



| Order Code | DALI 2.0 GW |
|------------|-------------|
|------------|-------------|

#### Overview

An embedded Ethernet/DALI controller for the RAPIX Lighting Control System that supports seamless joining of all individual DALI lines in a building.

Each Zone Controller can connect to four physical DALI Lines and communicate over an Ethernet network to lines on other Zone Controllers.

The controller software allows DALI Devices and DALI Groups across any DALI Line to be linked together to form RAPIX 'Zones' and 'Scenes' to suit the application.

## **Features**

12M wide DIN rail mounted embedded controller for the RAPIX Lighting Control System.

Physical connection to four DALI lines.

Two Ethernet ports with in-built switch for daisy chain connections.

LCD screen and control buttons with menu driven control interface for easy programming and commissioning.

Configured using RAPIX Integrator software tool (free download).

Line joining between DALI lines; on a single controller and / or across controllers.

Zone creation – Zones being collections of DALI lines and / or DALI Groups and / or DALI Short Addresses.

Zone joining – link Zones to form larger zones.

Zone rules – configurable logic based on states of Zones, DALI Groups and DALI Short Addresses.

Scene control across all connected Zone Controllers and DALI lines.

Scheduled operations.

Seamless expansion of RAPIX sensors, switches, input devices and eHub from single DALI lines to multiple lines.

Multiple interfaces: API available for developers to monitor and control a DALI system over an ethernet connection; REST API, and Modbus/TCP client.

Allows C# Programming / Scripting language for customised operation.

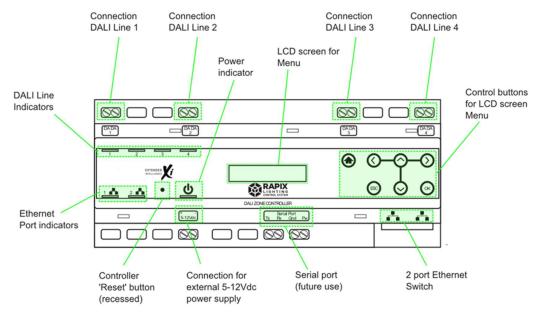




Typical Residential, Commercial & Industrial buildings, Education Facilities, Health care

**Applications** facilities, Hotels.

### **Connections and Interface**

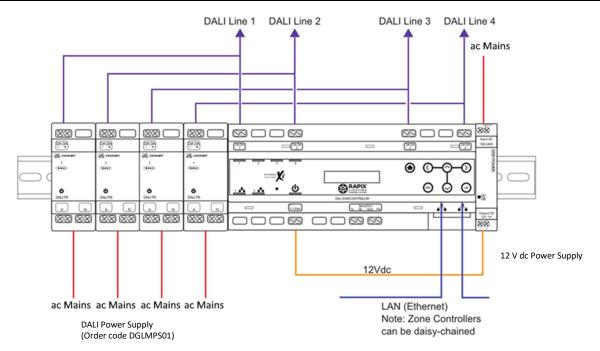


## The Zone Controller connects to:

- Up to four separate DALI Lines. Each DALI line can have up to 64 DALI devices (each with a DALI Short Address).
- An external SELV 5 12 V dc power supply to power the zone controller.
- Ethernet connections to allow communication to and from other Zone Controllers, a PC running RAPIX Integrator software, or other RAPIX compatible devices.
- RS-232 connection accessible from C# logic code.







