

Introduction to Whitecroft Connect

The Whitecroft Connect system brings wellbeing and intelligence into your space, offering efficiency and scalability for a wide variety of applications. It builds upon industry standards for easy installation and integration to provide a truly leading lighting control and management solution. The system comprises of a comprehensive range of lighting control equipment designed to provide optimum lighting conditions, controllability and flexibility for projects of any size. The system is easily reconfigurable minimising disruption to a change of space (e.g. Cat A to Cat B).

A two-wire communication DALI subnet connects control devices, luminaires, switch input units etc. This allows them to share occupancy and control information; this gives greatly enhanced detection performance and facilitates a host of user friendly control features:

- Occupancy control, daylight control, scene control and manual control
- Corridor linking, time control, individual luminaire control, grouped luminaire control and building wide control capabilities
- Control of none Dali luminaires available via additional modules
- Real time status reporting at luminaire, emergency and control device level including emergency testing, scheduling and reports. This complies with IEC 62386 and BS EN50172
- Human Centric Lighting control (Circadian cycle). Bio-dynamic, diurnal, tunable white and general colour control

Additional equipment features:

- GUI Graphical User Interface (proprietary licensed software)
- AV Interface
- BACnet integration gateway
- CNWEBINT Interface Module - user level web interface tool
- DMX Control using CNX2CR router
- Where DALI-2 requirements are on a project, please see our DALI-2 Technical Application Note using our specific range of DALI-2 compliant products

A great advantage of the Whitecroft Connect System is that the 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 300M or the maximum load capacity of each DALI subnet at 64 Devices or 250mA. Whitecroft recommended design levels are 204mA and 54 devices (typically a maximum of 12 controls devices) and per DALI subnet. Please note that a DALI subnet should be treated as polarity conscious unless otherwise stated in the installation instructions. See below table for details of typical components loadings.

	Devices	mA
Luminaires		
DALI Luminaire (Single Driver)	1	2
DALI Emergency Module (Additional)	1	2
LED Colour Change Driver (RGBW)	4	2
Control Devices		
CNP... PIR No Photocell	1	10
CNP... PIR No Photocell	1	15
CNP... Multisensor PIR/Photocell/IR Receiver	1	10
CNMR 360 Degree Microwave No Photocell	1	20
CNS... Scene Setting Plate	1	10
CNSIU Mini Input Unit (Switch Interface)	1	10

Please note some luminaires may contain more than one driver

Whitecroft Connect DALI Subnets (64 devices) are derived from DALI Routers 1, 2 and 4 Subnet versions. Larger systems can be constructed easily by linking DALI Routers together through an Ethernet Network allowing information between DALI Routers to be shared. Please note that the Ethernet Network is to be supplied and installed by others.

Note: For small standalone applications our non-networkable CNPSU single channel DALI power supply can be used. This is a high value, reduced logic solution.

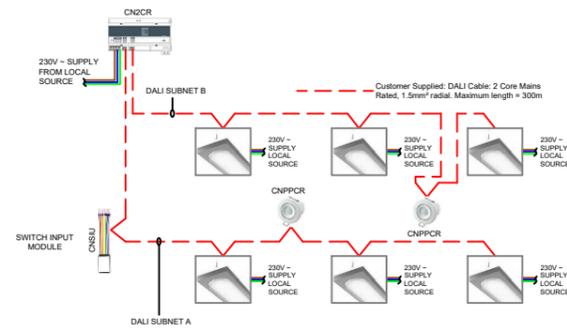
Whitecroft Connect Technical Data

- Mains Cable: Solid $\leq 4\text{mm}^2$; Stranded $\leq 2.5\text{mm}^2$
- DALI Cable: 2 Core 1.5mm² radial. Maximum length = 300m. 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 10/100Mbps, Cat 5e up to 100m (Audio MDI/MDI-X Crossover). All equipment, wiring and connections are the responsibility of the customer
- Mains Power Supply: 100vAC-240vAC (Nominal), 85vAC-264vAC (Absolute); 45Hz-65Hz
- Power Consumption: 23VA
- Power Circuit Protection: 6A MCB Maximum
- Dimensions: Single/Dual Channel = 160mm x 100mm x 58mm
- Dimensions: Four Channel = 177mm x 99.5mm x 58mm
- DIN Rail Mounted (Contractor to supply separate enclosure)
- DALI Data Transfer: DALI-2 Application Controller (Single Master) Parts: 101 - System Components; 103 - Control Devices
- When using our CNSIU Mini Input Unit, we would typically recommend either single retractable as MK K4910 or 2 way centre off retractable as MK K4900.

