





COMRA 173



COMRB 174



COMRC 175



COMRG 176



COMRD 177



COMRE 178



COMRF 179



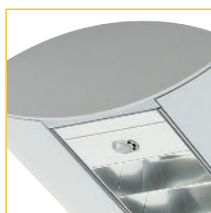
COMRJ 180



COMRL 181



COM3 182



COM4 182



accessories 183



small area hub 186



open plan hub 188



large area hub 190



DALI addressable hub 194



DALI router 196



switch panels 198



hand held controller 198



addressable photocells 199



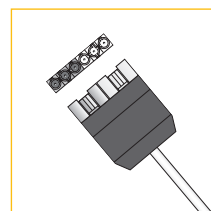
DALI switch input unit 199



DALI power supply 200



LCD touch panels 201



command fast link 202



Control Elements

There are 4 elements that can be used independently or linked together to create a fully functioning control system:



Command Detectors

We offer a full range of detectors, from manual switching to DALI or DSI control. These detectors are available to suit a wide range of applications from simple presence detection in a confined area to combined daylight and absence detection over a wide range.



Intelligent Luminaires

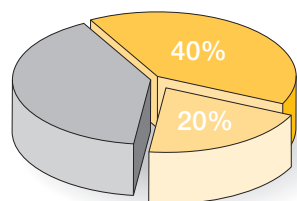
We are able to offer fully integrated controls on most Whitecroft Lighting luminaires within this catalogue. The Command 3 or 4 gives built in occupancy and daylight dimming.

controls overview

Energy

No building is commissioned today without consideration being given to lighting controls and the current British and European standards. Control systems bring energy efficiency and sustainability to a building, along with an inherent flexibility. Whether a simple absence detection system or a complex, multi-control system, the savings in energy consumption can be dramatic.

TOTAL ENERGY USE



- Potential saving from occupancy control
- Potential saving from daylight harvesting

Functionality

The use of lighting controls can enhance the functionality of any space. This can be achieved by scene setting, which can deliver the appropriate light for any task, rather than a blanket scheme that has to meet all of the needs of the space. This results in a more comfortable and productive environment. Lighting controls can also bring consistency to a lit area, measuring the ambient daylight levels in a space and adjusting the lighting accordingly. All of this can be controlled automatically, whilst simple manual overrides or intuitive interfaces can be included for the ultimate in user control.

Flexibility

With the addition of structured wiring systems, installation can be simplified and time reduced. Structured wiring also brings a degree of flexibility, with the ability to re-configure lighting schemes by simply un-plugging and changing or adding luminaires and control devices as required. This can be particularly useful in open-plan areas, where the changing needs of the user often means movement in partitions and the creation of cellular offices. For the ultimate in flexibility, DALI luminaires and controls can be installed allowing for remote, software based reconfiguration of a lighting scheme.



Command Systems

We offer a wide range of hub-based systems designed to meet the needs of a range of typical applications, from small area, open plan or to building wide requirements. We have dedicated classroom solutions and highly flexible DALI solutions.



Command Fast Link

We offer a full range of structured wiring components, fully compatible with our control elements, for integrated localised lighting and controls solutions. These can reduce installation time and remove risk for the specifier and installer.

detector quick reference guide

With a wide variety of detector types to choose from, selecting the correct detector is critical to the running of the control system. There are two basic types of detection, daylight sensing and occupancy sensing.

Daylight sensing Photocell systems measure the ambient light in a room and control the artificial lighting levels by either switching or dimming.

Occupancy detectors monitor a room for movement and can control the lighting accordingly. These switch or dim lighting after no movement has been detected for a pre-set or programmable period of time.

Passive Infra Red (PIR) detectors measure body heat and should be used in medium to high traffic areas such as open plan offices or in areas where movement is obvious such as store cupboards or communal access areas.

Microwave detectors monitor movement and are more sensitive than PIR's, their extra range and directional capability mean that they are well suited for use in classrooms and corridors.

The DSI and DALI detectors in this section are for broadcast systems, meaning they require minimal commissioning

Detector	Catalogue Page Number	Mounting type	Detector type	Detector range	Maximum recommended ceiling height	Control method	Detection method	Occupancy type	Off delay x minutes	Daylight hold off	Daylight regulating	Programmable	Maximum load
PIR Detector COMRA	173	Recessed	360°	Ø 6m @ 2.4m	3m	Switch live	PIR	Presence	20 min	Optional	No	No	6 amps
Programmable PIR Detector COMRB	174	Recessed/ Surface	360°	Ø 6m @ 2.4m	3m	Switch live/ Dual circuit	PIR	Presence	5-35 min	Yes	No	Yes	6 amps
Programmable Dimming PIR Detector COMRC	175	Recessed/ Surface	360°	Ø 6m @ 2.4m	3m	Analogue 1-10V/ DSI / DALI	PIR	Presence Absence	5-35 min	No	Yes	Yes	6 amps 9 ballasts
Directional Ultrasound Detector COMRD	177	Surface	Directional	10m x 10m rooms and up to 15m corridors	5m	Switch live	Ultrasonic	Presence	5-15 min	Yes	No	Manual	10 amps
Directional Microwave Detector COMRE	178	Surface	Directional	20m x 20m rooms and up to 25m corridors	3.5m	Switch live/ DSI / DALI	Microwave	Presence	10 sec-20 min	Yes	Yes	Manual/Yes	10 amps
Long Range Microwave Detector COMRF	179	Surface	Directional	30m/60m	6m	Switch live	Microwave	Presence	0-16 min	Yes	No	Manual	10 amps
Programmable Microwave Detector COMRGD	176	Recessed/ Surface	360°	Ø 10m @ 2.6m	3m	DSI / DALI Dual circuit	Microwave	Presence Absence	5-60 min	Yes	Yes	Yes	6 amps 25 ballasts
Programmable Photocell COMRJ	180	Recessed	N/A	N/A	6m	Switch live	N/A	N/A	N/A	Yes	No	Yes	6 amps
Programmable Dimming Photocell COMRJDIM	180	Recessed	N/A	N/A	6m	DSI / DALI analogue	N/A	N/A	N/A	Yes	Yes	Yes	25 ballasts
Warehouse/Aisle Microwave Detector COMRL	181	Surface	Directional	5m - 30m	12m	Switch live/ DSI / DALI	Microwave	Presence Absence	10 sec-99 min	Yes	Yes	Manual	10 amps 20 ballasts
Integrated Intelligent Detector COM3	182	Integrated	360°	Ø 6m @ 2.4m	3m	DALI	PIR	Presence Absence	5-35 min	Yes	Yes	Yes	2 DALI
Integrated Intelligent Detector COM4	182	Integrated	360°	Ø 6m @ 2.4m	3m	Analogue 1-10V/ DALI	PIR	Presence Absence	5-35 min	Yes	Yes	Yes	6 amp / 2 DALI

PIR detector

> weblink > **COMRA**

- Uses passive infra red detection technology
- Recessed ceiling mounted 360° detector
- Off delay of 20 minutes from last observed movement
- 10 second walk test mode
- Switches up to 6A of lighting
- Detects movement up to 6m diameter range at 2.4m ceiling height
- Maximum recommended mounting height 3m
- Quick locking clamp for suspended ceiling fixing as standard
- Photocell measures daylight penetration and holds off luminaires if adequate daylight is present (COMRA only)
- Remote switching via hand held controller
- Supplied complete with 3m lead



ORDER CODES

PIR detector with Photocell

Recessed Mounting **COMRA**

PIR detector without Photocell

Recessed Mounting **COMRAU**

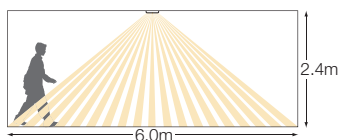
Options

Plasterboard Fixing Kit **COMPB**

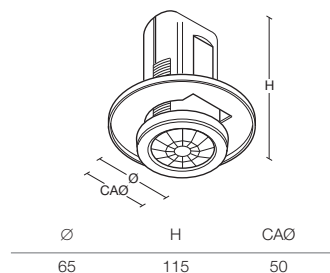
Optional Command Fast Link connector

CFL 4 POLE Add suffix **/CFL4P** to order code i.e. COMRA/**CFL4P**
CFL 6 POLE Add suffix **/CFL6P** to order code i.e. COMRA/**CFL6P**

DETECTION RANGE



DIMENSIONS



ACCESSORIES (see page 183)



Hand held programmer COMPTC
for COMRA photocell programming only



Hand held controller COMHHC

Detector	Mounting type	Detector type	Detector range	Max ceiling height	Control method	Detection method	Occupancy type	Off delay	Daylight hold off	Daylight regulating	Programmable	Maximum load
PIR Detector COMRA	Recessed	360°	Ø 6m @ 2.4m	3m	Switch live	PIR	Presence	20	Yes	No	No	6 amps
PIR Detector Without Photocell COMRAU	Recessed	360°	Ø 6m @ 2.4m	3m	Switch live	PIR	Presence	20	No	No	No	6 amps

programmable PIR detector/photocell

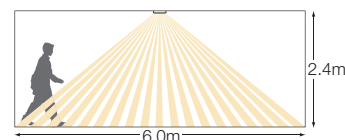
> weblink > **COMRB**

- Uses passive infra red detection technology
- For recessed or surface ceiling mounting 360° detector
- Programmable via the COMPTC programmer
- Variable off delay of between 5 - 35 minutes from last observed movement including 10 second walk test mode
- Switches up to 6A of lighting
- Detects movement up to 6m diameter range at 2.4m ceiling height
- Maximum recommended mounting height 3m
- Quick locking clamp for suspended ceiling fixing as standard
- Photocell measures daylight penetration and switches luminaires dependant upon natural light level
- Dual circuit option -
1 x switched-live and 1 x volt-free circuit
(can be used to switch another device, e.g. Fan)
- Remote switching via hand held controller
- Recessed version supplied complete with 3m lead



Surface mounting

DETECTION RANGE



ORDER CODES

Programmable PIR detector

Recessed Mounting
Surface Mounting

COMRB
COMRBSM

Dual circuit programmable PIR detector

Recessed Mounting
Surface Mounting

COMRBDC
COMRBDCSM

Options

Plasterboard Fixing Kit

COMPB

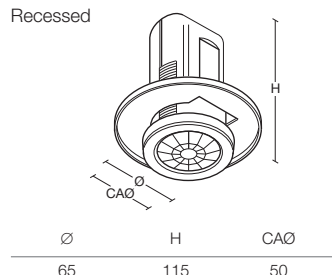
Optional Command Fast Link connector

CFL 4 POLE Add suffix **/CFL4P** to order code
CFL 6 POLE Add suffix **/CFL6P** to order code

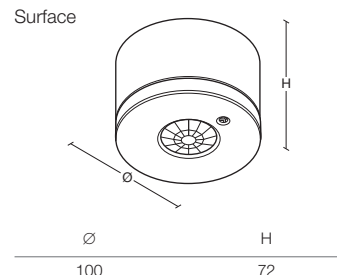
i.e. **COMRB/CFL4P**
i.e. **COMRB/CFL6P**

DIMENSIONS

Recessed



Surface



ACCESSORIES (see page 183)



