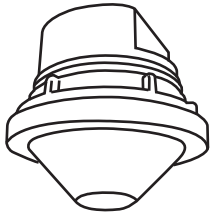


TRANS

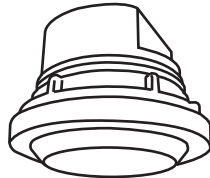
MRA-514 series

DALI-2 Occupancy & Light Sensor

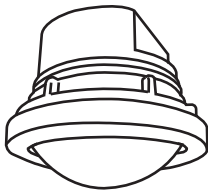
INSTALLATION INSTRUCTIONS



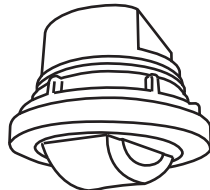
w/Lens A/B/C



w/Lens D



w/Lens F



w/Lens G/L

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



INTRODUCTION

The MRA-514 series of IR-TEC's TRANS family is a DALI-2 certified Occupancy and Light sensor for Digital Addressable Lighting Interface (DALI) control. This DALI-2 Input Device employs a digital Passive Infrared (PIR) Sensor and a digital Ambient Light Sensor (ALS) to dynamically report local occupancy status and ambient luminance level for DALI Application Controller to execute smart lighting control.

Like all sensors with T5 housing in the family, the MRA-514 series can be recess or surface mounted on the ceiling with respective mounting bracket. If necessary, the sensor can also be directly integrated or attached with exclusive mounting bracket to an OEM luminaire. Interchangeable lens options allow the sensor to be mounted up to 15 meters high with distinctive detection coverage. Innovative modular design provides second-to-none application and installation flexibility.

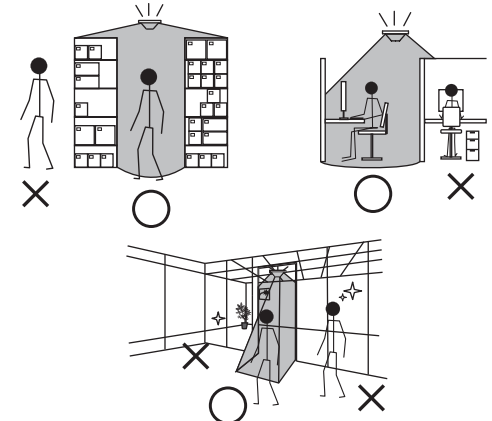
The MRA-514 multi-sensor not only conform all electrical safety, EMC emission and immunity requirements, but also fully complies with IEC 62386 Parts 101, 103, 303, and 304 DALI standards.

⚠ WARNING & CAUTION

- **Do NOT touch the square window of infrared sensor under the lens assembly.**
- **Do Not Install To and/or Cover a Junction Box Having Class 1, 3 or Power and Lighting Circuits.**
- **Class 2 Device Wiring Only – Do Not Reclassify and Install as Class 1, 3 or Power and Lighting Wiring.**
- **Use AWG 16-20 solid conductor wires Strip length 8-9 mm / 0.31-0.35 in.**

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.



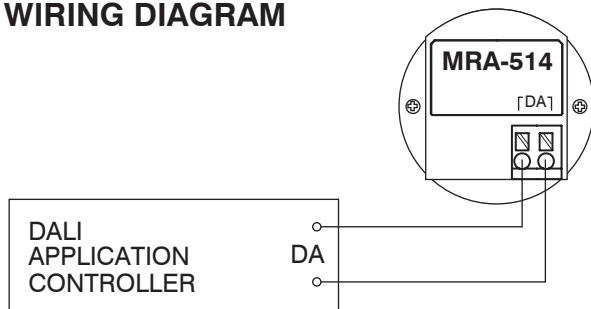
MOUNTING OPTIONS

The sensor can be mounted on the ceiling, or integrated with a lighting fixture in various formats via specific mounting bracket. Please refer to the mounting instruction sheet separately attached for more details.

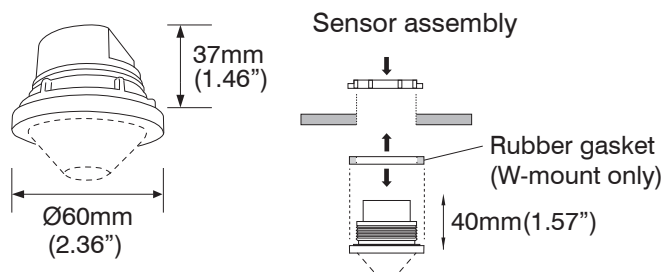
LENS OPTIONS

Different lenses can be applied to provide specific coverage at different mounting heights. Please refer to the lens datasheet attached for more details.