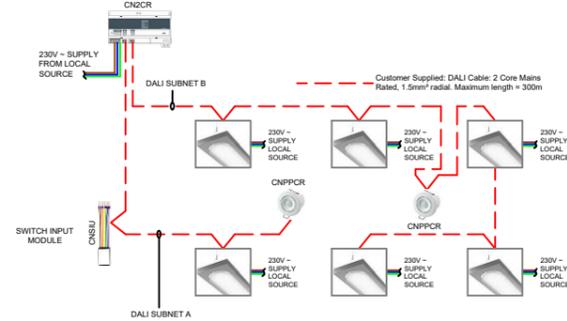
Note: if the customer's Ethernet network is not dedicated to the Whitecroft Connect control system then static IP addresses will need to be issued to Whitecroft prior to the commissioning of the controls installation. Static IP addresses will be required for each DALI Router, each PC and up to 6 additional IP addresses should a Graphical User Interface be installed. Please liaise with Whitecroft Commissioning Department for confirmation of the number of Static IP addresses required.

Please refer to latest copy of Whitecrofts Comapplication drawings that indicate which lighting circuits have been allocated to specific routers. Any deviation from these drawing may result in the router's maximum loadings being exceed. Any changes that are required should be consulted with Whitecroft to ensure no overloads happen and no additional equipment or service requirements are incurred.

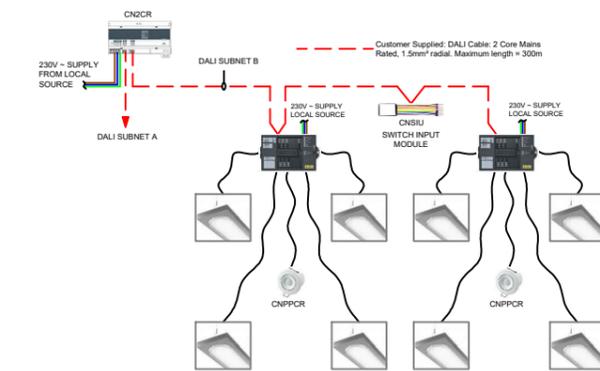
Typical Whitecroft Connect Radial Topology



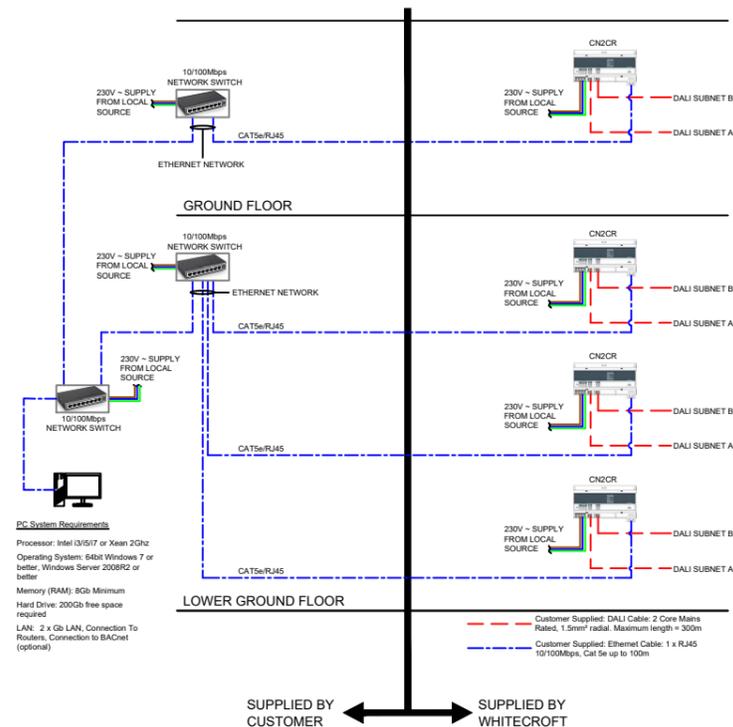
Typical Whitecroft Connect Branched Radial Topology



Typical Whitecroft Connect Prefabricated Wiring (CFL) and Power Distribution Unit (PDU) Topology



Typical Example Whitecroft Connect Networked System



Whitecroft Connect Typical Wiring Application Notes

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Note: - All information detailed in this document is not project specific, and is provided as a typical example only. Whitecroft Lighting reserve the right to make changes to Equipment and Specification as required. It is the customers responsibility to verify the required specification on a project by project basis.

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