Hand held programmer COMPTC



Hand held controller COMHHC

Detector	Mounting type	Detector type	Detector range	Max ceiling height	Control method	Detection method	Occupancy type	Off delay	Daylight hold off	Daylight regulating	Programmable	Maximum load
Programmable PIR Detector COMRB	Recessed/ Surface	360°	Ø 6m @ 2.4m	3m	Switch live	PIR	Presence	5-35 min	Yes	No	Yes	6 amps
Dual Circuit Programmable PIR Detector COMRBDC	Recessed/ Surface	360°	Ø 6m @ 2.4m	3m	1 x Switch live 1 x volt free	PIR	Presence	5-35 min	Yes	No	Yes	6 amps

programmable dimming PIR detector/photocell

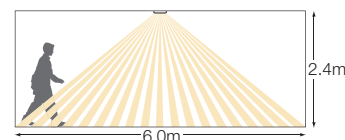
> weblink > **COMRC**

- Uses passive infra red detection technology
- For recessed or surface ceiling mounting 360° detector
- Programmable via the COMPTC programmer
- Variable off delay of between 5 - 35 minutes from last observed movement including 10 second walk test mode
- Analogue version switches up to 6A and dims up to 9 ballasts
- DSI/DALI versions controls up to 9 ballasts
- Detects movement up to 6m diameter range at 2.4m ceiling height
- Quick locking clamp for suspended ceiling fixing as standard
- Regulating photocell ensures a minimum maintained light level taking account of the contribution from adjacent luminaires and daylight
- Remote switching via hand held controller
- Recessed version supplied complete with 3m lead
- DSI/DALI wall switch connections for push to make switch to manually control luminaires (Not on CFL option)
- The Analogue (1-10V) detector can be used to control both Analogue (1-10V) and High Frequency luminaires. Analogue (1-10V) control gear is available with certain luminaires on request



Surface mounting

DETECTION RANGE



ORDER CODES

Analogue 1-10V programmable

Recessed Mounting	COMRCA
Surface Mounting	COMRCASM

DSI programmable

Recessed Mounting	COMRCD
Surface Mounting	COMRCDSM

DALI programmable

Recessed Mounting	COMRCY
Surface Mounting	COMRCYSM

Options

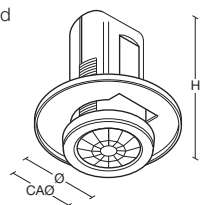
Plasterboard Fixing Kit	COMPB
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Optional Command Fast Link connector

CFL 6 POLE	Add suffix /CFL6P to order code	i.e. COMRCA/CFL6P
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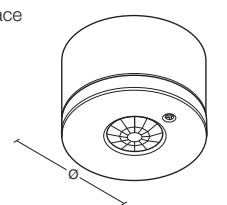
DIMENSIONS

Recessed



Ø	H	CAØ
65	115	50

Surface



Ø	H
100	72

ACCESSORIES (see page 183)



Hand held programmer COMPTC



Hand held controller COMHHC and COMSSC

Detector	Mounting type	Detector type	Detector range	Max ceiling height	Control method	Detection method	Occupancy type	Off delay	Daylight hold off	Daylight regulating	Programmable	Maximum load
Analogue 1-10V Programmable PIR Detector COMRCA/ASM	Recessed/ Surface	360°	Ø 6m @ 2.4m	3m	1 x analogue 1 x volt free	PIR	Presence Absence	5-35 min	No	Yes	Yes	6 amps up to 9 ballasts
DSI Programmable PIR Detector COMRCD/DSM	Recessed/ Surface	360°	Ø 6m @ 2.4m	3m	DSI	PIR	Presence Absence	5-35 min	No	Yes	Yes	9 ballasts
DALI Programmable PIR Detector COMRCY/YSM	Recessed/ Surface	360°	Ø 6m @ 2.4m	3m	DALI	PIR	Presence Absence	5-35 min	No	Yes	Yes	9 ballasts

programmable microwave detector/photocell

> weblink > **COMRG**

- Uses active microwave presence detection technology
- Ceiling mounted 360° microwave detector
- Recessed or surface mounting
- Switches up to 6A of lighting
- Sensitive to respond to very small movements
- Dual circuit control
 - switched output
 - separate DALI/DSI output for photocell control
- Wide angled lens detects movement up to 10m in diameter at 2.6m mounting height
- Measures daylight penetration and dims luminaires accordingly
- Maximum recommended mounting height 3m
- Wall switch override connections for push to make switch to manually control luminaires



Surface mounting



ORDER CODES

DSI microwave detector

Recessed Mounting
Surface Mounting

COMRGD
COMRDSM

DALI microwave detector

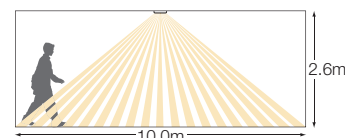
Recessed Mounting
Surface Mounting

COMRGY
COMRGYSM

Optional Command Fast Link connector

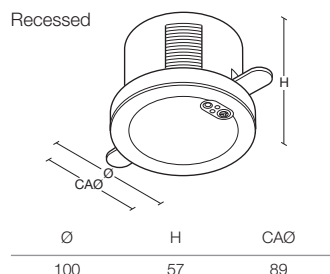
CFL 6 POLE/3 POLE Add suffix **/CFL63P** to order code i.e. **COMRG/CFL63P**

DETECTION RANGE

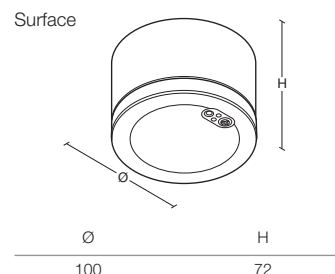


DIMENSIONS

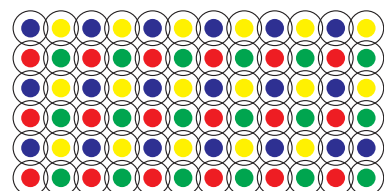
Recessed



Surface



DETECTION RANGE



For reliable operation it is essential that units of the same colour code do not occupy adjacent positions in open-plan areas. This is why Whitecroft supplies four variants of the COMRG Detector (Blue/Yellow/Red/Green). Orders are dispatched with a suitable colour code mix.

ACCESSORIES (see page 183)



Hand held programmer COMPTC



Hand held controller COMHHC and COMSSC

Detector	Mounting type	Detector type	Detector range	Max ceiling height	Control method	Detection method	Occupancy type	Off delay	Daylight hold off	Daylight regulating	Programmable	Maximum load
Ceiling Mounted Microwave Detector COMRGD	Recessed/ Surface	360°	Ø 10m @ 2.6m	3m	DSI Dual circuit	Microwave	Presence Absence	5-60 min	Yes	Yes	Yes	6 amps ≥ 25 ballasts
Ceiling Mounted Microwave Detector COMRGY	Recessed/ Surface	360°	Ø 10m @ 2.6m	3m	DALI Dual circuit	Microwave	Presence Absence	5-60 min	Yes	Yes	Yes	6 amps ≥ 25 ballasts

directional ultrasonic detector/photocell

> weblink > **COMRD**

- Uses ultrasonic detection technology
- Surface mounted directional detector
- 5-15 minute time delay including 5 second walk test
- Switches up to 10A of lighting
- Sensitive to respond to very small movements
- Detects movement in rooms up to 10m x 10m and up to 15m range along a corridor
- Measures daylight penetration and holds off luminaires if adequate daylight is present
- Adjustment controls accessible via side door for ON range, OFF range as well as OFF delay
- Maximum recommended mounting height 5m
- Semi recessed mounting kit available



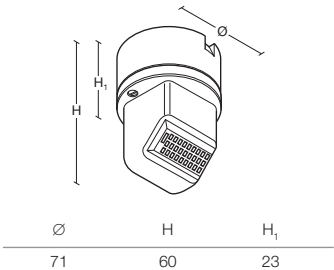
ORDER CODES

Directional ultrasonic detector

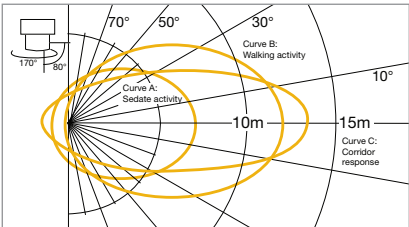
Surface Mounting
Semi Recessed Mounting Kit

COMRD
COMRDSFK

DIMENSIONS



DETECTION RANGE



Detection footprint at 2.4m mounting height

Detector	Mounting type	Detector type	Detector range	Max ceiling height	Control method	Detection method	Occupancy type	Off delay	Daylight hold off	Daylight regulating	Programmable	Maximum load
Directional Ultrasound Detector COMRD	Surface	Directional	10m x 10m rooms and up to 15m corridors	5m	Switch live	Ultrasonic	Presence	5-15 min	Yes	No	Manual	10 amps

directional microwave detector/photocell

> weblink > **COMRE**

- Uses active microwave detection technology
- Surface mounted directional detector
- 10 second to 20 minute time delay
- Switches up to 10A of lighting
- Sensitive to respond to very small movements
- Capable of effective presence detection in rooms of up to 20m x 20m and up to 25m range along a corridor
- Measures daylight penetration and holds off luminaires if adequate daylight is present (COMRE only)
- Adjustment controls for ON range, OFF range, OFF delay and photocell via side door (COMRE only)
- Maximum recommended mounting height 3.5m
- Semi recessed mounting and wall mounting kit available
- DSI/DALI versions available. Connections for push to make switch to manually control luminaires (COMRED and COMREY only)



Semi Recessed Mounting

ORDER CODES

Directional Microwave Detector

Surface Mounting **COMRE**

DSI Directional Microwave Detector

Surface Mounting **COMRED**

DALI Directional Microwave Detector

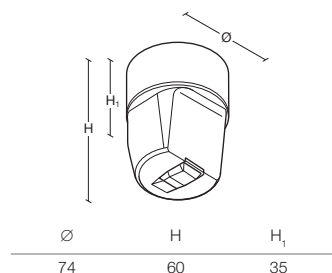
Surface Mounting **COMREY**

Options

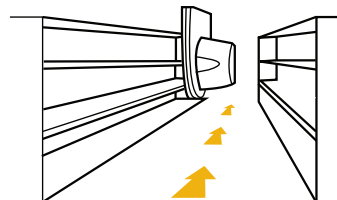
Semi Recessed Mounting Kit **COMRESFK**

Wall Mounting Kit **COMREWMK**

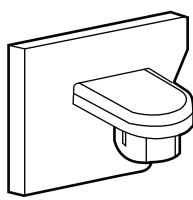
DIMENSIONS



METHODS OF WALL MOUNTING



Vertical Mounting



Horizontal Mounting

ACCESSORIES (see page 183)



Advance programmer COMAP



Hand held controller COMHHC

Detector	Mounting type	Detector type	Detector range	Max ceiling height	Control method	Detection method	Occupancy type	Off delay	Daylight hold off	Daylight regulating	Programmable	Maximum load
Directional Microwave Detector COMRE	Surface	Directional	20m x 20m rooms and up to 25m corridors	3.5m	Volt free	Microwave	Presence	10 sec-20 min	Yes	No	Manual	10 amps
Programmable Directional Microwave Detector COMRED	Surface	Directional	20m x 20m rooms and up to 25m corridors	3.5m	DSI	Microwave	Presence Absence	5-60 min	Yes	Yes	Yes	6 amps 25 ballasts
Programmable Directional Microwave Detector COMREY	Surface	Directional	20m x 20m rooms and up to 25m corridors	3.5m	DALI	Microwave	Presence Absence	5-60 min	Yes	Yes	Yes	6 amps 25 ballasts

long range microwave detector

> weblink > **COMRF**

- Uses active microwave detection technology
- Surface mounted long range microwave detector
- 0 – 16 minutes time delay adjustable in control unit
- Superior microwave technology detects movement up to 60m range
- Robust construction allows presence detection for a variety of large areas such as Warehouses, Sports Halls, Car parks etc.
- Control unit and head box can be mounted up to 100m apart
- Dual circuit control unit can switch 10A in total



