legrand EBDMR-DALI 2 Connected Lighting Control System Instructions

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Contents

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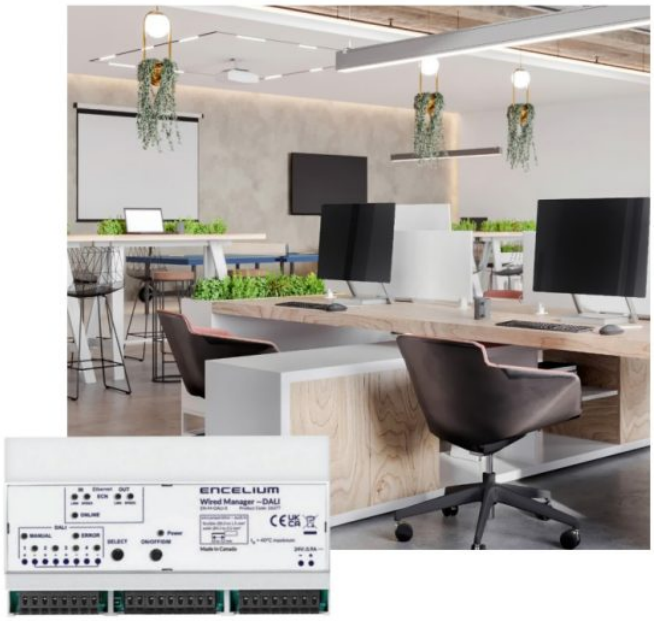


Overview

One benefit of the connected lighting control system is that the 2 wire DALI subnet may be wired with a free topology, this means that any wiring configuration may be used so long as everything is connected, and it does not exceed the maximum subnet length of 300 m or the maximum load capacity of each DALI subnet at 64 x inputs + 64 outputs per channel or 200 mA

We recommended design levels are 180 mA (10 % spare capacity) and 50 devices (typically a maximum of 12 control devices) per DALI subnet Each wired manager features 4 DALI channels and typically controls up to 64 inputs + 64 outputs per channel according to the current consumption of the devices used

Please refer to latest copy of application drawings that indicate which lighting circuits have been allocated to specific wired manager

Any deviation from these drawings may result in the wired manager's maximum loadings being exceeded and could lead to additional wiring and equipment

Please discuss any changes with us to ensure no overload For further information contact technical support on +44 (0) 0333 900 0671

1 : 300 m max. applies to a radial topology

Star field network is acceptable : yotal cable used must not exceed 300 m

Typical components : number of devices / mA load

Luminaires

DALI luminaire (single driver) 1 x device, 2 mA

DALI emergency module (additional) 1 x device, 2 mA

Please note some luminaires may contain more than one driver

Control devices

EBDMR-DALI 2… mid range PIR with photocell : 1 x device, 8 mA

EBDSPIR-DALI2… PIR with photocell : 1 x device, 8 mA

DP-SR-S4-WCU-DALI2… 4 button scene plate : 1 x device, 2 mA

DALI-COUPLER-PB-G… (switch interface) 1 x device, 5 mA

DP-SR-RM-DALI2… DALI switching actuator : 1 x device, 3mA

DALI cable type

Recommended field network cable : 1.5 mm twisted pair 600-1000 V

rated LSOH : flex or equivalent (mains rated cable)

Maximum length 300 m : singles must not be used. For further information or to discuss these options, contact technical support on +44 (0) 0333 900 0671

When DALI and mains cable share containment, DALI cable to be rated at same potential voltage as mains (although the DALI cable operates at ELV potential it is not classified as SELV). All wiring and connections are the responsibility of the customer

Ethernet cable

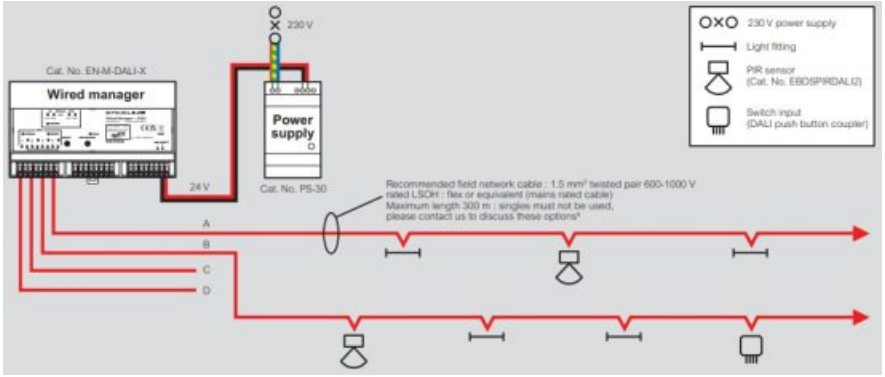
1 x RJ45 10/100 Mbps, Cat 5e up to 100 m (audio MDI/MDI-X crossover).