WIRING DIAGRAM

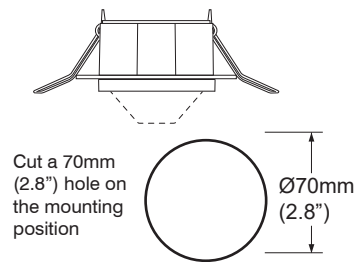


DIMENSIONS

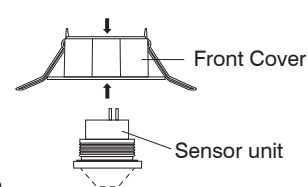


Note: For IP-66 fixture integration, ensure the rubber gasket is placed in between the fixture enclosure and sensor unit.

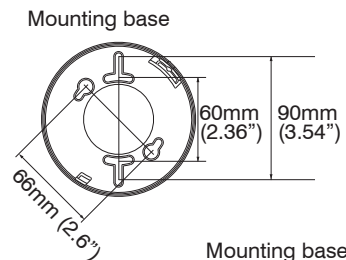
Ceiling Recess



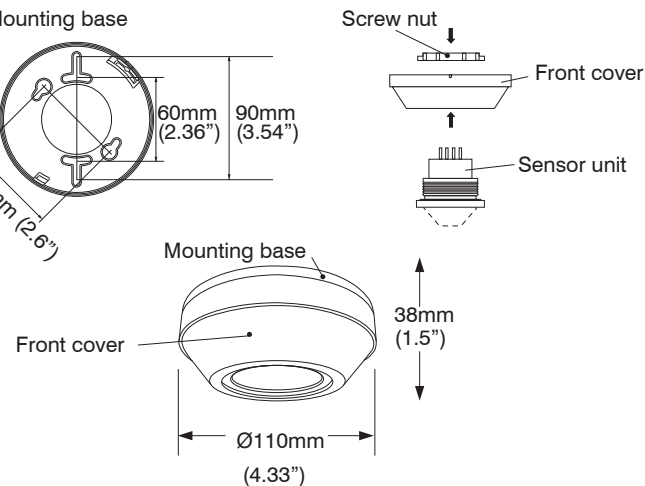
R-mount with RMB-500



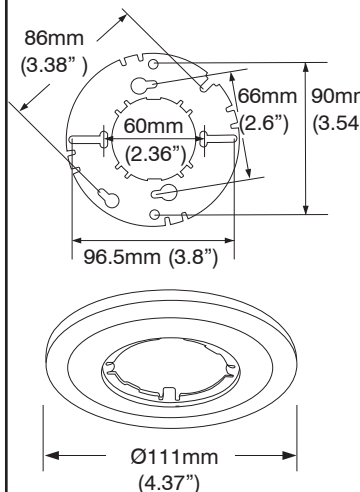
Ceiling Surface



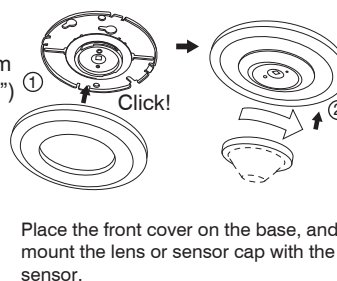
S-mount with SMB-500



Junction Box



C-mount with CMB-500



SPECIFICATIONS

Device Type	DALI-2 input device
GTIN	4711498310019
Power supply	DALI bus power
Power consumption	10 mA max
Control output	Addressable/slave DALI
Movement sensor	Digital passive infrared (PIR)
Luminance sensor	Digital ALS
Light level range	2-1000 lux @ mounting position
Detectable speed	0.3~3 m/sec. (1~10 ft./sec.)
Mounting height	2.4~15m, subject to the lens applied
Detection range	Subject to the lens and mounting height
DALI standards	IEC 62386 Parts 101, 103, 303, 304
Op. humidity	Max. 95% RH
Op. temperature	-40°C ~70°C (-40°F~158°F)
Dimensions	60 Ø x 37mm H (sensor head only, no lens)

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.