. Specific delay time and the ambient light level for daylight inhibition can also be programmed remotely. An exclusive Hybrid Switching technology is employed to protect the sensor from the impact of high inrush current generated by the LED driver while switching on.

Like all other sensors in the TRANS family, the LRS-508 sensor is also available with multiple mounting and lens options which provide second-to-none design and installation flexibility. With LRS-508 sensor, you can effortlessly comply with the requirement of either presence or absence detection control. The sensor is designed to operate in the coldest of environments, down to -40°C/°F.

⚠ 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.**

APPLICATION 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.
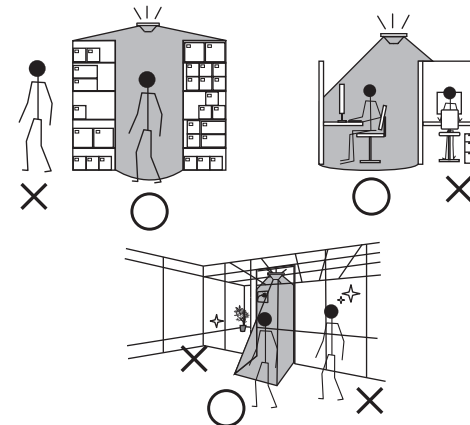
CE RoHS COMPLIANT

IR-TEC

CONTROL MODE

The LRS-508 sensor can be programmed by SRP-280 remote programmer to control the lighting in one of the following modes. For more details of specific control mode, please visit www.irtec.com or contact an IR-TEC team member directly.

Mode	Control
ON/OFF	1. While ambient lux is **higher** than the level set, light stays **OFF**. 2. While ambient lux is **lower** than the level set, and **occupancy detected**, switch the light to **ON**. 3. Turn **OFF** the light after occupant leave and delay time elapses.
VSC	This is a **vacancy sensing control** scheme can be applied in spaces that require users to manually turn **ON** the light, and have the sensor turn **OFF** the light automatically. 1. While ambient lux is **higher** than the level set, and **occupant press the button**, light stays **OFF**. 2. While ambient lux is **lower** than the level set, and **occupant press the button**, switch the light to **ON**. 3. Turn **OFF** the light after occupant leave and delay time elapses. **NOTE -** The sensor will automatically turn **ON** the light if it detects occupant activity within 30 seconds after time delay elapsed.

SENSOR ACKNOWLEDGMENT

| Acknowledgement	Sensor LED	Beep	Lighting
Full sensor setting upload completed	-	Long x 1 Short x 2	Flash x 2
Sensor resume to factory default	-	-	Flash x 2
Single setting ok	-	Short x 2	-
Occupancy detected	Flash x 1	-	-

SENSOR SETTINGS

The followings are settings and options available with LRS-508 that can be configured through the operation of SRP-280 remote programmer. For more details of remote sensor setting, please refer to the operation instruction of SRP-280.

Settings	Description	Options	Default
CONTROL	The mode that the sensor will control.	ON/OFF, VSC	ON/OFF
AMBIENT LUX	The ambient light level that sensor will perform the control.	10/20/40/60/100/200/400 LUX/DISABLED	DISABLED
DELAY	The delay time that sensor is set to turn off the light after the area is vacant.	30 sec./1/3/5/10/15/20/30/60 min.	10 min.
LED INDICATOR	Enable or disable the LED indicator of the sensor	ENABLED/DISABLED	ENABLED
SENSITIVITY	The sensitivity of occupancy sensor.	HIGH/NORMAL/LOW	HIGH

WIRING DIAGRAM

1. Single Sensor & Button Control
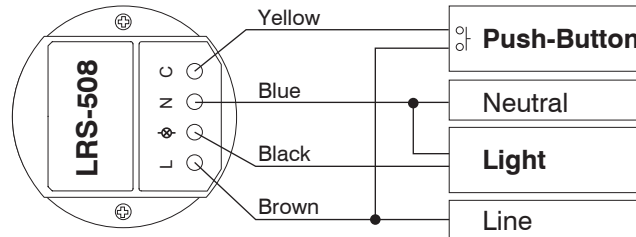
2. Multiple Sensors & Button(s) Control
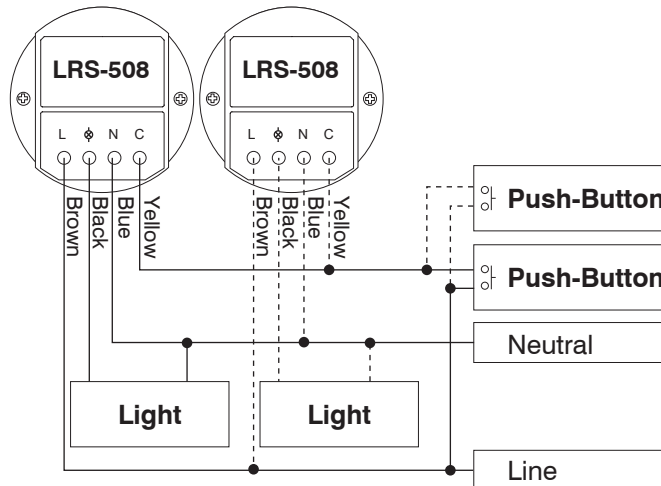
NOTE: The button should provide same phased AC mains power-through momentary contact.

SPECIFICATIONS

Power supply	220~240 VAC, 50/60 Hz
Maximum load	Ballast Electronic (LED) - 1200/*750VA
Infrared sensor	Omni-directional quad element pyroelectric
Load switching	Zero-cross Hybrid-Switching
Control input (C)	Momentary AC mains
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
Remote range	>10m (33 ft.) indoor, no backlight
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)

WARRANTY

IR-TEC International Ltd. warranties 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.

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