## **Ethernet Network Requirements**

| Parameter   | Requirement   |
|---|---|
| Communication between Zone Controllers  | TCP/IP Port 36690 must be unblocked on all Ethernet segments  |
| RAPIX Integrator Software Control of Zone<br>Controller Ethernet Settings   | Broadcast UDP packets on port 22266 must be routed from the computer's local network to each Ethernet segment |
| RAPIX Integrator Software connection to Zone<br>Controllers (for commissioning, project update,<br>control or monitoring) | TCP/IP port 22267 must be unblocked from the computer's local network to each Ethernet segment                |

## **Specifications**

| Parameter                   | Specification   |
|-----------------------------|---|
| DALI line capacity          | Up to 4 separate DALI lines can be connected, with up to 64 devices on each line  |
| DALI line operating voltage | 18 V dc (nominal), supplied by external DALI power supply   |
| DALI line current draw      | 2 mA (nominal) per DALI line  |
| Power source                | External power supply:<br>5 – 12 V dc, 200 mA @ 12 V dc   |
| Ethernet                    | 10 / 100 Base-T<br>On-board 2 port Ethernet switch<br>Auto MDI-X  |
| Mounting                    | DIN rail (35 mm) mounted  |
| IP Addressing               | Zone Controller must be assigned a Static IP Addresses during the commissioning process to ensure system reliability.  Note: Zone Controllers support DHCP to assist with the initial configuration phase of a RAPIX project, but Static IP addresses should be assigned to all controllers during commissioning. |
| Integration / API           | Native secured API, Native trusted API, REST API, Modbus/TCP Client.  |



## **Zone Controller**

# Intelligent DALI / Ethernet Controller DATA SHEET

| Ethernet connectors             | 2 x RJ45 sockets   |
|---------------------------------|--|
| DALI connectors (per DALI line) | 2 x screw down terminal block, suitable for 2 x 2.5 mm <sup>2</sup> conductors |
| LED Indicators                  | Power – Green ON   |
|                                 | Ethernet – Green ON when connected, FLASHES with traffic                       |
|                                 | DALI – Green ON when connected, FLASHES with traffic                           |
| LCD Display                     | Backlit, monochrome, 2 rows x 20 character                                     |
| Serial Port connection          | 4-wire, Tx, Rx, Ground and Power   |
| Operating System                | Windows Embedded Compact 7   |
| Ambient operating temperature   | 0 to 50° C   |
| Ambient storage temperature     | -10 to 70° C   |
| Humidity                        | 0% to 95% RH non-condensing  |
| Ingress protection              | IP20   |
| Materials                       | Enclosure – Flame retardant Polycarbonate, UL 94V-0                            |
| Weight                          | 400 g (excluding power supply)   |



## **Standards & Compliance**

### **EMC and Electrical Safety Frameworks and Standards**

EN 55015

EN 55022, AS/NZS CISPR 22

EN 55024

EN 61547

EN 61000-3-2

EN 61000-3-3

EN 61347-1, AS/NZS 61347.1

EN 61347-2-11, AS/NZS 61347.2.11

### **DALI Standards**

IEC 62386-101

IEC 62386-102

### **EU Directives**

2014/35/EU Low Voltage

2014/30/EU Electromagnetic Compatibility (EMC)

2015/863 Restriction of Hazardous Substances (RoHS) in Electrical and Electronic Equipment

**IP20** 

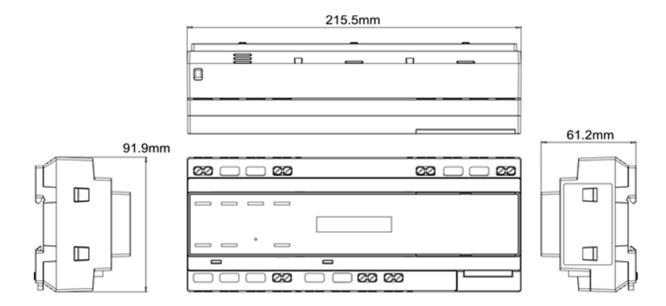








## **Dimensions**





## **Zone Controller**

Intelligent DALI / Ethernet Controller
DATA SHEET

**Contact Information** 

Legrand Integrated Solutions

Web www.legrandintegratedsolutions.com

Gentsebaan 66 / 204 9100 Sint-Niklaas

Belgium

All Enquiries +32 3 773 31 06 contact.lis@legrand.com

This product includes a **TWO-YEAR WARRANTY** against manufacturing defects.

13 September 2022