EBR-LCM-DALIG64 & EBR-LCM-DALIG64-B

Pluggable DALI lighting control module

Overview

The EBR-LCM-DALIG64 and EBR-LCM-DALIG64-B are Rapid lighting control modules (LCMs) designed for controlling addressable DALI devices such as fluorescent or LED lighting ballasts. With 3 pluggable outputs the full range of 64 DALI addresses can be achieved. These ports share a relay providing a switched live output and a second relay for emergency test. The 4th output is a volt free contact to control external devices. All LCMs are available with CP's patented Energy Measurement technology as an option for measuring the energy consumption of all luminaires connected to the LCM.
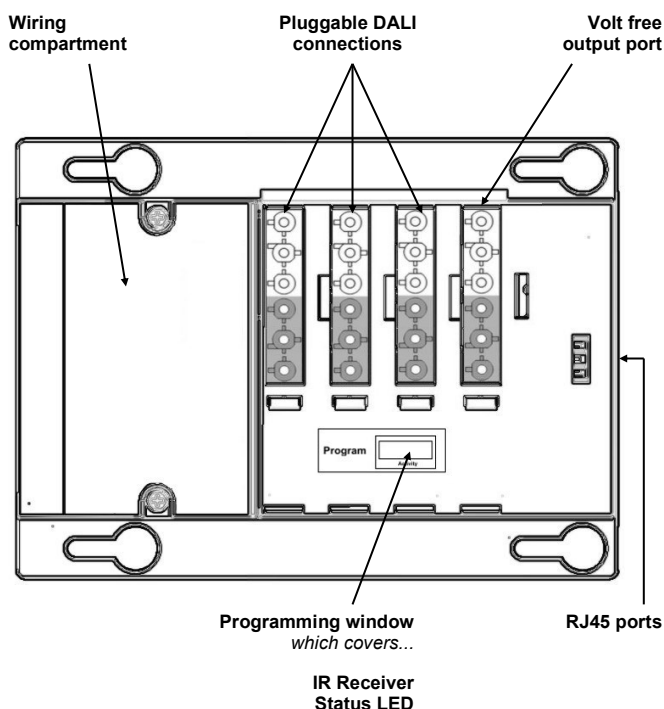
This LCM also has a total of 11 switch inputs. 6 in the wiring compartment with screw terminals and 7 via an RJ45 port.

Used in conjunction with our range of DALI presence detectors a single DALI cable can be run to digitally control all the lighting and power the sensors. This saves time and money on additional specialist cable. It is ideal for chilled beam, continuous run lighting, and core areas.

Please speak to our technical team for further information.

Features

Front features

Wiring compartment

Pluggable DALI connections

Volt free output port

Program Activity

Programming window *which covers...*

IR Receiver Status LED

RJ45 ports

Wiring compartment
Within the wiring compartment there are the following connections.

- Mains, including a Permanent Live used to feed the emergency test relay.
- Low Voltage connections
  - 6 x SELV inputs. (Inputs 1-5 & 11)
  - 2 x Rapid network CAN ports

