

Metway Connection Centre

MCC10B (G)
MCC8B (G)



Installation Instructions.

WARNING 230V a.c.

The connections of this equipment should be made by a suitably qualified person in accordance with the current wiring regulations.

It is strongly recommended to use Metway latching connectors.

Use G suffix for black/grey connectors and B suffix for black/blue connectors when ordering.

The Metway Connection Centre provides a simple way to integrate presence detectors and luminaires using industry standard connectors. Up to 2 detectors can be connected to up to 10 luminaires dependant on the control philosophy required.

Electrical Connections

Screw terminations are provided in the wiring aperture underneath the cover for power supply connections and external dimming applications. Override switches may also be connected here in order to provide switched live connections to the luminaires or presence detector override connections.

Appropriate means of supply disconnection and overcurrent protection should be provided by the installation. Please refer to wiring diagrams overleaf for further information.

The cover of the wiring aperture is removed by inserting the blade of a flat screwdriver into the catch and applying light pressure on the handle towards the output connectors on the MCC while lifting the outside edge of the cover.

The cable entries for 20mm conduit, bushes or glands are semi-pierced in the end wall of the wiring aperture and can be knocked out carefully using a flat bladed screw driver and small hammer. Alternatively these can be removed with a 20mm hole saw.

A cable gland must be used to provide a strain relief if the cabling is not routed into the MCC via conduit or trunking.

Fixing

The MCC should be sited on a flat, smooth surface using the 2no fixing flanges located at the end of the MCC and the 2no fixing holes located in the wiring aperture.

It is not advised that the MCC is fixed using rod suspensions although this can be done as long as the fixing is substantial enough to withstand the action of plugging and unplugging the connectors without damage to the MCC housing and also ensuring latching is engaged.

Factory configuration

When the unit is supplied from the factory, the dimming control and switch lives are linked in the terminations in the wiring aperture. **LK2** and **LK3** MUST BE REMOVED if 2 detectors with dimming outputs are connected to the MCC.

Connections are made to the terminal strip connector as highlighted in figure 2. There are 2no live input terminals for looping of live feeds to a switch position. This allows for direct wiring of the supply cable to the MCC. Please refer overleaf for connection diagrams.

Live (L/IN) is routed to the 2no detector inputs (D1 and D2)

Maintained Live (ML) is routed to the 10 (if MCC10) or 8 (if MCC8) luminaire outputs. If no separate maintained live is required a link will need to be fitted between M/L and L/In terminal.

SWA is the switched live output from a detector connected to D1.

SWB is the switched live output from a detector connected to D2.

LK1 is the link connection between the switched live from each detector input. It must be removed to split the luminaires into 2 groups.

The dimming control signal from each detector to its group of luminaires is via the PIR inputs (D1 or D2). Alternatively connections can be made via the dimming channel screw terminations in the wiring aperture. (A+ A- or B+ B-) links are factory fitted to allow for single channel dimming (all outputs off 1 dimming detector/ input). If 2no dimming detectors are to be connected to the MCC **LK2** and **LK3** need to be removed.

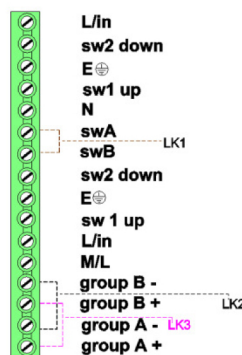


Figure 2

Technical data

OPERATING VOTAGE: 230V 50Hz (UK & Europe)
PRODUCT RATING: 12 Amps *
RECOMMENDED CIRCUIT PROTECTION: 10 Amps
MAXIMUM LOAD PER OUTPUT: 6 Amps *
MAXIMUM TOTAL LOAD: 12 Amps *
SUPPLY TERMINAL CAPACITY: 4.00mm² (2 X 1.50mm²)
DIMMING TERMINAL CAPACITY: 4.00mm² (2 X 1.50mm²)
CASE MATERIAL: POLYCARBONATE V0
CASE FINISH: LIGHTLY SPARKED, BLACK.

*** Note: These specifications refer to the MCC being used as simple wiring device without presence detectors. When using mains switching presence detectors it is the presence detector that dictates the maximum load. It is imperative that the total load connected to an MCC does not exceed that of the presence detector connected. Please check the specification of the connected detector and do not exceed its maximum load (typically 6 Amps)**

CE

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Detector connection

There are 2 detector connections on each box. The detector is connected by a pre-wired lead and 166G type plug. These are available in either black/grey or black/blue options.

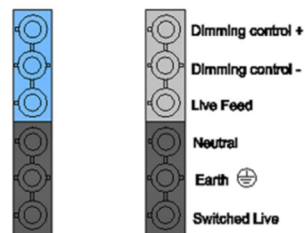


Figure 2

Luminaire connection

There are either 8 or 10 luminaire outputs on each box. The luminaire is connected by a pre-wired lead and 166G type plug. These are available in either black/grey or black/blue options.