COMRFCON2 Control Unit with dual circuit relay

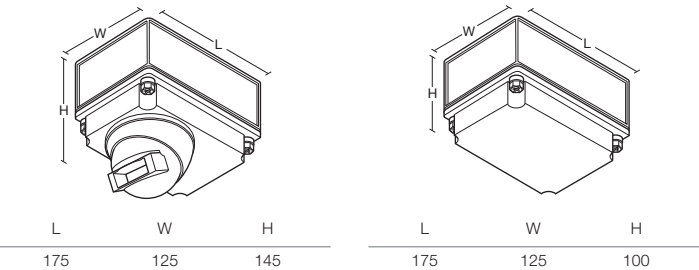
ORDER CODES

Long range microwave detector

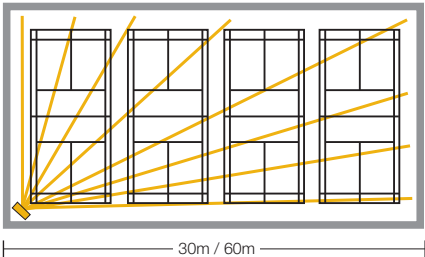
30m head box mounted*	COMRF30B
60m head box mounted*	COMRF60B
Control unit with dual circuit relay	COMRFCON2

* COMRF30B/60B must always be ordered in conjunction with COMRFCON2 control unit

DIMENSIONS



POSITIONING



The detector can see through glass and should be positioned away from thin partitions and windows

Detector	Mounting type	Detector type	Detector range	Max ceiling height	Control method	Detection method	Occupancy type	Off delay	Daylight hold off	Daylight regulating	Programmable	Maximum load
Long Range Microwave Detector COMRF30B	Surface	Directional	30m	6m	Switch live	Microwave	Presence	0-16 min	Yes	No	Manual	10 amps
Long Range Microwave Detector COMRF60B	Surface	Directional	60m	6m	Switch live	Microwave	Presence	0-16 min	Yes	No	Manual	10 amps

programmable photocells

> weblink > **COMRJ**

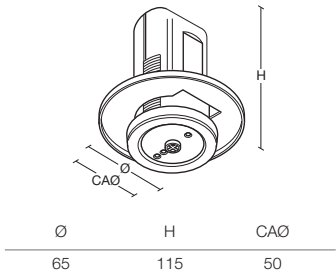
- Recessed ceiling mounted photocell
- Passing cloud timer
- Programmable via the COMAP programmer
- Supplied complete with 3m lead
- Programmable photocell
 - Switches up to 6A of lighting
 - Measures daylight penetration and holds off luminaires accordingly
- Programmable dimming photocell
 - Controls a maximum of 25 ballast(1-10V, DSI DALI)
 - Measures daylight penetration and dims luminaires accordingly



ORDER CODES

Programmable photocell		
Recessed Mounting		COMRJ
Dimming universal photocell		
Recessed Mounting		COMRJDIM
Options		
Plasterboard Fixing Kit		COMPB
Optional Command Fast Link connector		
CFL 6 POLE	Add suffix /CFL6P to order code	i.e. COMRJ/CFL6P

DIMENSIONS



ACCESSORIES (see page 183)



Advance programmer COMAP



Hand held controller COMHHC and COMSSC

Detector	Mounting type	Detector type	Detector range	Max ceiling height	Control method	Detection method	Occupancy type	Off delay	Daylight hold off	Daylight regulating	Programmable	Maximum load
Programmable Photocell COMRJ	Recessed	N/A	N/A	6m	Switch live	N/A	N/A	N/A	Yes	No	Yes	6 amps
Programmable Dimming Photocell COMRJDIM	Recessed	N/A	N/A	6m	DSI / DALI analogue	N/A	N/A	N/A	Yes	Yes	Yes	25 ballasts

warehouse/aisle microwave detector/photocell

> weblink > **COMRL**

- Surface mounted directional microwave detector with programmable features
 - Range sensitivity 5m – 30m
 - Time delay 10 sec – 99 minutes
 - Maintained lighting level
- Switches up to 10A of lighting
- Measures daylight penetration and holds off or dims luminaires if adequate daylight is present
- Adjustable stirrup bracket for wall or ceiling mounting
- Maximum recommended mounting height 12m



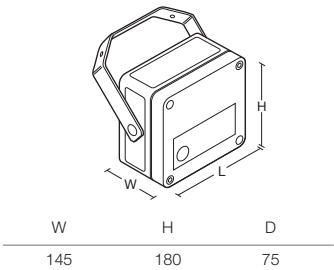
ORDER CODES

Warehouse / aisle microwave detector

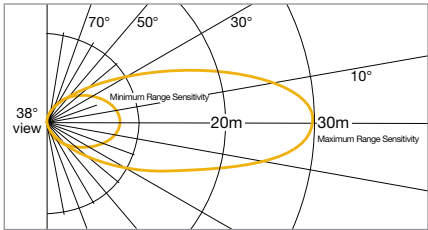
Surface Mounting
Hand Held Controller

COMRL
COMRLHHP

DIMENSIONS



DETECTION RANGE



Fully adjustable range sensitivity

Detector	Mounting type	Detector type	Detector range	Max ceiling height	Control method	Detection method	Occupancy type	Off delay	Daylight hold off	Daylight regulating	Programmable	Maximum load
Warehouse/Aisle Microwave Detector COMRL	Surface	Directional	5m – 30m	12m	Switching/DSI / DALI	Microwave	Presence Absence	10 sec-99 min	Yes	Yes	Manual	10 amps 20 ballasts

integrated intelligent detector/photocells

> weblink > **COM3**
> **COM4**

- Integrated detector
- Programmable via the COMAP and COMPTC programmer
- Regulating photocell ensures minimum maintained light level taking into account the contribution from adjacent luminaires and daylight
- Detects movement up to 6m diameter
- 5-35 minute time delay including 10 second walk test
- Remote switching via hand held controller
- Wall switch override to adjust light level or turn luminaires on or off (COM4 DALI only)
- DALI versions can control master and slave - contact our technical department for further information



Command 3



Command 4

ORDER CODES

COM3 DALI PIR Detector

See luminaire pages for order codes

COM4 Analogue PIR Detector

See luminaire pages for order codes

COM4 DALI PIR Detector

See luminaire pages for order codes



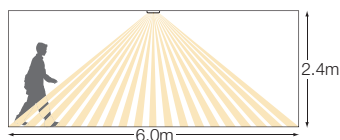
COM3 Infill mounted option



COM4 louver mounted option

Look for the  or  symbol

DETECTION RANGE



ACCESSORIES (see page 183)



Advance programmer COMAP



Hand held programmer COMPTC



Hand held controller COMHHC and COMSSC

Detector	Mounting type	Detector type	Detector range	Max ceiling height	Control method	Detection method	Occupancy type	Off delay	Daylight hold off	Daylight regulating	Programmable	Maximum load
Integrated PIR Detector COM3	Integrated	360	Ø 6m @ 2.4m	3m	DALI	PIR	Presence Absence	5-35 min	Yes	Yes	Yes	2 DALI
Integrated PIR Detector COM4	Integrated	360	Ø 6m @ 2.4m	3m	Analogue 1-10V/ DALI	PIR	Presence Absence	5-35 min	Yes	Yes	Yes	6 amp / 2 DALI /

accessories

hand-held controller

> weblink > **COMHHC**



- A hand held controller designed to allow temporary local user override – on, off, raise and lower light level

ORDER CODES

Hand-held

Hand-held Controller

COMHHC

scene setting hand-held controller

> weblink > **COMSSC**



- A hand held controller designed to allow temporary local user override – on, off, raise and lower light level
- 6 presets for scene setting

ORDER CODES

Scene Setting hand-held

Hand-held Controller

COMSSC

hand-held programmer

> weblink > **COMPTC**



- A hand held programmer that allows the user to set variable parameters on all Whitecroft Lighting Command COMR detectors by using switches within the device

ORDER CODES

Programmable

Hand-held Programmer

COMPTC

advanced hand-held programmer

> weblink > **COMAP**



- A hand held programmer that allows the user to set variable parameters on all Whitecroft Lighting Command COMR detectors via a digital display and on screen menu. This device can also interrogate and download settings from a detector

ORDER CODES

Advanced Programmable

Hand-held Programmer

COMAP

command systems overview

Command Systems hubs can connect groups of luminaires and controls together bringing flexibility and rapid installation to any lighting scheme. There are a variety of different hubs available, each optimised to different applications. Command Systems hubs are all hardware configurable, whilst Command Digital is remotely user configurable via a P.C. or programmable interface.



Command Small Area Hub

For flexible lighting controls in a confined area such as a classroom or small office, we have developed the Command Small Area Hub. This unique hub allows for up to 72 different pre-planned lighting configurations. It can be used in conjunction with our Command Fast Link wiring system and a range of detectors to provide features such as absence detection and daylight dimming with full manual override if required. The hub enables rapid installation and can be reconfigured at any time if the requirements of the space change.



Command Open Plan Hub

When a larger area is being considered, our Command Open Plan Hub brings flexibility and rapid installation to any area. Available in 6 or 4 pole configurations for dimming or fixed output applications, each hub distributes power through 10 outputs in two independently switched circuits, allowing for flexible luminaire/detector arrangements. These hubs can be linked together to provide power distribution over a large, open plan area.



Command Large Area Hub

When control is required over a large area such as a factory or retail space, the Command Large Area Hub offers the perfect solution. It can control up to 500 luminaires on each of 4 channels, independently controlled through 6 pre-programmable scene inputs. Each channel has a photocell input allowing for daylight hold-off where appropriate.