Pluggable DALI connections
Three 6 pole GST style ports with DALI bus connection and shared 10A relays for a switched output and 6A emergency test.
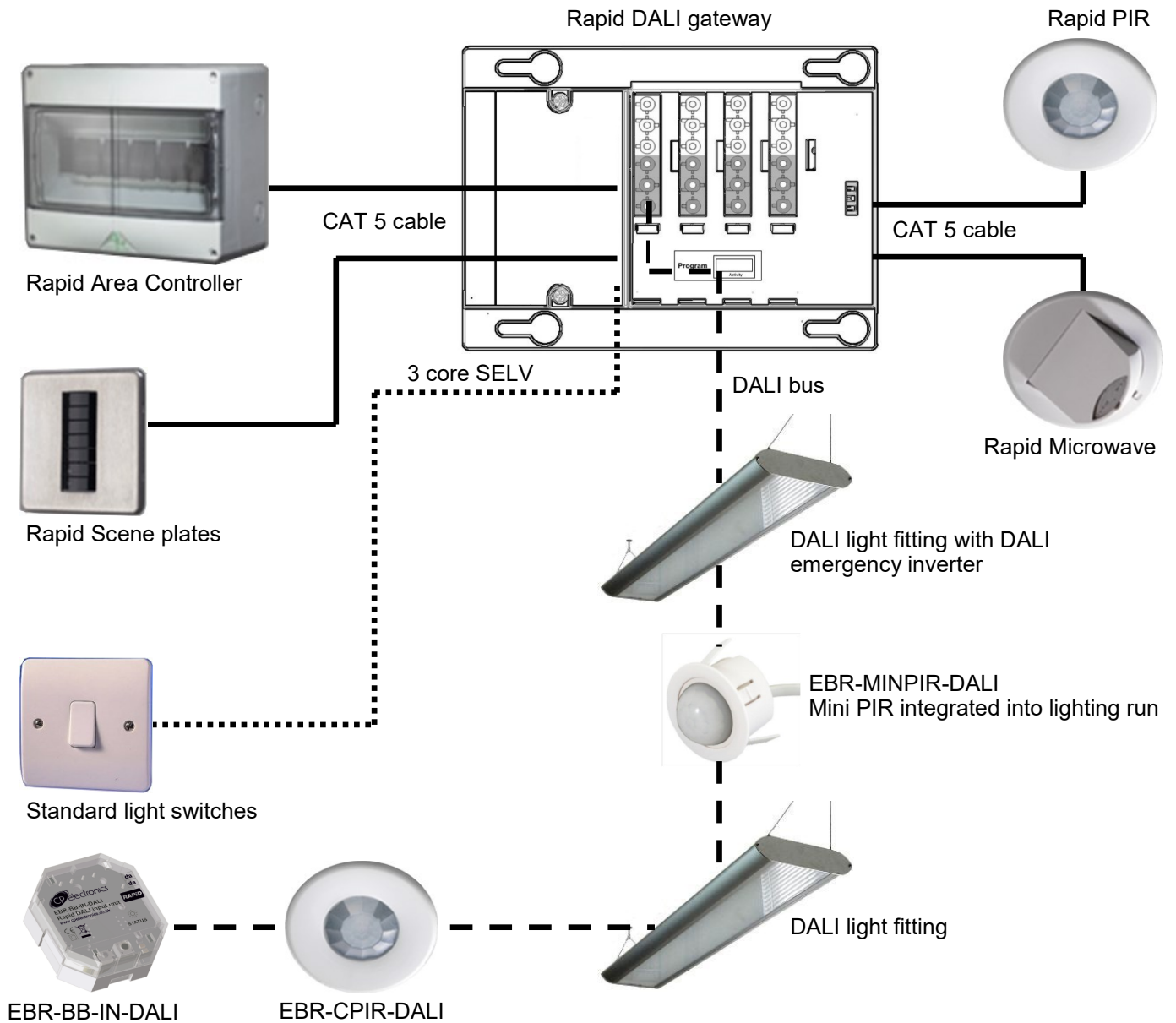
Volt free output port
6A 230VAC Voltage free contact. Used to switch external peripherals, such as HVAC and BMS systems.
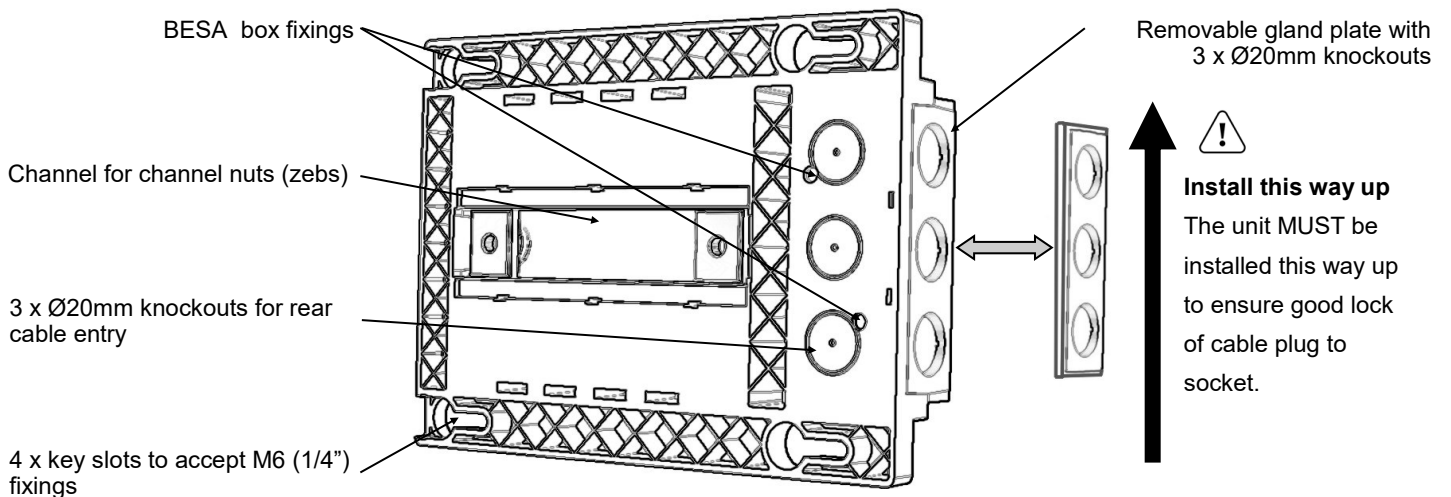
RJ45 ports
At the end of the unit there are 5 RJ45 ports.

