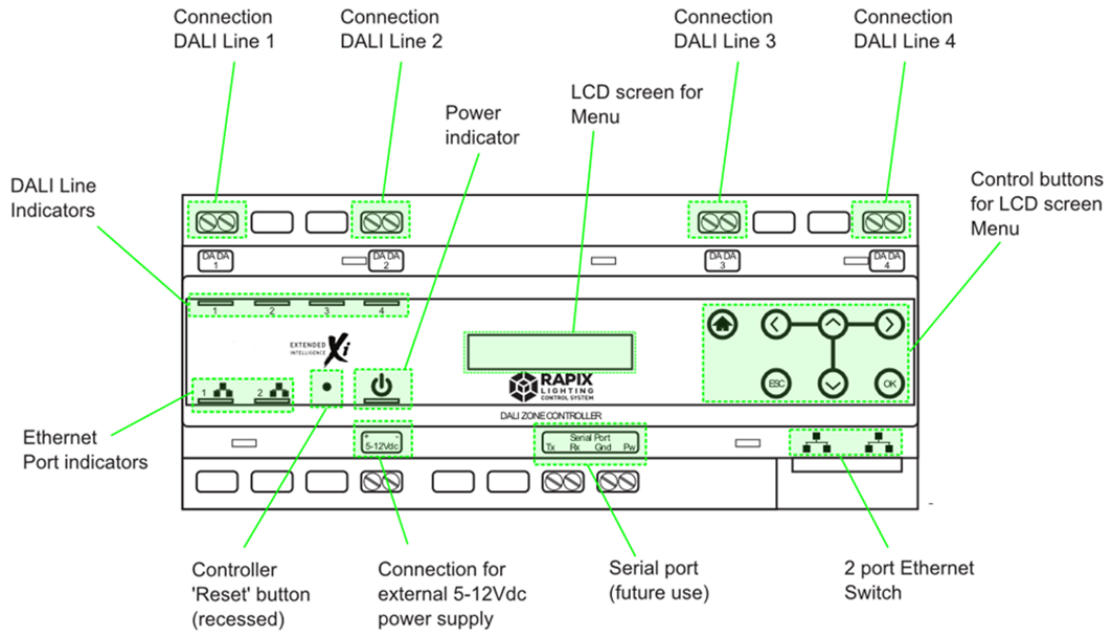|		
Order Codes	4 DALI Lines:	DGOZ-ZONEC-4DA
	2 DALI Lines:	DGOZ-ZONEC-2DA