Command Digital

For the ultimate in flexibility and scalability, we offer the Command Digital DALI addressable system which can be used to control the lighting across an entire building. This system comprises a Command Digital Hub which can control up to 63 luminaires, along with a wide range of detectors, control interfaces and accessories. Each hub can be linked together using our Command Digital Router to create a fully addressable, remote software controlled system across an entire building.



command small area hub

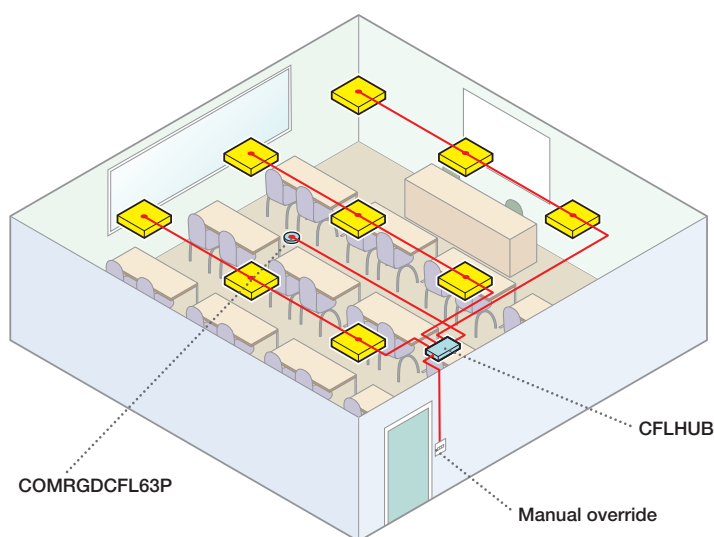
> weblink > **CFLHUB**

- Low profile housing, perimeter mounted connector for mounting in limited void space
- Integrated mounting detail for surface, rod or trunking fixing
- Output connections
 - 3 x 6 pole lighting outputs rated at 6A
- Control Connections
 - Dimming or switching detector input socket
 - 1 - 3 gang manual switch override socket
- Emergency lighting key switch socket
- Injection moulded flame retardant housing with mains entry cover and cable retainer

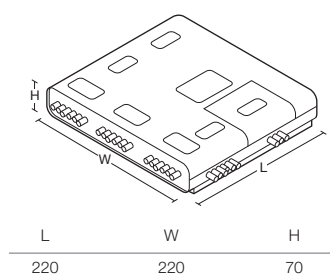
The Command Classroom Hub can be used in conjunction with CFL components to deliver a wide variety of configurations. An on-line systems builder is available to show how the hub can be configured to control daylight dimming, occupancy, manual overrides and emergency lighting options. For more information use weblink CFLHUB.



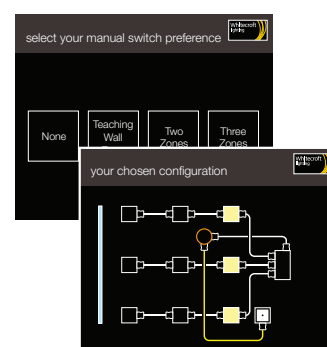
Typical classroom configuration utilising a command microwave detector/photocell/COMRGDCFL63P for absence detection, window row dimming and manual override



DIMENSIONS



WEB CONFIGURATOR



Use our web based configurator to define one of 57 ways to connect the CFLHUB for a classroom application. For more information use weblink CFLHUB.

ORDER CODES

Hub

Command Small Area Hub

CFLHUB

Command Fast Link

See pages 202 to 207 for a listing of the range of leads and detectors to complete a full Command Fast link plug and play installation. A design service is available, please contact the Whitecroft office for further details.

TO SPECIFY

Local area lighting control module with 3 off 6 pole 6A outputs, occupancy/daylight detection and manual override switch inputs. Compatible with GST18 connectors – as Whitecroft Lighting CFLHUB

command open plan hub

> weblink > **CDPM**

- Available in two formats:
 - Non-dimming – CPDM Alpha
 - Dimming – CPDM Beta
- Output connections –
 - 10 Wieland type 4 pin GST/18 sockets (CPDM Alpha)
 - 10 Wieland type 6 pin GST/18 sockets (CPDM Beta)
- Switching capacity – 6 amps per socket outlet but the total load must not exceed 8 amps per switching group or 16 amps for the full unit (6A when COM detectors are used)
- Can be wall switched as one group of 10 or two groups of 5
- Can be PIR switched as one group of 9 or two groups of 4
- Command control via PIR detector heads. Detectors simply plug into Wieland sockets
- 3 x 20mm knockouts for cable entry
- Sockets mounted in galvanised steel box
- Emergency lighting key switch terminations



ORDER CODES

CPDM

Non-dimming command open plan hub

CPDMALPHA

Command remote PIR non-dimming complete with 4-pin wieland plug and 3m lead (see **COMRA** for functions)

COMRACFL4P

Dimming command open plan hub

CPDMBETA

Command remote PIR non-dimming complete with 6-pin wieland plug and 3m lead (see **COMRB** for functions)

COMRBCFL6P

Command remote PIR digital (DSI) dimming complete with 6-pin wieland plug and 3m lead (see **COMRCD** for functions)

COMRCDCL6P

Command remote PIR digital (DALI) dimming complete with 6-pin wieland plug and 3m lead (see **COMRCY** for functions)