- 2 x power and Rapid network CAN ports
- 2 x Rapid network CAN ports
- 1 x SELV switch input port (7 inputs plus common). Inputs 5-11.
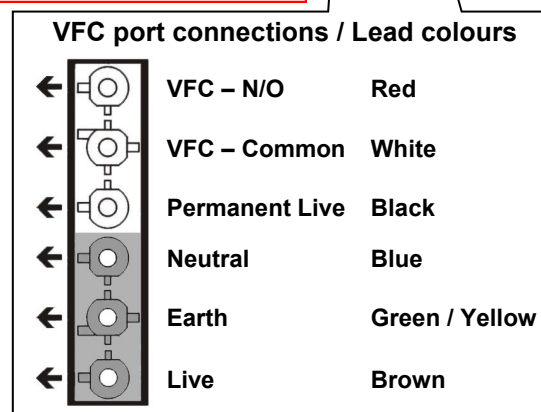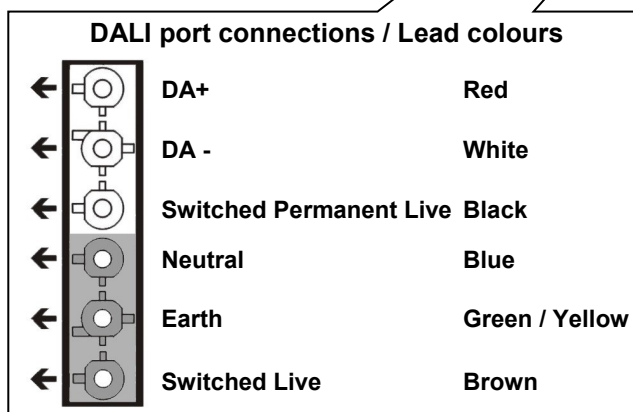
System wiring example

Rapid DALI gateway

Rapid PIR

Rapid Area Controller

CAT 5 cable

CAT 5 cable

Rapid Microwave

3 core SELV

DALI bus

Rapid Scene plates

DALI light fitting with DALI emergency inverter

EBR-MINPIR-DALI
Mini PIR integrated into lighting run

Standard light switches

DALI light fitting

EBR-BB-IN-DALI

EBR-CPIR-DALI

Installation

BESA box fixings

Removable gland plate with
3 x Ø20mm knockouts

Channel for channel nuts (zebs)

⚠

Install this way up
The unit MUST be installed this way up to ensure good lock of cable plug to socket.