Overview

Embedded Ethernet/DALI-2 Application 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 two or four physical DALI Lines (depending on model), and communicates over an Ethernet network 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 DALI-2 Application Controller for the RAPIX Lighting Control System.
- Physical connection to two or four DALI lines (depending on model).
- Two Ethernet ports with in-built ethernet switch for daisy chain connections.
- LCD screen and control buttons with menu driven control interface for easy programming and initial 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 and DALI-2 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, Modbus/TCP client, MQTT.
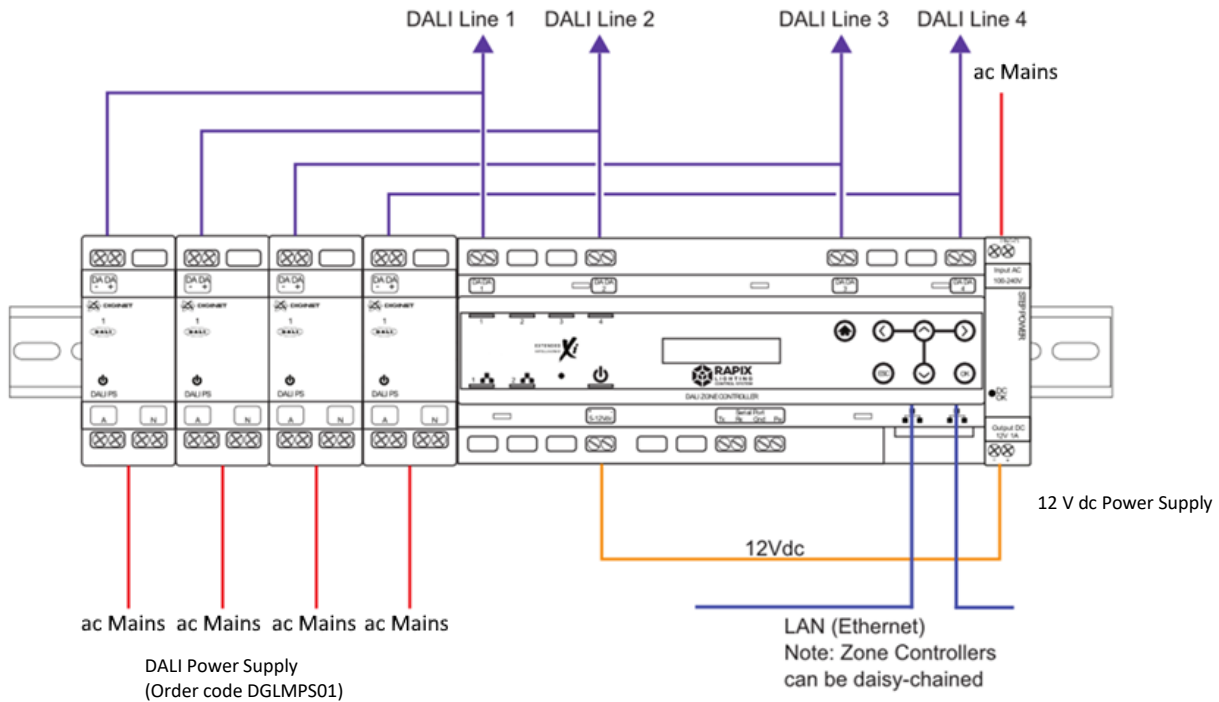- Allows C# Programming / Scripting language for customised operation.

Typical Applications

Commercial & Industrial buildings, Education Facilities, Health care facilities, Hotels.

Connections and Interface (4 DALI Lines version)

The Zone Controller connects to:

- Up to four separate DALI Lines. Each DALI line can have up to 64 DALI or DALI-2 Control Gear devices (each with a DALI Control Gear Short Address), and up to 64 DALI-2 Control Devices (input devices).
- 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 RAPIX Ethernet Interface, a PC running RAPIX Integrator software, or other devices using API, Modbus, MQTT or other clients.
- 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 connection to Zone Controllers (for commissioning, project update, control or monitoring)	TCP/IP port 22267 must be unblocked from the computer's local network to each Ethernet segment

Specifications

Parameter	Specification
Power source	External power supply: 5 – 12 V dc, 200 mA @ 12 V dc
Compatibility	DALI and DALI-2
DALI line operating voltage	16 V dc (nominal), supplied by external DALI power supply
DALI line current draw	2 mA (nominal) per DALI line
DALI line capacity	Up to 2 or 4 separate DALI lines can be connected (depending on model) Each DALI line: up to 64 DALI or DALI-2 Control Gear devices, and up to 64 DALI-2 Control Devices (Input devices)
Mains tolerance	DALI input is mains voltage tolerant
DALI connection (per DALI line)	2 Tunnel screw down terminal block Each tunnel suitable for 2 x 2.5 mm^2 conductors
Ethernet	10 / 100 Base-T On-board 2 port Ethernet switch Auto MDI-X
Ethernet connectors	2 x RJ45 sockets
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. In development: BACnet and MQTT.
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	-20 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
Mounting	DIN rail (35 mm) mounted
Weight	400 g (excluding power supply)
Approvals	DALI2 CE UKCA RoHS COMPLIANT

DALI Line Expansion

Multiple Zone Controllers communicate with each other to create a consistent large network for all lines in a site.

