Installation and Instruction Manual

HYTRONIK®

GST Type 6-Pole Quick Connection Box for Dimming Application

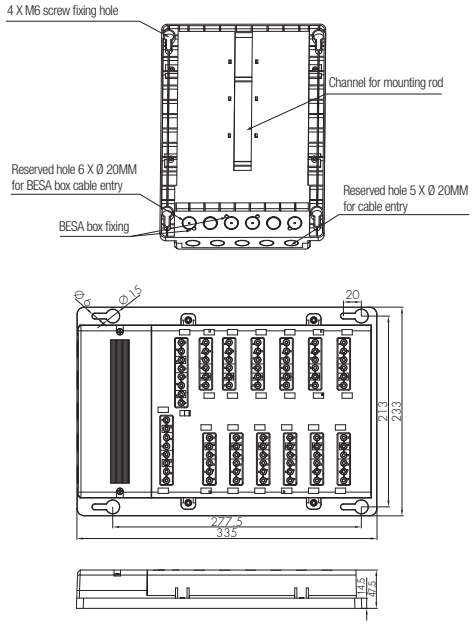
DALI or 0/1-10V output

QCB03/ECO

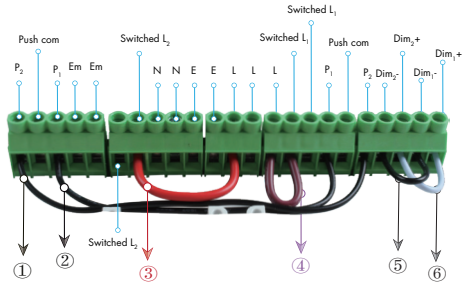
1. Technical Specifications

Mains voltage	220~240VAC 50/60Hz
Rated load	Rating of system 16A. Rating of each output 10A
Terminal capacity	0.75 - 4.0mm² (max. 2 x 2.5mm²)
Storage temperature	-20°C ~ +60°C
Max. relative humidity	20 ~ 90%
Insulation	Class II

2. Dimensions (mm)



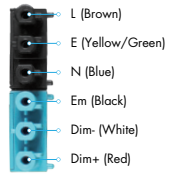
3. Input & Output Terminal Function



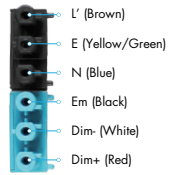
Wire Range: 0.75 - 4.0mm² (max. 2 x 2.5mm²)

Luminaire outlet

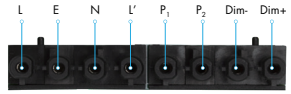
When using DALI dimming



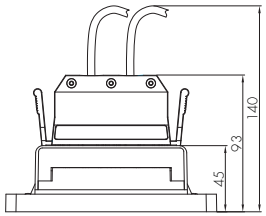
When using on/off switching or 0/1-10V dimming



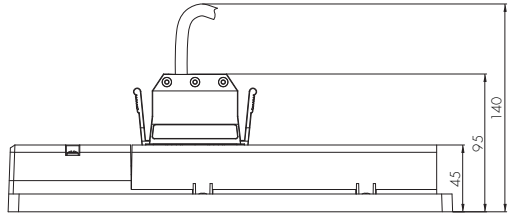
Sensor outlet



4. Plug Minimum Installation Height

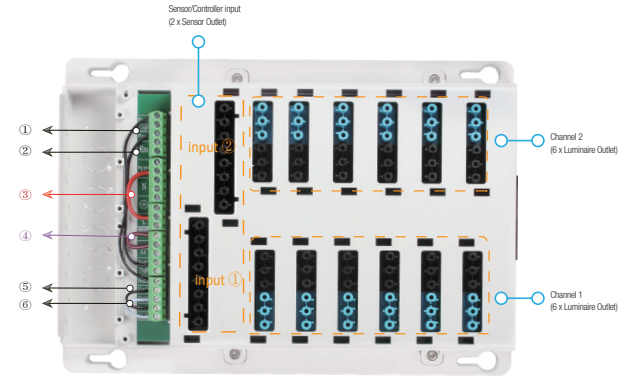


Sensor plug (HP06)



Luminaire plug (HP03)

Note: The minimum height for total height of unit is 140mm(including connectors and cables).



