MRD-200SP

SmartDALI Occupancy Sensor

OVERVIEW

The MRD-200SP is a passive infrared (PIR) occupancy sensor designed to provide occupancy sensing controls via DALI Broadcast commands to DALI based luminaires. This two-way remote programmable occupancy sensor can be easily set to provide four different control schemes with fully programmable StepDIM or SmartDIM control to the integrated luminaire. SmartDIM is a state-of-the-art automatic dimming control technology developed by IR-TEC, which enables the sensor to maintain the overall lighting level within the preset range through a smooth, flawless continuous dimming control to the controlled lights.

The sensor is capable of commanding the controlled DALI driver to the high level as programmed when it detects the presence of an occupant or vehicle, and automatically dim to the low level or shut off the light after the area is vacant for a period of time. An exclusive 2-way handheld remote programmer (SRP-280) allows you to configure the sensor to control the light in specific scheme and parameters, or download the existing settings of the installed sensor from the floor.

This batten mount sensor can be externally assembled with an OEM luminaire through a 1/2" hole. A low profile flat lens provides excellent low-bay occupancy sensing capability within its coverage of 2X mounting height. With MRD-200SP, you can easily deliver smart luminaires featuring state-of-the-art energy efficient smart controls.

FEATURES

- Omni-directional quad element infrared sensor
- Digital ALS data control for daylight harvesting
- Operation with AC line voltage or DALI bus power
- Multi-level high/low StepDIM or SmartDIM control
- 2-way IR remote programmable control settings
- 4 different occupancy sensing control schemes
- Provides up to 100mA of DALI bus power supply
- DALI broadcast command for multi-driver control
- Ideal for linear, batten mount or IP-65 luminaires

APPLICATION

☑ DALI Lighting Control

The MRD-200SP can be externally mounted with variety types of commercial luminaires through 1/2" knockout hole and provide occupancy sensing control to the controlled lighting. If necessary, one sensor can control multiple DALI drivers in the same scheme and parameters, while one DALI driver can only be controlled by a single sensor.

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CONTROL MODES

The sensor can be easily configured to control the light in one of the following schemes via remote programmer. For details of specific control mode, please visit www.irte.com or contact an IR-TEC team member directly.

Mode	Day[1]	Night[2]	Remarks
ON/OFF	Vac: OFF Occ: ON/OFF*	Vac: OFF Occ: ON	For non-dimmable lighting *ALS enabled
OSO	Vac: LD Occ: SD/HD	Vac: LD Occ: SD/HD	LD: Low Dim, HD: High Dim SD: SmartDIM
OSLA	Vac: OFF Occ: SD/OFF	Vac: LD Occ: SD/HD	
OSLATO	Vac: OFF Occ: SD/OFF	Vac: LD*-OFF Occ: SD/HD	*Low Dim during Time Off delay
OFF	Vac: OFF Occ: OFF	Vac: OFF Occ: OFF	Light stays off

ON/OFF : ON-OFF Switching
OSO : Occupancy Sensing Only
OSLA : Occupancy Sensing at Low Ambient
OSLATO : Occupancy Sensing at Low Ambient with Time-Off
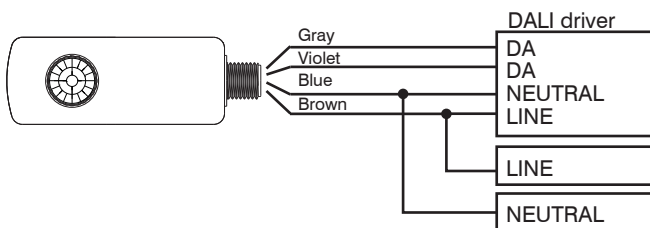OFF : Light OFF all the time

Vac : Vacant   **Occ** : Occupied
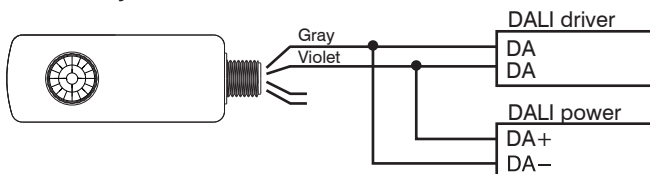
[1] While ambient light level is higher than the threshold.
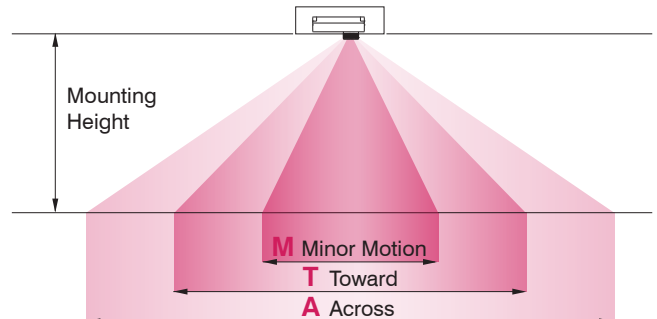[2] While ambient light level is lower than the threshold.

DETECTION PATTERN

Mounting Height		2.4 m (8 ft)	3.0 m (10 ft)	3.6 m (12 ft)	6.0 m (20 ft)
Coverage Diameter	M	1.0 m (3 ft)	2.0 m (7 ft)	3.0 m (10 ft)	--
	T	3.0 m (10 ft)	4.0 m (13 ft)	5.0 m (16 ft)	6.0 m (20 ft)
	A	5.0 m (16 ft)	6.0 m (20 ft)	7.0 m (23 ft)	9.0 m (30 ft)

DIMENSIONS

Unit: mm

WIRING DIAGRAM

Powered by line voltage

Powered by DALI bus
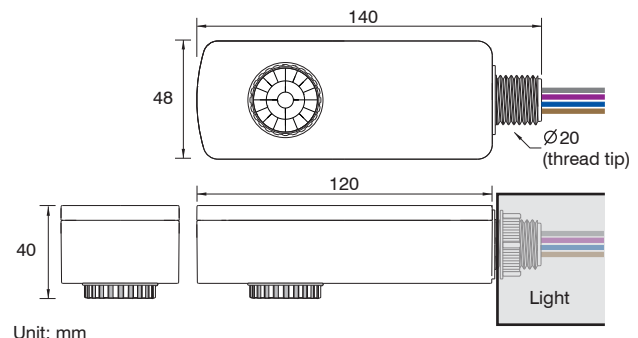
SPECIFICATIONS

Power supply	230-240VAC or DALI bus power
Power consumption	<0.5W @230VAC, <15mA with DALI bus
Infrared sensor	Omni-directional quad element pyroelectric
Photo sensor	Digital ambient light sensor
DALI power output	100 mA max.
Control protocol	DALI Broadcast
Detectable speed	0.3 ~ 3 m/sec. (1~10 ft/sec.)
Mounting height	2.4~6m (8~20 ft)
Detection range	Subject to the mounting height
Op. humidity	Max. 95% RH, non-condensated
Op. temperature	-40°C~70°C(-40°F~158°F)
Dimensions	140x48x40mm (5.51"x1.89"x1.50")