3 x Ø20mm knockouts for rear cable entry

4 x key slots to accept M6 (1/4") fixings
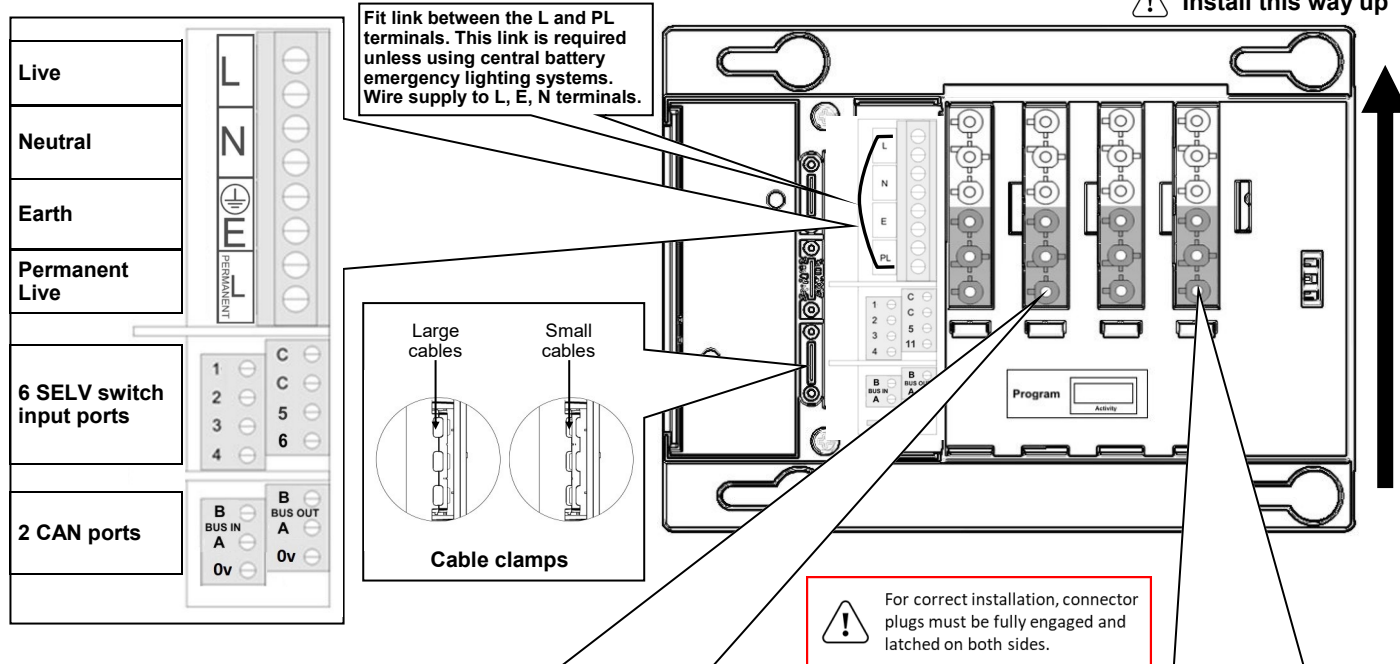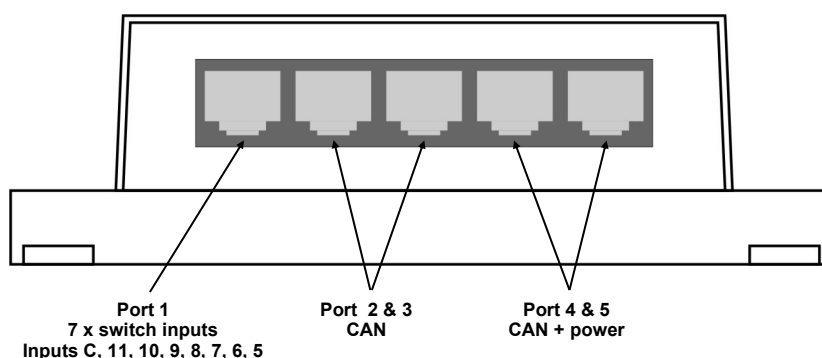
Warning. *This device works at mains voltage. Be sure to take care when working with electricity.*
- The box should be fixed on a smooth, flat surface or using drop rod fixings attached to channel nuts.
- Ensure that there is easy access to the wiring compartment and all connectors once the box is in-situ.

⚠ **Install this way up**

Live	
Neutral	L
Earth	N
Permanent Live	E
	PL

Fit link between the L and PL terminals. This link is required unless using central battery emergency lighting systems. Wire supply to L, E, N terminals.

6 SELV switch input ports

1	C
2	C
3	5
4	6

2 CAN ports

B BUS IN A 0v	B BUS OUT A 0v

Large cables   Small cables

Cable clamps

⚠ For correct installation, connector plugs must be fully engaged and latched on both sides.