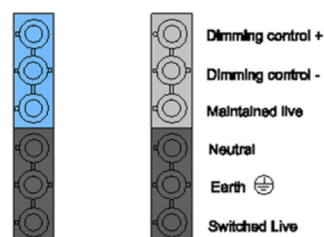
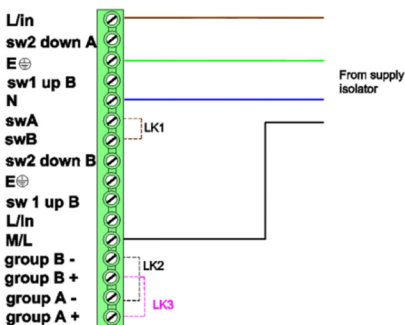


Figure 3

Connection examples

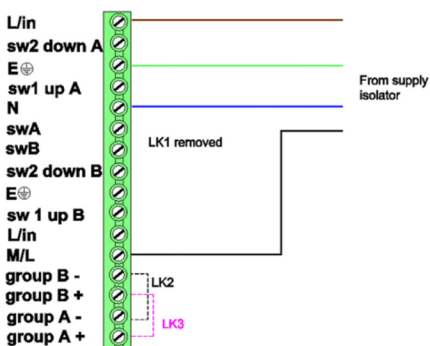
Example 1

Single detector with 8 or 10 luminaires



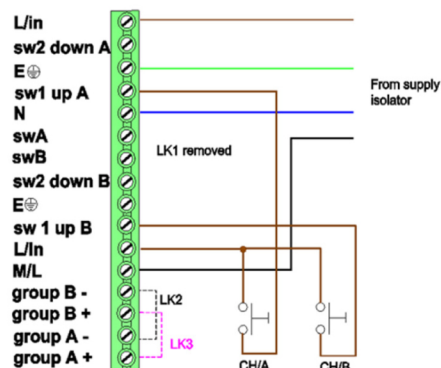
Example 2

2 detectors with 8 or 10 luminaires and 2 separate channels.



Example 3

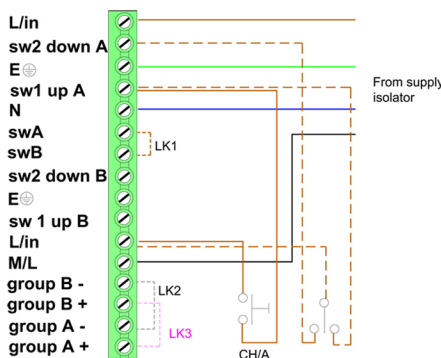
2 detectors with 8 or 10 luminaires and absence switches - 2 separate channels.



For single channel absence switching leave link LK1 connected and connect the detector to either DA or DB and wire switch accordingly as shown in **Example 3** (i.e. DA = sw1 A up or DB = sw2 B up)

Example 4

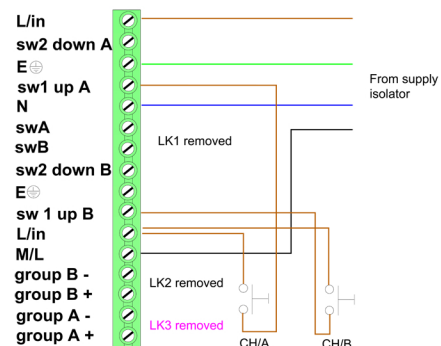
1 dimming detector with 8 or 10 luminaires and absence switch



If a centre biased (3 position) push to make retractive switch is required **instead** of a momentary mains rated push to make switch wire sw1 up A to switch position as shown in dashed lines. This type of switch would be required if absence switching both dimmable and non-dimmable luminaires. **It is important to note that in this scenario the feed to the dimmable ballast would be also switched via the relay in the Metway presence detector.**

Example 5

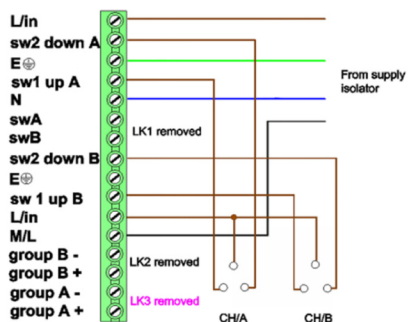
2 dimming detectors with 8 or 10 luminaires and absence switches (momentary push to make) 2 separate channels.



