

WIRELESS LUMINAIRE EXTENSION MODULE

The Lighting Control Module (LEX-M) provides intelligent control functions to light fixtures through a Zhaga Book 18 compliant 4 pin DALI interface.

It provides a proven, reliable, real time wireless control network between fixtures allowing intelligent dimming algorithms to optimise power savings or task lighting.

Because of the intelligence within the unit, it can operate independently of a Central Management System (CMS), facilitating autonomous lighting that "looks after itself" without needing constant communication with the CMS. However, it can report to, and be configured by such a system, thereby providing the flexibility of IOT/Cloud without the cost and vulnerability of maintaining communications with the CMS.

The device provides a current limited DALI bus output, but can optionally support 0-10V or PWM dimming and can monitor fixture temperature or remote sensor voltage through an analogue input.

Light sensing and internal temperature are also options available.

Control:

Proximity Sense:	Radio Beacon, PIR or Microwave
Daylight Sense:	Via internal Sensor
Output:	DALI 2.0 (bi directional) 0-10V (sink or source)
Programming:	Over-The-Air Firmware upgrades

Physical:

Input:	12-24V, 0.3W "System Ready" Surge protection provided by SR-Driver.
Output:	Digital 1-wire interface for sensor expansion.
EMC Emission:	EN55032 (CISPR32) Class B, EN61000-3-2,-3
Design Life	> 20 Years
Connector:	Push & Twist Zhaga Book 18 SR

RF Module:

RF Band:	ISM 2.405 - 2.48GHz Band
RF Standard:	IEEE 802.15.4
RF Power Level:	0dBm max.
Effective Range:	1 km between nodes

Environmental:

Operating Temp:	-30°C to +85°C
Rating:	IP67

Control:

The LEX-M adds intelligent wireless control to standard LED drivers capable of "System Ready" interface, using DALI or 0-10V dimming. It interacts with other LEX-M's in real time over a self-establishing RF network, providing optimal lighting while minimising wasted light output in off-peak times, or times when there is little or no activity.

Supports reporting of local environmental conditions or activity.

Simple "Plug and Play" operation eliminates the need for laborious commissioning.

Over-the-air software upgrades.

Optional Sensing of:

- Interacts with motion sensors
- Supports Environmental Sensing

Applications:

Smart City Lighting, Tunnel, Car Park, Industrial Lighting.

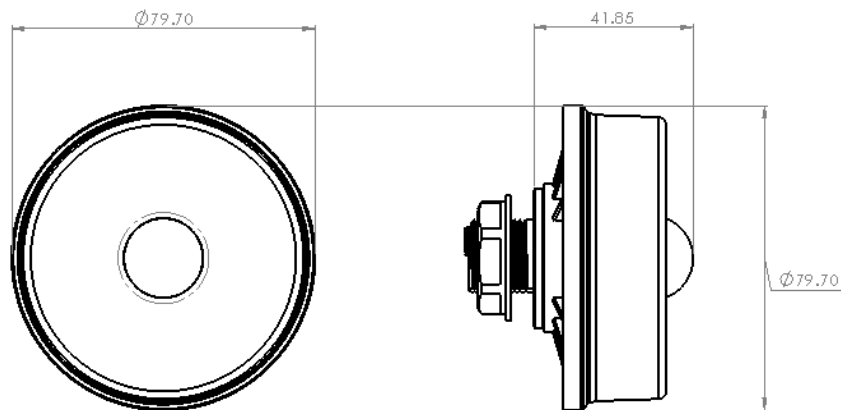
Mechanical:

Body material: Polycarbonate

Dimensions: 146mm x 67mm x 40mm

Weight: Approx 0.25kg

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Features

Plug and Play: Self contained, self configuring network.

Smart City: Provides data transport for additional sensors providing feedback on air quality, traffic flows or remote metering.

Simplifies Fixture Wiring: Reduced complexity of fixture wiring by eliminating duplicate protection devices and switching relays.

Enhanced Safety: 24V DC 60mA Operation. No dangerous voltages.

Daylight Harvesting: Detects ambient light conditions whether mounted above or below the fixture.

Area Tuning: Individual (or groups) of modules can maintain different target light levels to suit zoning requirements for specific areas.

Improved Reliability: System Ready architecture eliminates the surge protection difficulties of previous controller configurations.

Reduced Cost and Complexity: System Ready architecture eliminates the need for duplicate power supplies and protection devices.

Addressable: Luminaires are uniquely addressable for unique control strategies (or sensor monitoring) independent of electrical wiring.

Continuous Dimming: Light level from 0-100%. Ramp rates fully programmable.

Customisable: May be customised to suit specific applications.

Extreme Operating Life: MTBF > 2 million hrs at 25°C.

Future Proof: Meets or exceeds DesignLights Consortium Intelligent Controls requirements 2016