Program   **Activity**

DALI port connections / Lead colours

←	DA+	Red
←	DA -	White
←	Switched Permanent Live	Black
←	Neutral	Blue
←	Earth	Green / Yellow
←	Switched Live	Brown

VFC port connections / Lead colours

←	VFC – N/O	Red
←	VFC – Common	White
←	Permanent Live	Black
←	Neutral	Blue
←	Earth	Green / Yellow
←	Live	Brown

RJ45 ports

Port 1
7 x switch inputs
Inputs C, 11, 10, 9, 8, 7, 6, 5

Port 2 & 3
CAN

Port 4 & 5
CAN + power

DALI bus loading

Devices (detectors / input units) and ballast combinations for 200mA supply.
This assumes that the sensor LEDs are all on, and the sensor is receiving IR communication.
- 4 devices and up to 64 ballasts
- 5 devices and up to 55 ballasts
- 6 devices and up to 44 ballasts
- 7 devices and up to 33 ballasts
- 8 devices and up to 22 ballasts
- 9 devices and up to 12 ballasts
- 10 devices and up to 2 ballasts

In most realistic scenarios, only one LED is on at a time and only one detector is receiving IR; guidance changes to.
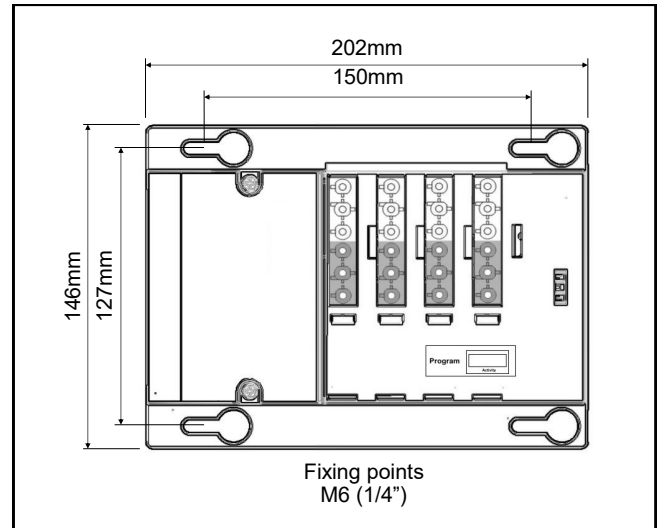- 10 devices up to 64 ballasts
- 11 devices up to 60 ballasts
- 12 devices up to 55 ballasts
- 13 devices up to 50 ballasts
- 14 devices up to 48 ballasts
- 15 devices up to 44 ballasts

Addressing limits of DG64
- 5 input units of 7 channels each
- 10 detectors

Technical data

Dimensions	See diagrams opposite
Weight	0.45kg
Supply Voltage	220-240VAC
Frequency	50Hz

Relay rating		
	Switched live	10A
	Switched permanent live	6A
	Volt free output (VFC)	6A

Terminal Capacity	Mains - 4mm^2 in wiring compartment
	Switched inputs and CAN - 2.5mm^2 in wiring compartment
Power consumption	On 1840mW, Off ????mW

DALI Voltage	16VDC via DALI
DALI Output Current	250mA (maximum)
DALI bus	Cannot be considered as SELV since DALI, ballasts only offer basic insulation, therefore all devices on the DALI bus must be wired as if carrying mains potential.
Temperature	-10ºC to 35ºC
Humidity	5 to 95% non-condensing
Material (casing)	Flame retardant ABS and PC/ABS

Classifications		
	Insulation	Class II
	Purpose	Operating control
	Construction	Independently mounted control for surface mounting
	Type of action	Type 1.B action micro disconnection
	Software class	Class A
	Pollution	Degree 2

Compliance	EMC-2014/30/EU
	LVD-2014/35/EU

For further compliance information visit www.cpelectronics.co.uk/compliance

202mm
150mm
146mm
127mm

Height - allow 150mm for total height of unit (including connectors and cable)

Fixing points
M6 (1/4")

Important
For lighting purposes only with suitable circuit protection. For fixed wiring only.

Part numbers

	Part number	Description
Control module	EBR-LCM-DALIG64	Pluggable DALI lighting control module grey connectors
	EBR-LCM-DALIG64-B	Pluggable DALI lighting control module blue connectors
	EBR-LCM-DALIG64-B-EG	Pluggable DALI lighting control module blue connectors + energy measurement
Accessories	UNLCDHS	Universal LCD programming handset

Due to our policy of continual product improvement CP Electronics reserves the right to alter the specification of this product without prior notice.

Ref: #WD584 Issue 13