If 2 no dimming detectors are required (2 channel dimming) then remove link L1, link L2 and link L3. If absence is required with momentary mains rated push to make switches wire as **Example 5**

Example 6

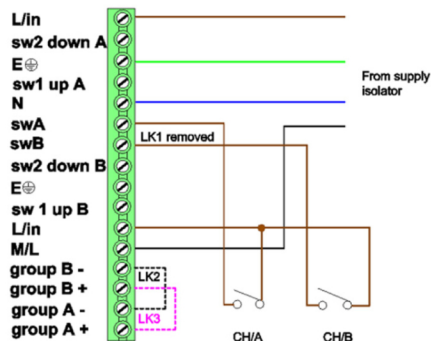
2 dimming detectors with 8 or 10 luminaires and absence switches (centre biased retractive switches) 2 separate channels.



If 2 no dimming detectors are required (2 channel dimming) then remove link LK1, link LK2 and link LK3. If absence is required with centre biased mains rated push to make switches wire as **Example 6**. Centre biased retractive switches would need to be used if absence switching both dimmable and non-dimmable luminaires. **It is important to note that in this scenario the feed to the dimmable ballast would be also switched via the relay in the Metway presence detector. Part code for detector must have SW suffix.**

Example 7

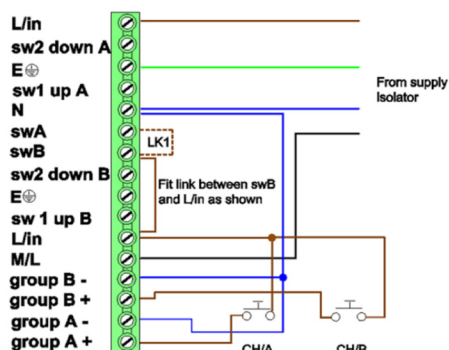
2 hardwired switches for dual channel switching.



If the MCC is used as a simple mains wiring device and utilising dual channel switching from standard latching switches then wire as **Example 7**. For single channel switching do not remove link LK1 and wire switch to either swA or swB

Example 8

2 hardwired switches for dual channel Switch Dim.



For using mains based Switch Dim or Touch Dim ballasts wire mains rated momentary push to make switches as **Example 8**. Note that links LK2 and LK3 need to be removed and a link fitted between the Neutral terminal dimming terminals Group A- and B-. A link also needs to be fitted between the L/in supply terminal and the swB terminal as shown (this applies a permanent live feed to the DSI/DALI ballasts). For single channel mains based Switch or Touch Dim ballasts links LK2 and LK3 need to remain with just a single switch wired as shown in **Example 8**.

Important notes

- 1) Dimming control connections are mains rated
- 2) Mains based dimming must not be used in conjunction with Metway's range of presence detectors
- 3) The MCC unit is a single phase unit only and must not be used with multiphase connections
- 4) Metway's range of communicating detectors can be connected to the MCC, this is a project configured service. Please contact Metway Wiring Systems technical support for options.

MCC presence detectors

All Metway PIR and microwave detectors include a photocell the factory default setting for which is disabled. All PIR's listed below have a 3m lead and latching 6 pole plug.

MCCPIR03P PIR c/w 3m lead (switching only)

MCCPIR03PAB PIR c/w 3m lead with absence (switching only)

MCCPIR03PDD PIR c/w 3m lead DSI/DALI ballasts

MCCPIR03PDDAB PIR c/w 3m lead with absence DSI/DALI ballasts

MCCMW603P mid range microwave detector c/w 3m lead (switching only)

MCCMW603PAB mid range microwave detector c/w 3m lead with absence (switching only)

MCCMW603PDD mid range microwave detector c/w 3m lead DSI/DALI ballasts

MCCMW603PDDAB mid range microwave detector c/w 3m lead with absence DSI/DALI ballasts

MCCMW303P long range microwave detector c/w 3m lead (switching only)

MCCMW303PAB long range microwave detector c/w 3m lead with absence (switching only)

MCCMW303PDD long range microwave detector c/w 3m lead for DSI/DALI ballasts

MCCMW303PDDAB long range microwave detector c/w 3m lead with absence DSI/DALI ballasts

CRPHS5 basic programming tool (not all parameters)

CRPHS full range programming tool

Auxiliary items

- MCC633 6 pole 3 core 3m luminaire lead 1.00mm LSOH
- MCC635 6 pole 3 core 5m luminaire lead 1.00mm LSOH
- MCC643 6 pole 4 core 3m luminaire lead 1.00mm LSOH
- MCC645 6 pole 4 core 5m luminaire lead 1.00mm LSOH
- MCC653 6 pole 5 core 3m luminaire lead 1.00mm LSOH
- MCC655 6 pole 5 core 5m luminaire lead 1.00mm LSOH
- MCC663 6 pole 6 core 3m luminaire lead 1.00mm LSOH
- MCC665 6 pole 6 core 5m luminaire lead 1.00mm LSOH
- MCC6P 6 pole connector and Metway latching cover

Use G suffix for black/grey connectors and B suffix for black/blue connectors when ordering.

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