Additional DALI lines can also be supported from a Zone Controller by connection of either 1 or 2 RAPIX Ethernet Interfaces, allowing 1 to 4 additional DALI lines to be supported from a single Zone Controller.

DALI-2 Control Devices (Input Devices) Supported

RAPIX Zone Controllers can operate with:

- RAPIX DALI-2 Input Devices (switches, sensors) with DALI-2 events or using their cooperating Application Controllers for better resilience; and also
- DALI-2 certified input devices from any manufacturer that transmit EVENT messages for instance types 1, 2, 3 or 4 – that is, any push button switch, absolute input, occupancy sensor or light level sensor.

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
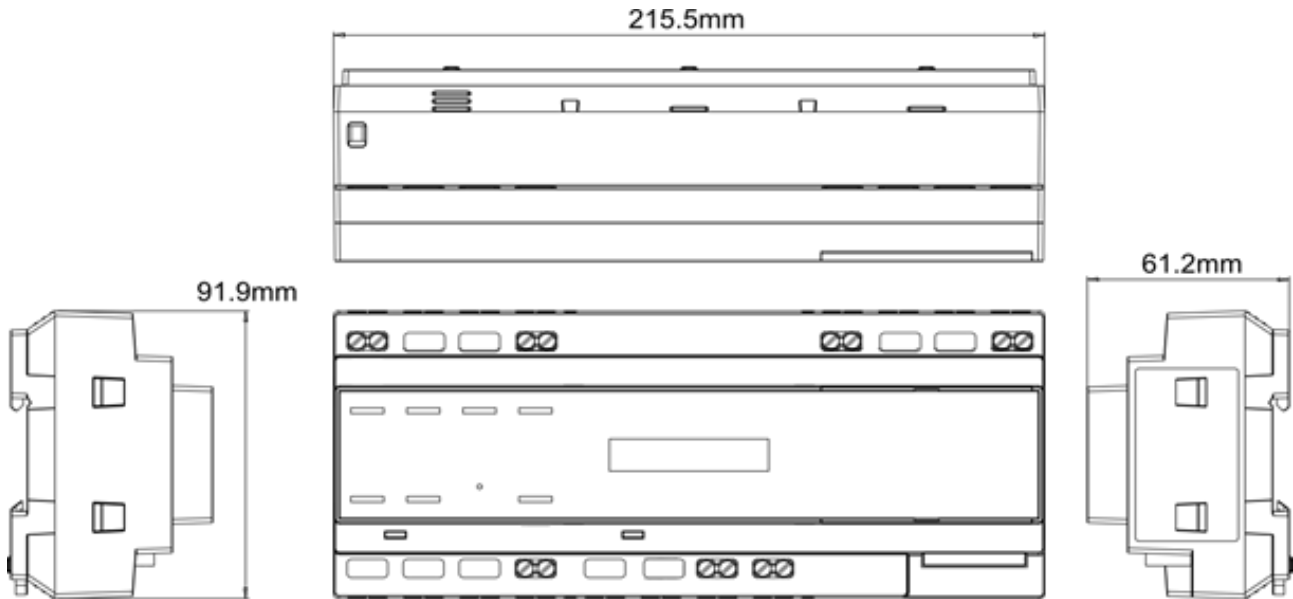EN 61347-1, AS/NZS 61347.1
EN 61347-2-11, AS/NZS 61347.2.11

DALI Standards and Compliance

IEC 62386-101 Ed 2
IEC 62386-103 Ed 1 (DALI-2, control devices)

EC Council Directives

2014/35/EU   Low Voltage
2014/30/EU   Electromagnetic Compatibility (EMC)
2015/863   Restriction of Hazardous Substances (RoHS) in Electrical and Electronic Equipment

Dimensions

Contact Information

Web	www.ozuno.com
All Enquiries	+61 8 8362 7584 sales@ozuno.com

Ozuno Trading Pty Ltd
ABN: 96 621 194 483

13-13-013-002-07 December 2024