Factory default for QCB03/ECO comes with six pre-installed jumper wires. The wire ① short-connects Push 2, the wire ② short-connects Push 1, the wire ③ short-connects Switched L2 and L, the wire ④ short-connects Switched L1 and L tother, the wire ⑤ short-connects Dim2- and Dim1-, and the jumper wire ⑥ short-connects Dim2+ and Dim1+. With these jumper wires, user can freely choose different dimming control method and also freely switch between one-channel and two-channel control.

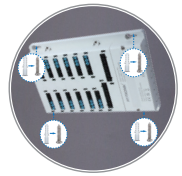
1) one-channel / one sensor (1 x 12) DALI dimming -- -- -- remain all jumper wires connected.
2) two-channel / two sensor (2 x 6) dual DALI dimming -- -- -- remain wire ③ & wire ④, remove wire ①, ②, ⑤ and ⑥.
   In this case the two channels will be controlled separately (channel 1 is controlled by Dim1+ & Dim1-, and channel 2 is controlled by Dim2- & Dim2+).
3) one-channel /one sensor (1 x 12) 0/1-10V dimming -- -- -- remove wire ④, remain the other jumper wires connected.
4) two-channel / two sensor (2 x 6) dual 0/1-10V dimming -- -- -- remove all jumper wires.
   In this case the two channels will be controlled separately (channel 1 is controlled by Switched L1, Dim1+ & Dim1-, and channel 2 is controlled by Switched L2, Dim2- & Dim2+).
5) two-channel / two sensor (2 x 6) DALI dimming + on/off switching -- -- -- remain wire ④, remove the other jumper wires.
   In this case the two channels will be controlled separately (channel 1 is controlled by Dim1+ & Dim1-, and channel 2 is controlled by Switched L2).
6) two-channel / one sensor (2 x 6) DALI dimming + on/off switching (eg. HBIR29/2CH)
   -- -- -- remain wire ③, ⑤, ⑥, remove the other jumper wires.
   In this case, the sensor need to be plugged into input 1. The two channels will be controlled separately (channel 1 is controlled by Dim1+ & Dim1-, and channel 2 is controlled by Switched L2).
7) two-channel / two sensor (2 x 6) DALI dimming + 0/1-10V dimming -- -- -- remain wire ④, remove the other jumper wires.
   In this case the two channels will be controlled separately. Channel 1 is controlled by DALI (Dim1+ & Dim1-), and channel 2 is controlled by (0/1--10V) Switched L2.

This flexible design aims to reduce model inventories for users, and just one box is capable enough to handle different dimming requirements on the project site. Easy for management, and powerful for usage!

5. Installation methods

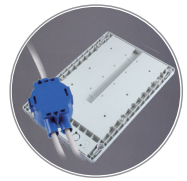
Surface Mount

It can work with 4 x M6 screws to fix onto both walls and ceilings.



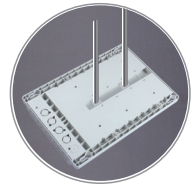
BESA/Junction Box Connection

It can be connected with BESA/junction box.



Channel Nut Mount

It can work with channel nuts to fasten into the back.

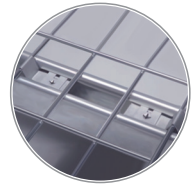


Mounting Rods

It can be fixed with mounting rods.

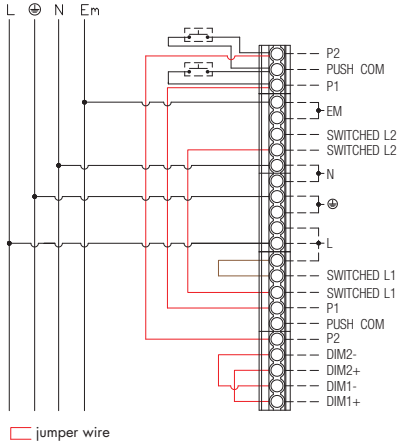
Marco Tray Mount

It can work with Marco clips steel wire cables tray system.



