

## MRA-514 series

### DALI-2 Occupancy & Light Sensor



## OVERVIEW

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.



## FEATURES

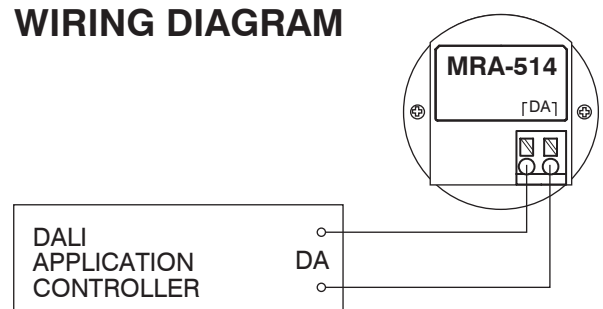
- Digital pyroelectric infrared and ambient light sensor
- Fully comply with IEC 62386 Parts 101, 103, 303, 304
- Low energy consumption over DALI bus power supply
- Multiple lens options offer second-to-none applications
- Ceiling recess, junction box or surface mount installation
- Directly integrated or externally attached with luminaire

## APPLICATION

### ☒ DALI Lighting Control

The MRA-514 series DALI-2 Occupancy and Light Sensor can be used to report local occupancy status and ambient light level of corridor, private office, guestroom, function room, washroom, storage room, conference/meeting room, kitchen/dining room, toilet/washroom, warehouse...etc.

## WIRING DIAGRAM



## MRA-514 series

### DALI-2 Occupancy & Light Sensor

#### MOUNTING OPTIONS

The MRA-514Sx series can be recess or surface mounted on the ceiling, mounted into a junction box or attached to a luminaire. Multiple mounting options are available 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. More details of mounting options are available from [www.irtec.com](http://www.irtec.com)

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
R	Ceiling Recess	RMB-500

#### LENS OPTIONS

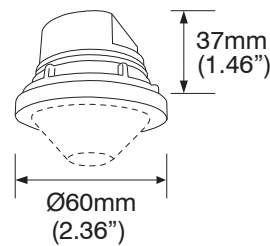
Following lens options are available for the MRA-514 series to provide distinctive coverage at different mounting heights (H). When order the sensor with specific lens code (MRA-514SxX), the lens will be shipped with the sensor. More details of mounting options are available from [www.irtec.com](http://www.irtec.com)

	Lens	Shape	Mounting Height	Coverage
A	Standard	Cone	8~15 ft.	2X height
B	Extra wide	Cone	8~10 ft.	2.4~3.0m
C	High bay	Cone	15~30 ft.	4.5~9.0m
D	Standard	Round	8~20 ft.	2.4~6.0m
F	Extra wide	Dome	8~20 ft.	2.4~6.0m
G	Aisle way	Arch	8~40 ft.	2.4~12.0m
H	High bay	Dome	30~50 ft.	9.0~15.0m
L	Long aisle	Arch	8~10 ft.	2.4~3.0 m

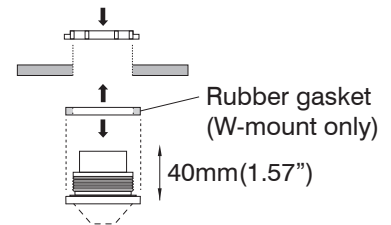
#### SPECIFICATIONS

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)

#### DIMENSIONS

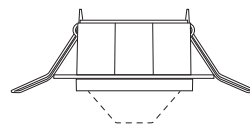


##### Sensor assembly

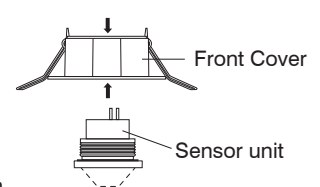


**Note:** For IP-66 fixture integration, ensure the rubber gasket is placed in between the fixture enclosure and sensor unit.

##### Ceiling Recess

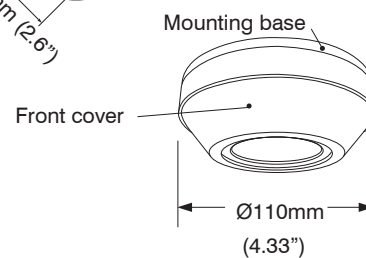
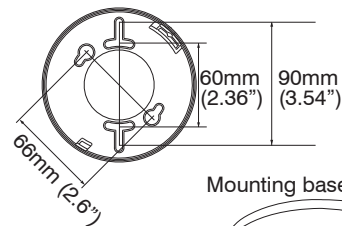


##### R-mount with RMB-500

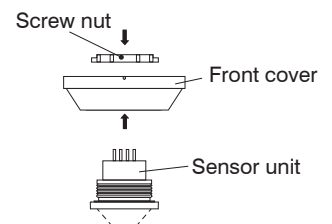


##### Ceiling Surface

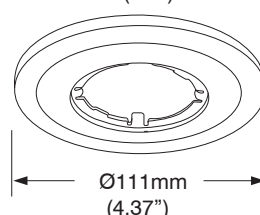
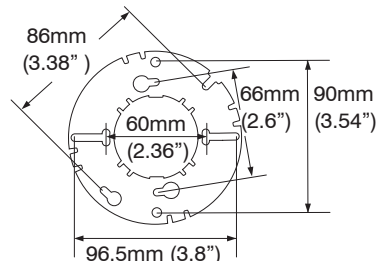
###### Mounting base



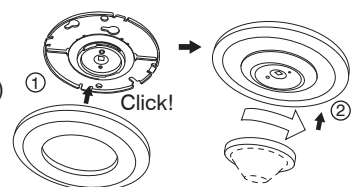
##### S-mount with SMB-500



##### Junction Box



##### C-mount with CMB-500



Place the front cover on the base, and mount the lens or sensor cap with the sensor.