COMRCYCFL6P

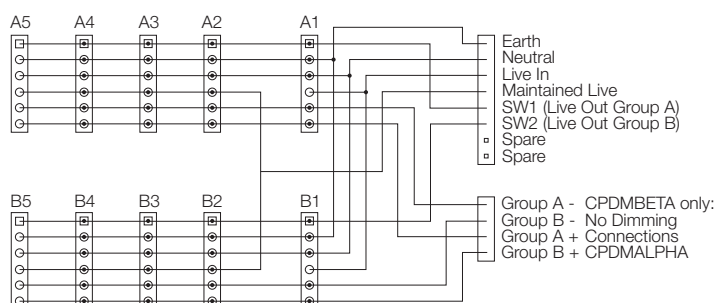


COMRA/COMRB

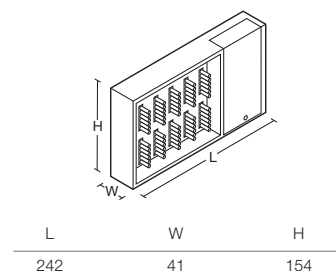


COMRCD/COMRCY

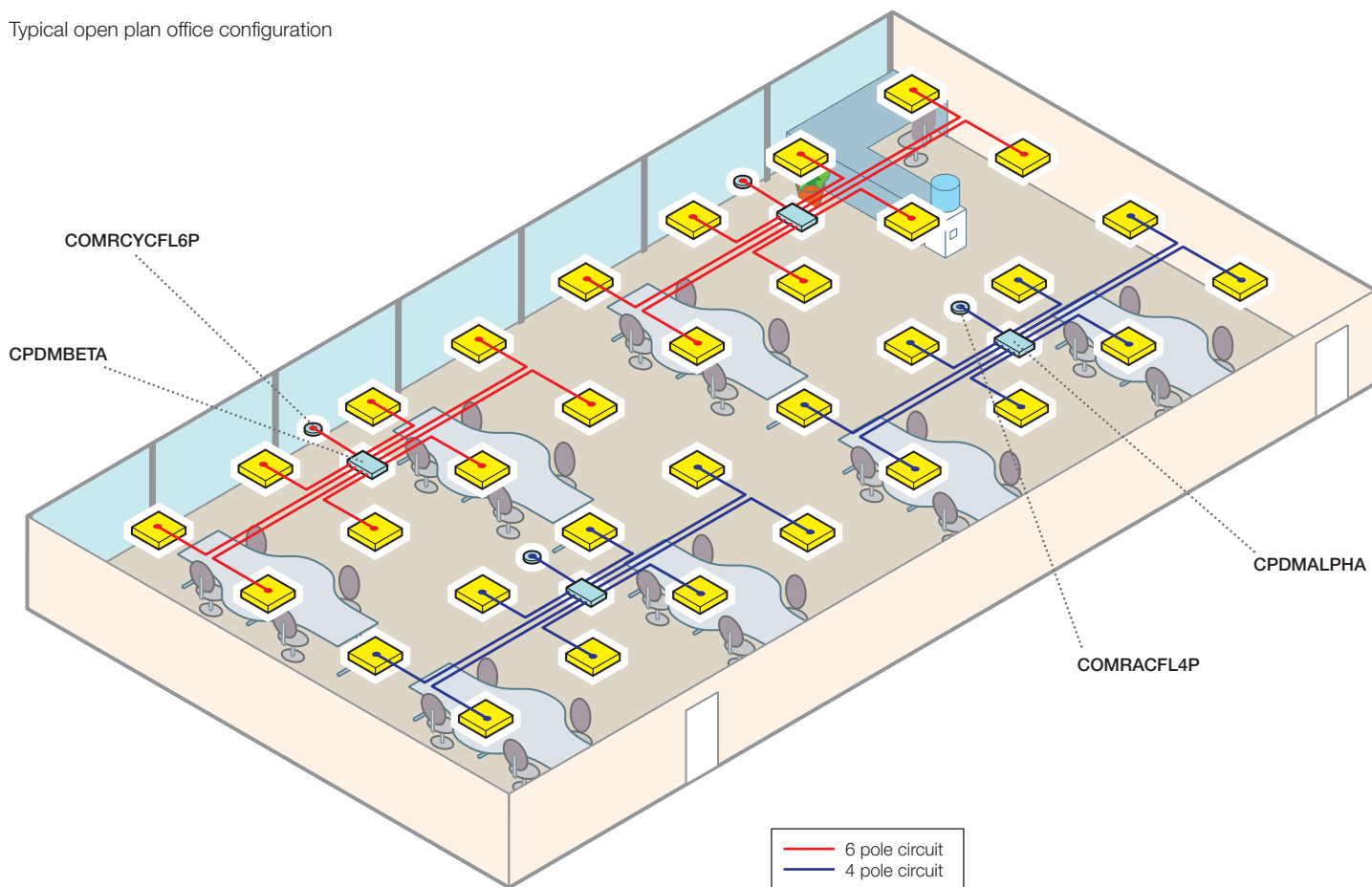
CONNECTIONS



DIMENSIONS

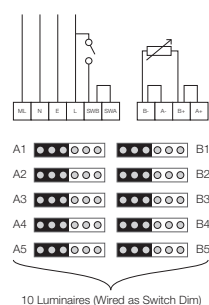


Typical open plan office configuration

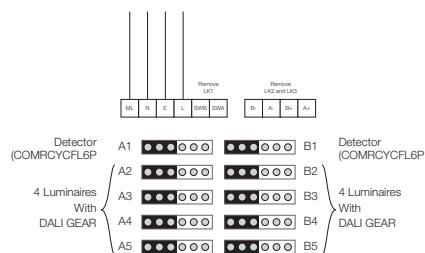


SAMPLE WIRING DIAGRAM

Wall switching/dimming



Two DALI dimming detectors



TO SPECIFY

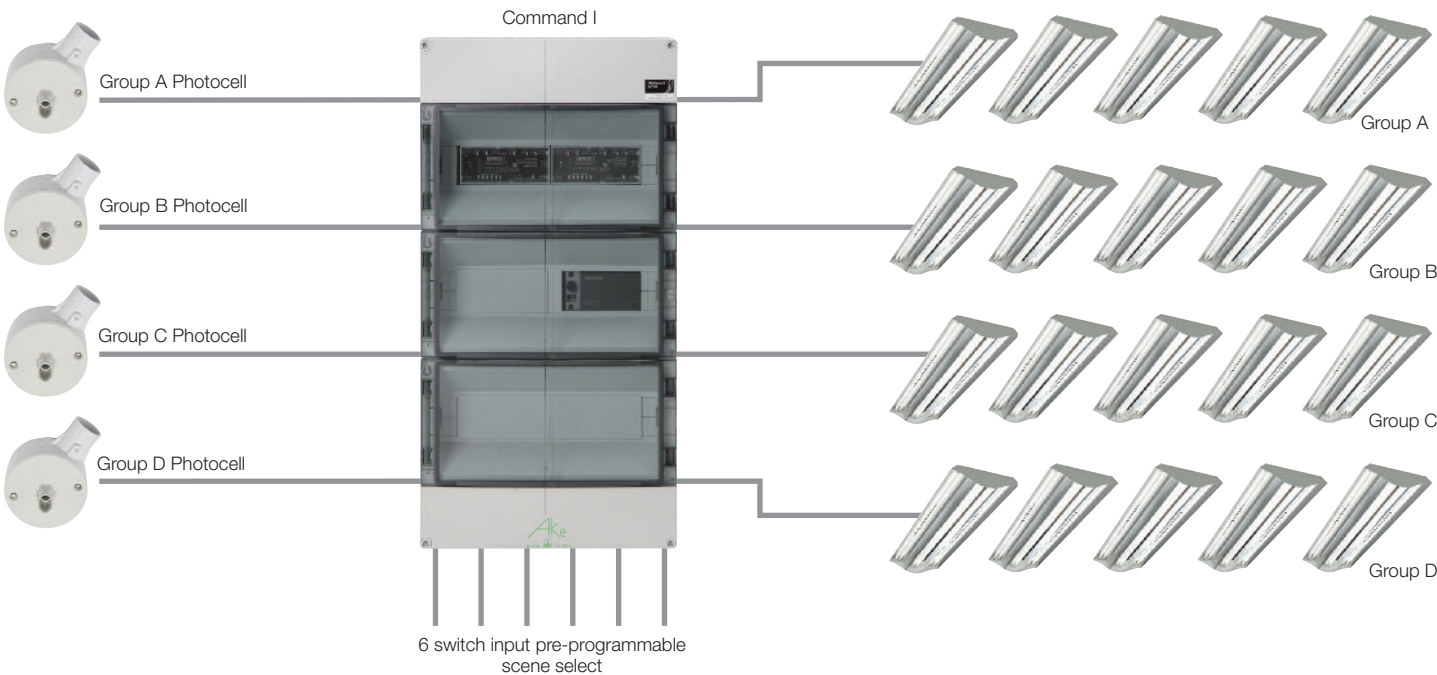
Intelligent power distribution module with 10 Wieland type GST/18 output sockets switched as one group of 10 or two groups of 5 – wall switched, one group of 9 or two groups of 4 – PIR switched. Body in galvanised steel – as Whitecroft Lighting CPDM



command large area hub

> weblink > COMI

SYSTEM ARCHITECTURE



- Configurable outputs for DALI/DSI/1-10V analogue control
- Outputs
 - Available as 2 or 4 channel system
 - Each channel has 1 x relay and 1 x dimming output
- Inputs
 - Photocell for dimming control
 - 6 x volt-free switch inputs for preset scene selection or connection to BMS
- Can control up to 150 DSI/DALI ballasts or 500 1-10V analogue ballasts per output channel
- Complete with dedicated power supply module for mains voltage connection
- Enclosed in IP65 DIN rail cabinet for ease of installation
- Post installation commissioning required for custom schemes



Regulating Photocell



Control Module

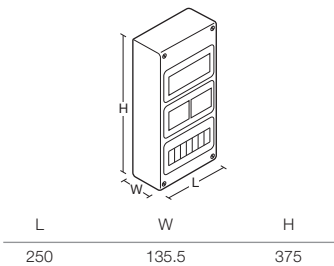
ORDER CODES

Command-i

2 Channel large area central control system module
4 Channel large area central control system module
Regulating photocell

COM-ICL-2
COM-ICL-4
COMICLPC

DIMENSIONS



TO SPECIFY

Intelligent distribution module for large area dimming control with configurable output channels and photocell input. Scene selection via 6 volt free switches that can be linked to BMS. Body in ABS DIN rail housing – as Whitecroft Lighting COMMAND-I



DALI Control Elements

There are several elements which can be used independently or linked together to create a fully functioning DALI control system:



DALI Hub

The DALI Hub can be used to create highly functional and flexible lighting installations for up to 63 luminaires.



DALI Router

The DALI Router can be used to link DALI Hubs to create a simple plug and play system that is fully scalable. The DALI Router can also be used independently to be the central controller for an intelligent building solution.



addressable DALI systems

What is DALI?

DALI stands for Digital Addressable Lighting Interface. It is a uniform standard throughout the lighting industry designed to cope with the needs of modern lighting control systems. It allows for ballasts, transformers, emergency fittings and control devices to be combined into a single seamless system controlled from a single point. Whilst most applications can be met with a simple local area broadcast system as described in the previous pages, addressable systems offer an increased level of functionality and flexibility for complex projects.

The benefits of DALI

Lighting designers benefit from the ability to control a wide range of devices, and can concentrate on the requirements of the building rather than the limitations of wiring. Installation time is reduced with simple 6 core wiring without segregation.

Commissioning is simple with intuitive interfaces and once installed, switching and dimming arrangements can be re-configured without the need for hardware changes. This reduces the through life cost of any installation. Building occupiers can customise local lighting to their own preference, and benefit from a more economical and motivating environment.

DALI Broadcast

The Control device sends a DALI signal to all DALI ballasts connected and they all react to the command. All or COMR local area DALI detectors work in this way

DALI Addressable

All control devices and DALI ballasts with luminaires are assigned a unique address during onsite commissioning. A command from a control device can then communicate with specific luminaires on the DALI bus. Zones can be software defined for more complete control configuration. The following pages help you create a DALI addressable system



DALI Accessories

With the Whitecroft Lighting DALI offer we are able to integrate simple detection and manual override via a range of devices with varying levels of sophistication

DALI addressable hub

> weblink > **CFLDALIHUB**

The DALI addressable hub can be used in isolation to provide simple control to a localised application such as a classroom or office area. It has the added flexibility of being able to control multiple rooms up to the maximum addresses as detailed below.

- Low profile housing, perimeter mounted connector for mounting in limited void space
- Integrated mounting detail for surface, rod or trunking fixing
- Output connections
 - 3 x 6 pole lighting outputs rated at 6A
- Injection moulded flame retardant housing with mains entry cover and cable retainer

SYSTEM GUIDELINES

- Up to 63 addresses per hub (each ballast, detector or switch constitutes 1 address)
- Maximum 300m cable run and 250mA power consumption (typical 2mA per ballast)
- Up to 6A load on each of 3 socket outlets

SIMPLE WIRING

- Enhanced connectivity with CFL wiring components
- Switches and detectors can also be connected with CFL cables

SOFTWARE CONFIGURATION

- Post installation software interface can be used to define dimming zones for daylight harvesting or switching zones

SCENE SETTING

- Touch button panels can be programmed to control a variety of different scenes by individually addressing each luminaire within the space
- Simple corridor linkage can be programmed so the luminaires stay on at a defined level whilst adjoining areas are occupied
- Multiple lighting levels can be selected from the switch panel
- Switching in 'X' direction and daylight control in 'Y' direction is possible



ORDER CODES

DALI Hub

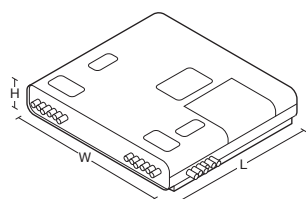
DALI Addressable Hub

CFLDALIHUB

Command Fast Link

See pages 202 to 207 for a listing of the range of leads and detectors to complete a full Command Fast link plug and play installation. A design service is available, please contact the Whitecroft office for further details.