All equipment, wiring and connections are the responsibility of the customer

Typical radial topology

This illustration shows how each component is easily integrated into the Encelium Energy Management System DALI is a daisy chain communication topology that enables data in and out to the system components Each light fixture, sensor, and wall controller is daisy-chained back to the wired manager

Note : sensors and wall controllers are powered from the DALI bus



Wired manager – DALI is powered from 24 V DALI power supply (Cat. No. PS-30 sold separately)

Connect -/+24 V from DALI power supply to wired manager

Do not connect DALI lines to mains or any mains referred voltage

Wired manager and power supply will need to be installed in approriate DIN rail enclosure to ensure terminal connections are not accessible

For further information contact technical support on +44 (0) 0333 900 0671

Note : wired manager needs to be installed in dry, indoor locations ONLY

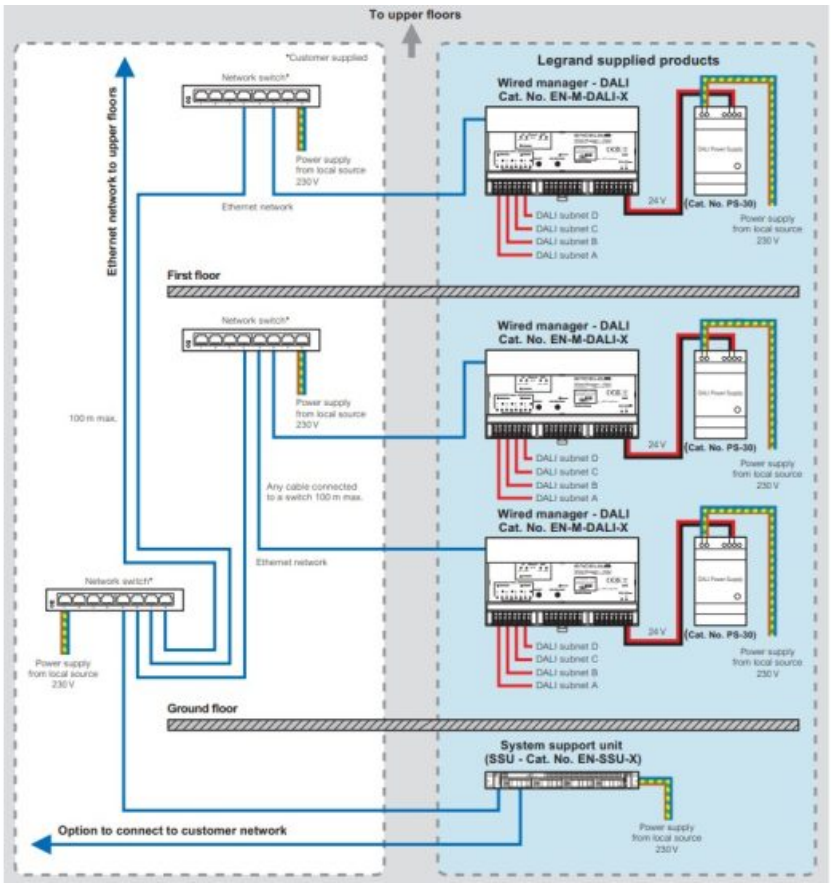
For more information on product specifications and design tools visit **www.legrand.co.uk/en/brands/cp-electronics** or contact your local Account Manager

Typical networked system

Each wired manager, typically controlling individual floors / groups of inputs and outputs and can be linked via an Ethernet network, when data analytics / Polaris software is required. Internet or LAN connection allows control software to be operated anywhere on the network Note: if the customer's Ethernet network is not dedicated to the connected lighting control system then static IP addresses will need to be issued to Technical Support prior to the commissioning of the control's installation

Static IP addresses will be required for each wired manager, each PC and 1 additional IP address should an SSU (system support unit Cat. No. EN-SSU-X) be installed