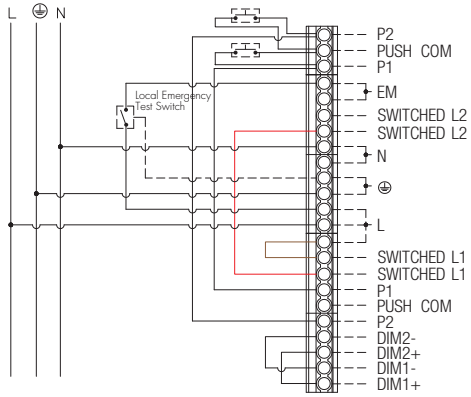
6. Wiring Diagram

Factory default setting with a pre-installed jumper wire One-channel (1x12) dimming control



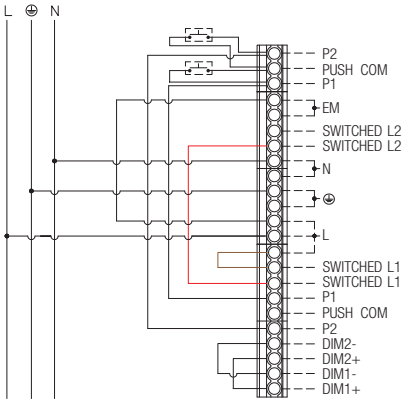
Note:
1. For two-channel (2x6) switching control please remove the jumper wire.
2. Do not wire across phases.

Local lighting switch and local emergency test switch



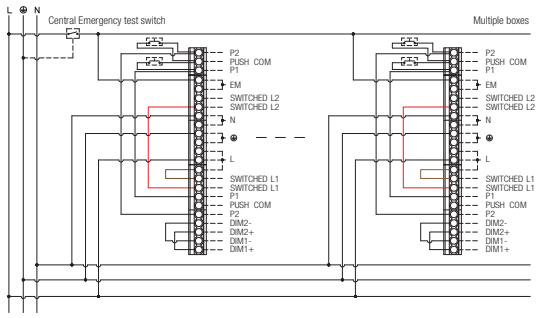
Note: Do not wire across phases.

Using Local lighting switch for power interruption



Note:
1. A local lighting switch may still be used when there is a central emergency test switch or when a circuit breaker is used to interrupt the power.
2. Do not wire across phases.

Emergency test using central switch



Note:
1. A local lighting switch may still be used when there is a central emergency test switch.
2. Do not wire across phases.

———This product should be installed by a qualified electrician.

7. Ceiling Rose/ Conduit Box Connection

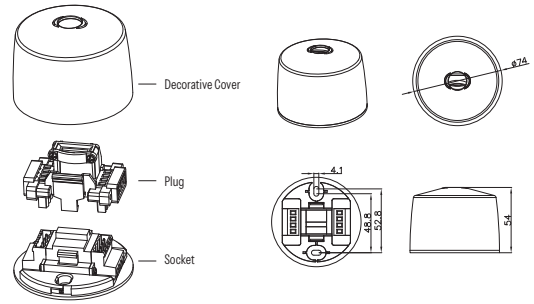
Description

Ceiling rose QCCR01 can be used when there is a need to take power from a conduit box. The installation-friendly design comes with a very spacious termination space for really easy wirings.

Key Features

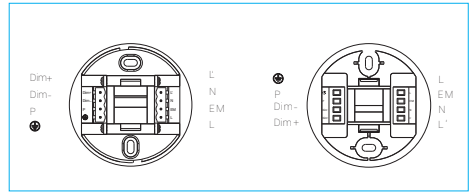
- Can be freely placed or fixed with BESA/junction box
- Taking power from BESA/junction box
- Allowing fast connection with quick connection box
- Double latch feature toprevent loose connections
- Manufactured in flameretardant material

Mechanical Structure & Dimensions （mm）

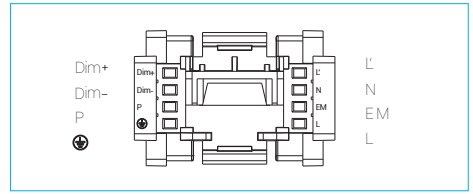


Input & Output Terminal Function

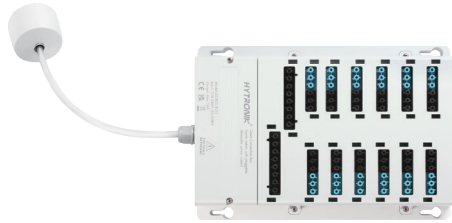
Terminal for Socket



Terminal for Plug



Connection to QCB03/ECO



8. Additional Information / Documents

1. To learn more about detailed product features/functions, please kindly refer to https://hytronik.com/products/qcb03/eco

2. Data sheet is subject to change without notice. Please always refer to the most recent release on https://hytronik.com/products/modular-wiring-systems

3. Regarding Hytronik standard guarantee policy, please kindly refer to https://hytronik.com/service/downloads （Guarantee Conditions document）