DIMENSIONS

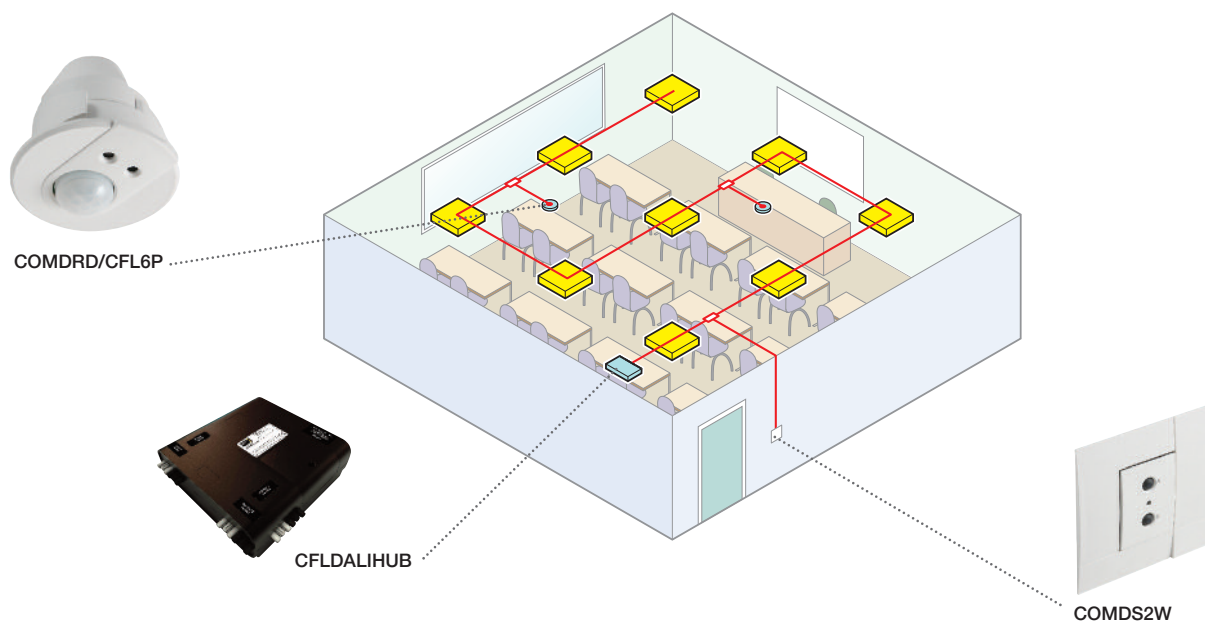


L	W	H
220	220	70

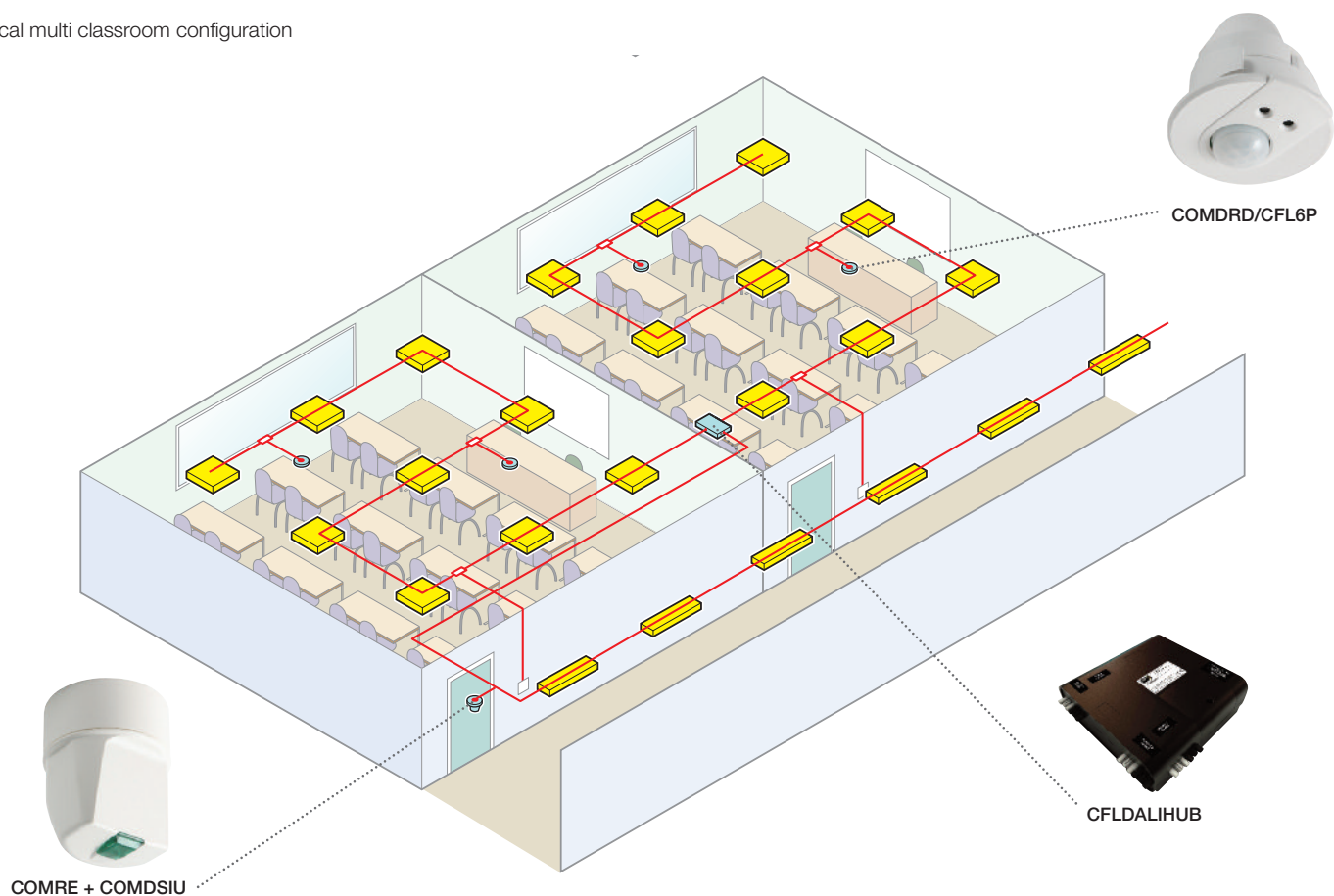
TO SPECIFY

DALI Hub with integrated power supply for connection of up to 63 luminaires via 3 separate GST18/6 outputs – as Whitecroft Lighting CFLDALIHUB

Typical single classroom configuration



Typical multi classroom configuration



DALI router

> weblink > **COMD2CR**

To further expand the flexibility of a DALI lighting control system, a 2 channel router is available. This gives the opportunity to address up to 128 devices from one router and is scalable to meet the needs of the largest installation as multiple routers can be networked.

128 ADDRESSES

- The DALI Router can address 64 devices on each of 2 channels, giving a wider range than an individual hub

SCALABLE

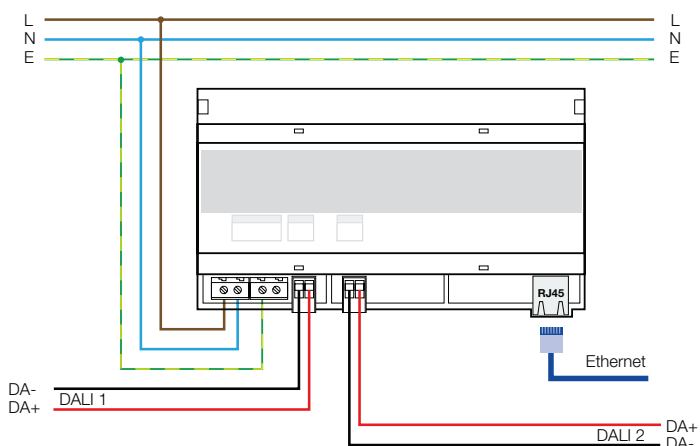
- DALI Routers can be linked together by Ethernet cable
- There is no limit to the number of routers used in a single installation, making the system infinitely scalable
- Each router can be assigned an IP address and can be linked into an existing computer network

BUILDING -WIDE FLEXIBILITY

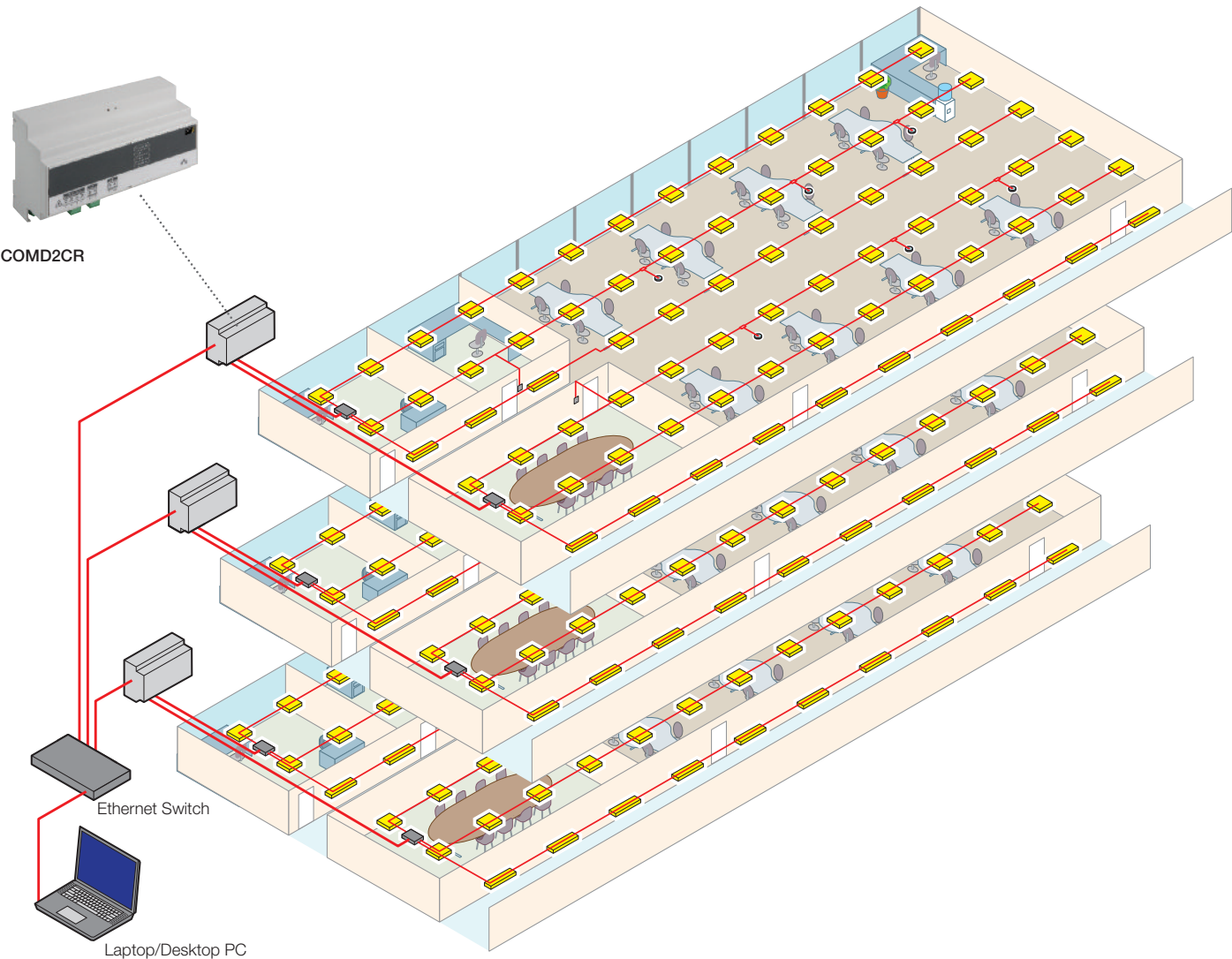
- Each room can be configured independently for the requirements of the space, from simple PIR functionality for storage areas to complex scene-setting for meeting areas.
- Daylight harvesting can reduce energy consumption in open plan or cellular office environments
- Programming can be from a single point with PC-based software configuration. This can even be achieved remotely.



CONNECTIONS



Typical multi floor and room configuration



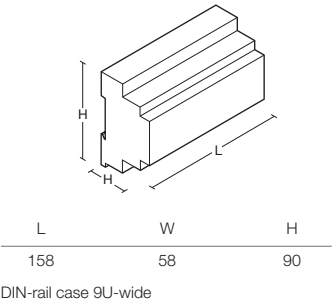
ORDER CODES

DALI Router

DALI Router

COMD2CR

DIMENSIONS



TO SPECIFY

DALI Router with 2 off 250mA channels.
Din rail mounting and ethernet port for
networking – as Whitecroft Lighting
COMD2CR

modular switch panels

> weblink > COMDS

Modular switch panels are fully DALI compatible range of user interfaces that allow basic adjustments to the system as well as scene setting.

- Indicator LED and an infrared receiver
- Out of box operation
- Designed to fit both DIN and UK standard back boxes
- DALI power consumption 10mA

ORDER CODES

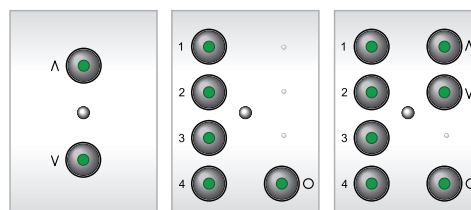
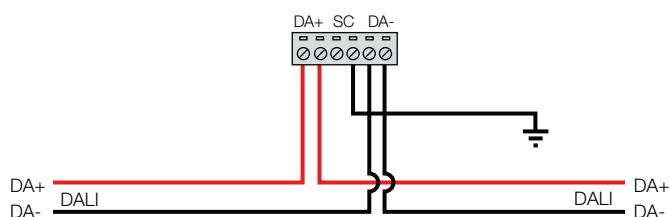
Modular Switch Panels

2 Button – On/Off, Raise/Lower – White	COMDS2W
5 Button – On/Off, 4 Scenes – White	COMDS5W
7 Button – On/Off, Raise/Lower, 4 Scenes – White	COMDS7W
2 Button – On/Off, Raise/Lower – Brushed Stainless Steel	COMDS2S
5 Button – On/Off, 4 Scenes – Brushed Stainless Steel	COMDS5S
7 Button – On/Off, Raise/Lower, 4 Scenes – Brushed Stainless Steel	COMDS7S



COMDS2W White/Brushed Stainless Steel

CONNECTIONS



Standard Modules

hand held controller

> weblink > COMDSSC

The Infrared Remote is a handheld unit that can be used to control basic system functions such as on/off, raising and lowering the general light level and the selection of four scenes.

- On/Off button
- Raise/Lower buttons
- Four scene recall buttons

ORDER CODES

Hand Held Controller

DALI hand Held Controller	COMDSSC
---------------------------	----------------



DALI addressable PIR detector/photocell

> weblink > **COMDRD**

The Multisensor is a compact unit containing the necessary sensors to provide energy saving functions. It has constant light sensor, a passive infra-red detector (PIR) and an infra-red receiver for the Infrared Remote.