Please liaise with the Commissioning Department for confirmation of the number of static IP addresses required



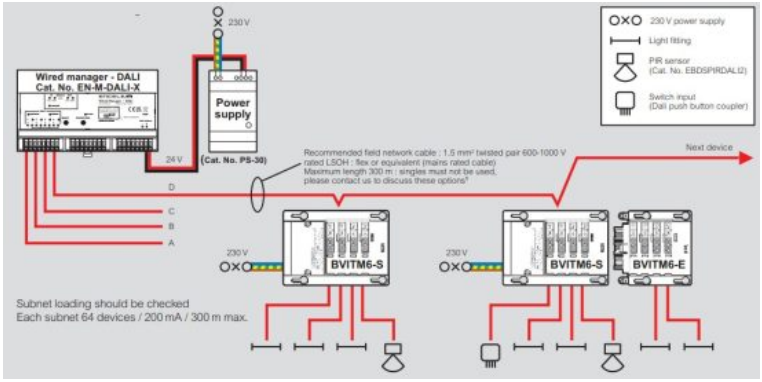
Customer to supply devices, i.e. Network switches for connection to Legrand products

Customer supplied : DALI cable : 2 core mains rated, 1 .5 mm radial Maximum length = 300 m

Customer supplied: Ethernet cable: 1 x RJ45 10/100 Mbps up to 100 m

Typical connected topology

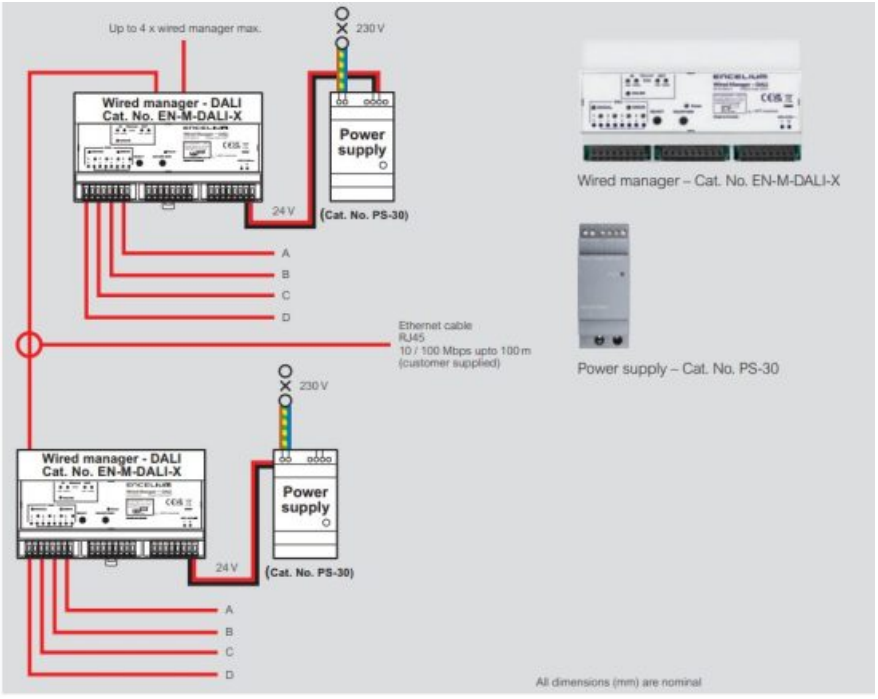
Connected solution using BVITM6



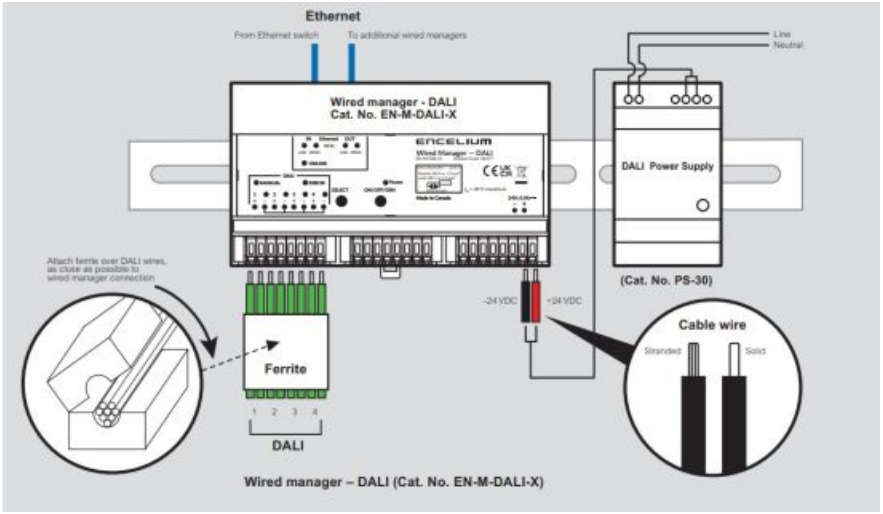
1 : For further information contact technical support on +44 (0) 0333 900 0671

Simple network

Where communication is required between wired managers, upto 4 x wired managers can be directly connected, this enables wired managers to communicate directly, alternatively network switches, by others, can be employed. Enabling more than 4 x wired managers to be employed for a given project or allow for system scaling



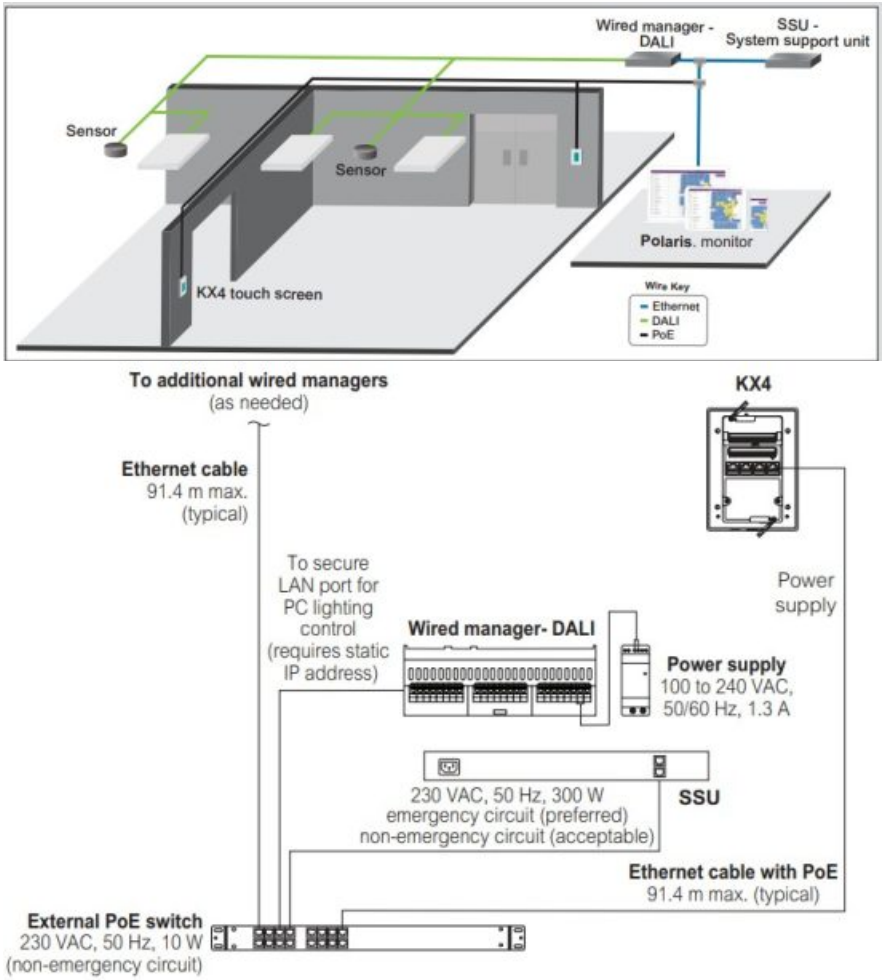
Mounting option



KX4 touch screen – LCD touch screen display panel Cat. No. RTI-KX4

Flush mounting LCD touch screen display that provides the ability to recall multiple lighting scenes for a given zone.