- Designed to push fit into a ceiling or luminaire housing.
- Programmable constant light
- Presence detection
- Control using the hand held remote.
- Switch-Control input
- DALI power consumption 15mA



ORDER CODES

DALI Addressable PIR/Photocell detector

Recessed Mounting

COMDRD

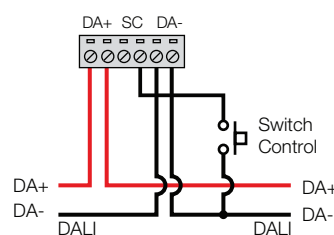
Optional Command Fast Link connector

CFL 3 POLE

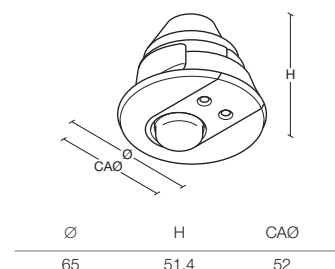
Add suffix /CFL3P to order code

i.e. COMDRD/CFL3P

CONNECTIONS



DIMENSIONS



DALI switch input unit

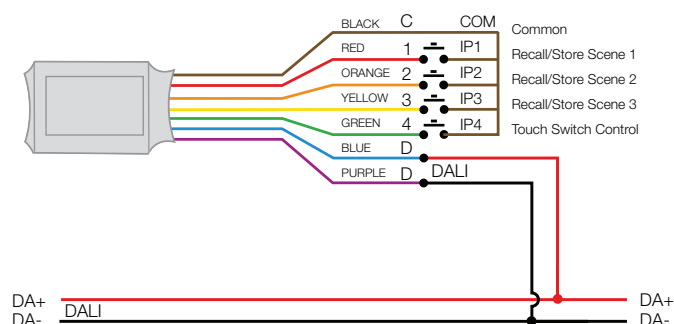
> weblink > **COMDSIU**

Switch Input Unit is designed to allow customer specified switches, sensors, time clocks or other on/off control devices to be incorporated into a Whitecroft DALI lighting control system. The Switch input Unit is suitable for inclusion into all standard size back boxes together with a suitable mains rated switch.

- Touch dimming with a momentary push switch
- Can be used with momentary or latching switches
- Can be used with COMRE or COMRG for switching with microwave detector
- DALI power consumption 10mA



CONNECTIONS



ORDER CODES

DALI Switch Input Unit

DALI Switch Input Unit

COMDSIU

DALI power supply

> weblink > **COMDPSU**

Fully DALI compatible Power Supply Unit, designed to provide the required supply of up to 250 mA. Unit is DIN-rail mounted.

- Status LED
- DALI short circuit and over temperature protected

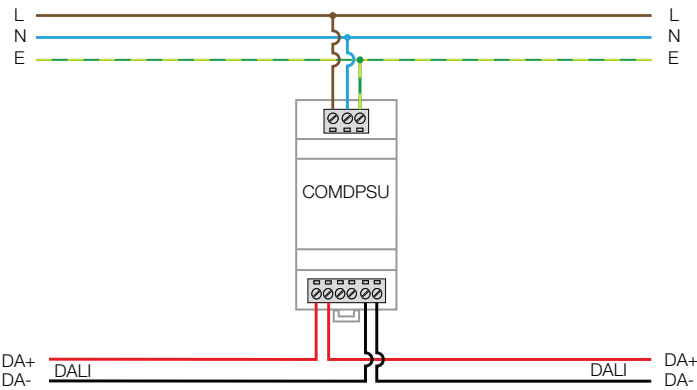


ORDER CODES

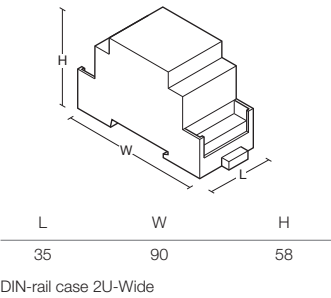
DALI Power Supply

DALI Power Supply COMDPSU

CONNECTIONS



DIMENSIONS



LCD touch screen

> weblink > **COMDT**

The TouchPanel is a 3.5" touch sensitive 65,000 colour LCD screen that can be used for controlling and programming a Whitecroft lighting control system.

- Built-in astronomic real time clock.
- Automatic scene changing (Sequences and cycles)
- Integral infrared receiver
- Customisable graphics and user language selection
- Requires double gang UK back box
- Can only be used on a DALI Router Controlled System



ORDER CODES

LCD Touch Screen

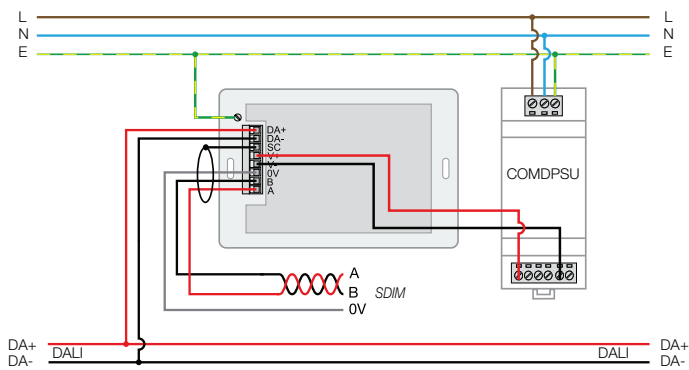
LCD Touch Screen – White	COMDTW
LCD Touch Screen – Brushed Stainless Steel	COMDTS

Options

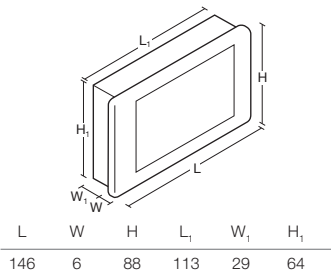
DALI Power Supply	COMDPSU
-------------------	---------

Note – The touch screen needs its own dedicated power supply unit.
Please add COMDPSU for each unit.

CONNECTIONS



DIMENSIONS



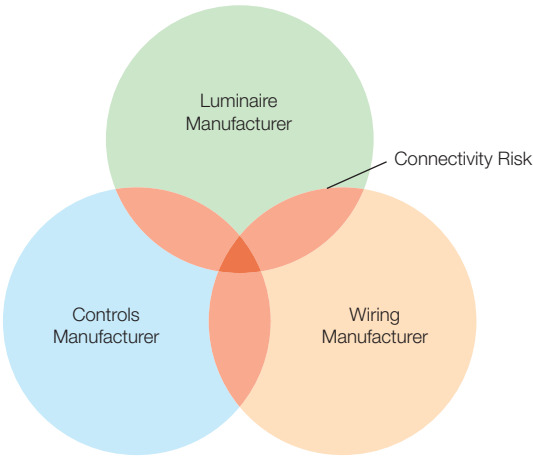
*Requires Double Gang UK back box
(provided in the package)

command fast link

> weblink > CFL

KEEPING INSTALLATION SIMPLE

With Command Fast Link from Whitecroft Lighting, installation of any lighting scheme is significantly simplified. As a lighting scheme is designed, connectivity can be pre-planned and a complete package of luminaires, controls and wiring ready to install is delivered to site. Not only does this reduce installation time, but eliminates both costly down time and the risk associated with traditional multi-party specifications. These systems are factory tested and guaranteed to be fault free.



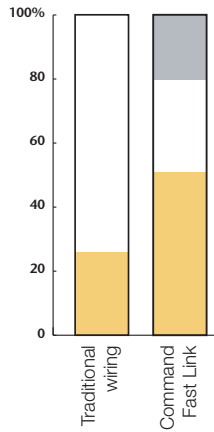
In any specification, the areas where different suppliers overlap creates a connectivity risk which can be time consuming and costly to solve on site.

ADDING FLEXIBILITY TO THE WORKSPACE

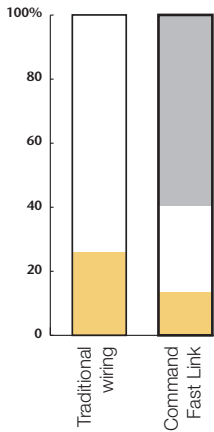
Command Fast Link brings savings to any installation. Whilst material costs increase, on-site labour cost is significantly reduced which can result in an overall saving of around 20%.

However, the benefits of Command Fast Link do not end at installation. In any modern office environment, flexibility is key to the success of the building. As the demands on the space change, lighting and controls need to be easily and quickly re-configured to adapt to the new requirements. Command Fast Link allows the contractor to simply re-configure switching arrangements without the need for costly re-wiring.

Cost comparison - Initial Installation



Cost comparison - Re-configuration



Legend: Labour Cost Material Cost Potential Saving

INSTALLATION TIME COMPARISON

	Traditional Installation Time	Command Fast Link Installation Time
Luminaire	30 mins	12 mins
Control Devices	40 mins	12 mins
Manual Switch	40 mins	20 mins
Emergency Key Switch	40 mins	20 mins

If we assume that a typical installation comprises 100 luminaires, with 10 control devices, 4 switches and 4 emergency key switches, then the installation will take around 63 man hours when wired conventionally. With Command Fast Link, this installation time is reduced to around 25 hours. Furthermore, because of Command Fast Link's plug and play connectivity, less skilled labour is required to successfully install a project.

command fast link

> weblink > CFL

COMMAND FAST LINK CONNECTORS

There are 6 basic elements in the Command Fast Link system which are available in both 4 and 6 core configurations. These can be combined to cater for any wiring need and are designed to allow fast, error free connection.

All plugs are mechanically keyed for easy connectivity and to prevent installation errors. Plugs are also self-locking to prevent accidental disconnection. Components are type tested to EN1313.

LSF 1.5mm² stranded cable is used throughout the system and is type tested to EN50267.

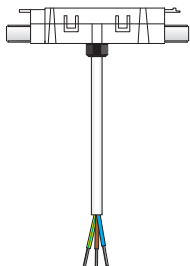
Once assembled the whole installation is factory tested for connectivity and clearly labelled. In full compliance with EN7671.



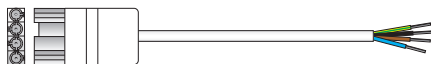
Starter Lead for connection to building power distribution



Extender to link luminaires and switch modules



Switch Module with in-line connection for wall switch



Flying Lead to link luminaires to T piece
These can be supplied pre-wired to luminaires



T Piece to connect luminaires and detectors to extender

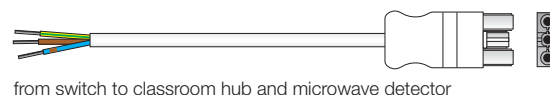
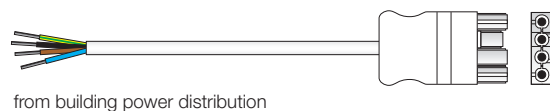
starter and one-switch leads

> weblink > **CFL**

ORDER CODES

Unit	Colour	
4m Starter Lead	White	CFL/ST/4P/4M
4m Starter Lead	White	CFL/ST/6P/4M
with 4/6 Pole GST Female connector to free end		
4m DALI Starter Lead	Black/Grey	CFL/DAL/ST/6P/4M
with 6 Pole GST Female connector to free end		

Unit	Colour	
6m Switch Lead	White	CFL/SD/3P/6M
12m Switch Lead	White	CFL/SD/3P/12M
with 3 Pole GST Female connector to free end		



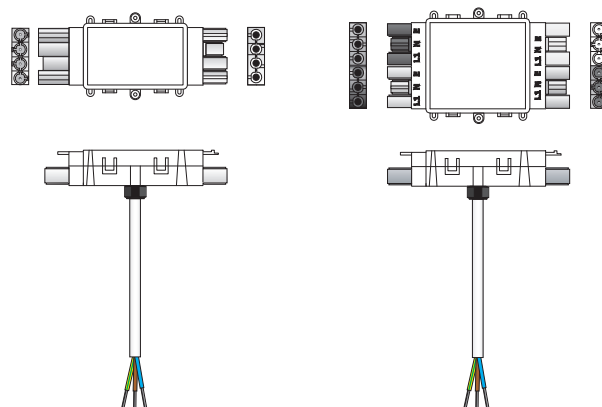
switch modules

> weblink > **CFL**

ORDER CODES

Unit	Colour	
4 Pole Switch Module	White	CFL/SLM/4P
4 Pole Emergency Key Switch Module	White	CFL/SLME/4P
Male to Female GST 4 pole in-line connector, 4 metre 3 core cable to free end		