It’s ideal for large multi-purpose spaces where lighting requirements vary throughout the day, such as an auditorium or conference room



Note: A PoE switch can be used. This will eliminate the need for individual PoE injectors

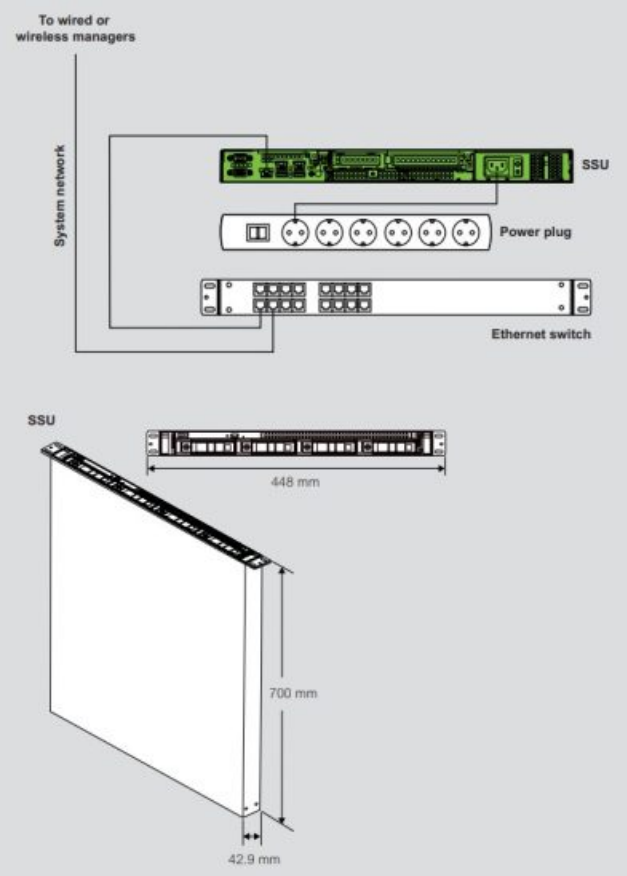
Note: The maximum run from the network switch to any end device is 91.4 m. The PoE injector does not extend the length limitation

System Support Unit – Cat. No. EN-SSU-X

The System Support Unit (SSU) is a key component in the connected lighting control system. It hosts the Polaris software giving Facility Managers and Building Operators the ability to monitor and maintain their system. It enables them to change or modify light settings, schedules and other system settings. A typical building or campus requires one SSU per site

Cat. No. EN-SSU-X

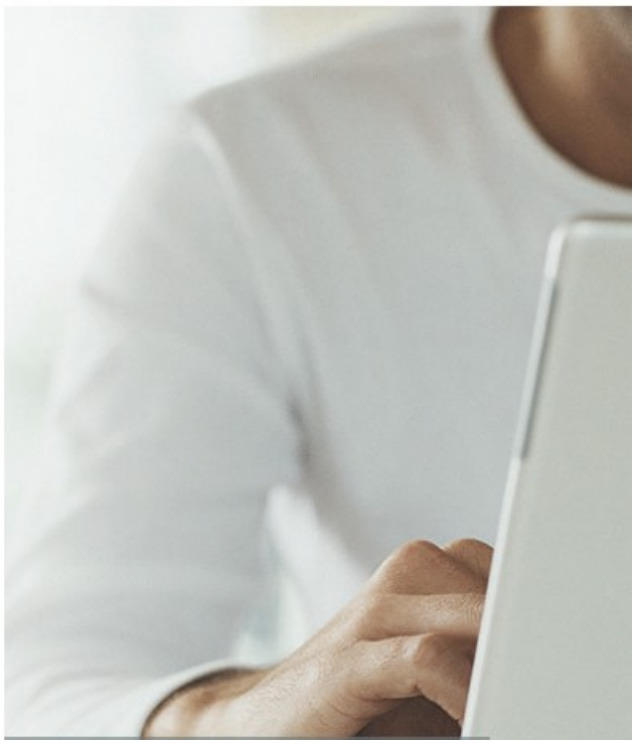
DALI wiring



Technical data

Dimensions	700 x 448 x 42.9 mm (H x W x D)
Weight	14.3 kg
Housing colour	Black
Housing material	Steel
Mounting options	Rack mount
	Wall mount
	4U wall mounted rack (optional and sold separately)

Contact details
United Kingdom
For further information contact the
CP Electronics office: Brent Crescent
London
NW10 7XR
Email: **info@cpelectronics.co.uk**
Quotations and Technical Support:
Tel: +44 (0) 333 900 0671



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Documents / Resources

	legrand EBDMR-DALI 2 Connected Lighting Control System [pdf] Instructions EBDMR-DALI 2, EBDMR-DALI 2 Connected Lighting Control System, Connected Lighting Control System, Lighting Control System, Control System

References

- **User Manual**