Unit	Colour	
6 Pole Switch Module	Black/Grey	CFL/SLM/6P
6 Pole Emergency Key Switch Module	Black/Grey	CFL/SLME/6P
Male to Female GST 6 pole in-line connector, 4 metre 3 core cable to free end		
6 Pole DALI Switch Module	Black/Grey	CFL/DAL/SLM/6P/4M
Male to Female GST 6 pole in-line connector, 4 metre 3 core cable to free end		



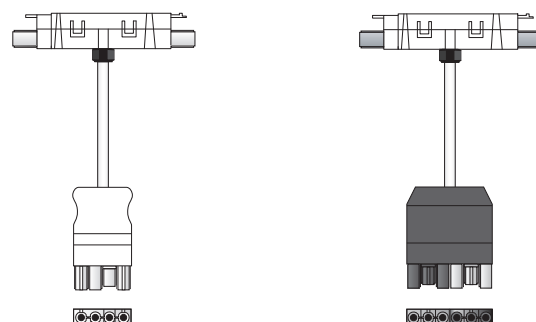
detector modules

> weblink > **CFL**

ORDER CODES

Unit	Colour	
4 Pole Detector Module	White	CFL/DM/4P
Male to Female GST 4 pole in-line connector, 0.5 metre to Female GST 4 pole connector		

Unit	Colour	
6 Pole Dimming Detector Module	Black/Grey	CFL/DDM/6P
Male to Female GST 6 pole in-line connector, 0.5 metre to Female GST 6 pole connector		
6 Pole DALI Detector Module	Black/Grey	CFL/DAL/DM/6P
Male to Female GST 6 pole in-line connector, 0.5 metre to Female GST 3 pole connector		

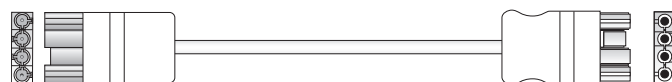


4 pole extenders

> weblink > CFL

ORDER CODES

Unit	Colour	
1m Lighting Extender Lead	White	CFL/EX/4P/1M
3m Lighting Extender Lead	White	CFL/EX/4P/3M
5m Lighting Extender Lead	White	CFL/EX/4P/5M
7m Lighting Extender Lead	White	CFL/EX/4P/7M
9m Lighting Extender Lead	White	CFL/EX/4P/9M
4 Pole – 4 Core Male to Female GST connectors		



6 pole extenders

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ORDER CODES

Unit	Colour	
1m Lighting Extender Lead	Black/Grey	CFL/EX/6P/1M
3m Lighting Extender Lead	Black/Grey	CFL/EX/6P/3M
5m Lighting Extender Lead	Black/Grey	CFL/EX/6P/5M
7m Lighting Extender Lead	Black/Grey	CFL/EX/6P/7M
9m Lighting Extender Lead	Black/Grey	CFL/EX/6P/9M
6 Pole – 6 Core Male to Female GST connectors		

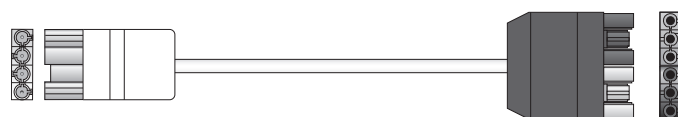


4 to 6 pole converters

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ORDER CODES

Unit	Colour	
3m 4 to 6 Pole Converter	White/Black/Grey	CFL/EX/4-6P/3M
6m 4 to 6 Pole Converter	White/Black/Grey	CFL/EX/4-6P/6M
4 Pole Male to 6 Pole Female GST connectors		



6 to 4 pole converters

> weblink > CFL

ORDER CODES

Unit	Colour	
3m 6 to 4 Pole Converter	White/Black/Grey	CFL/EX/6-4P/3M
6m 6 to 4 Pole Converter	White/Black/Grey	CFL/EX/6-4P/6M
6 Pole Male to 4 Pole Female GST connectors		



4 pole flying leads

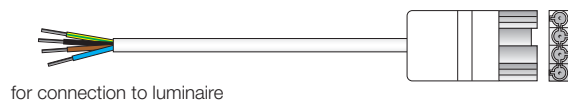
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ORDER CODES

Unit	Colour	
0.3m Flying Lead	White	CFL/FL/4P/4C/0.3M
3m Flying Lead	White	CFL/FL/4P/4C/3M
5m Flying Lead	White	CFL/FL/4P/4C/5M
Male GST to Free end 4 Pole 4 Core		

Unit	Colour	
0.3m Flying Lead	White	CFL/FL/4P/3C/0.3M
3m Flying Lead	White	CFL/FL/4P/3C/3M
5m Flying Lead	White	CFL/FL/4P/3C/5M
Male GST to Free end 4 Pole 3 Core		

NOTE: To pre-wire these leads to Whitecroft luminaires please contact the sales office for references.



6 pole flying leads

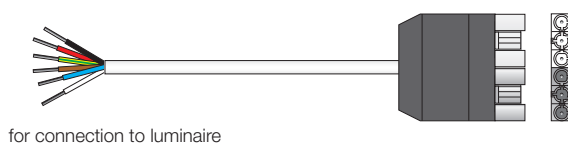
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ORDER CODES

Unit	Colour	
3m Flying Lead	Black/Grey	CFL/FL/6P/6C/3M
5m Flying Lead	Black/Grey	CFL/FL/6P/6C/5M
Male GST to Free end 6 Pole 6 Core		

Unit	Colour	
3m Flying Lead	Black/Grey	CFL/FL/6P/5C/3M
5m Flying Lead	Black/Grey	CFL/FL/6P/5C/5M
Male GST to Free end 6 Pole 5 Core		

NOTE: To pre-wire these leads to Whitecroft luminaires please contact the sales office for references.



T piece

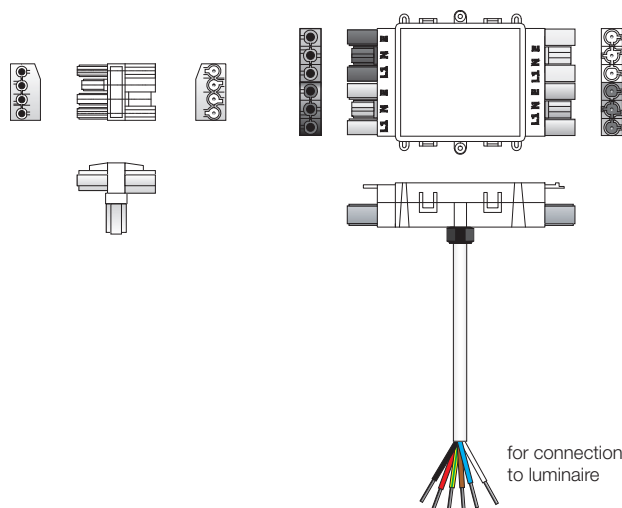
> weblink > CFL

ORDER CODES

Unit	Colour	
T Piece	White	CFL/4T
4 Pole molded T Piece, 1 in 2 out		

Unit	Colour	
T Piece	Black/Grey	CFL/6T/3C/0.3M
T Piece	Black/Grey	CFL/6T/4C/0.3M
T Piece	Black/Grey	CFL/6T/5C/0.3M
T Piece	Black/Grey	CFL/6T/6C/0.3M
6 Pole GST T Piece, 0.3m Lead (3, 4, 5 or 6 Core)		

NOTE: To pre-wire these leads to Whitecroft luminaires please contact the sales office for references.



modular installation pack - CFL packs

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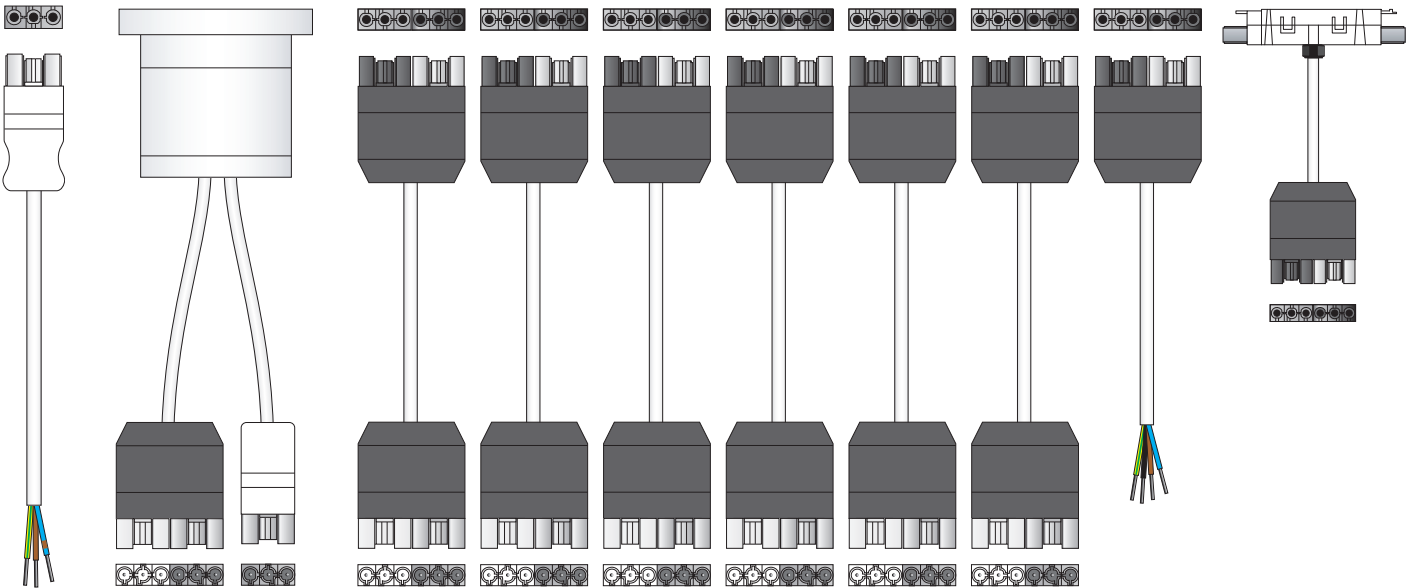
ORDER CODES

Modular Installation Pack For Complete Classroom

Installation Pack Suitable For 6 Luminaires Including Leads And Sensor	CFLP6
Installation Pack Suitable For 9 Luminaires Including Leads And Sensor	CFLP9
Installation Pack Suitable For 12 Luminaires Including Leads And Sensor	CFLP12
Installation Pack Suitable For 15 Luminaires Including Leads And Sensor	CFLP15

Lead Extension Pack

3 x 5m long GST18/6 Male To Female Interconnecting Lead For Luminaires	CFLP3L5M
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Example components from CFLP6 Installation Pack suitable for 6 luminaires

TO SPECIFY

Installation pack containing items necessary to install 6, 9, 12 or 15 luminaires in a classroom. Includes daylight and presence/absence detecting sensor, and interconnecting leads in a single box - as per Whitecroft CFL Pack