

GST type 6-pole Quick Connection Box

SCB03

DALI or 0/1-10V Dimming

HYTRONIK®

CE UK RoHS IP20

Product Description

Dual-circuit design for application with both essential & non-essential supplies. GST type 6-pole terminal base quick connection box for dimming application, with DALI or 0/1-10V output, 12 luminaire outlets and 2 sensor outlet. Freely switch between 1-channel and 2-channel control. Rating of system 16A, rating of each output 10A.



Hardware Features

- Dimmable control applications (DALI or 0/1-10V)
- Dual-circuit design for applications with both essential & non-essential supplies
- 12 luminaire outlets + 2 extra sensor outlet for sensor connection
- Luminaire outlet: GST type 6-pole terminal base (L or L', E, N, Em, Dim-, Dim+)
- Sensor outlet: GST type 8-pole terminal base (L, E, N, L', P1, P2, Dim-, Dim+)
- Black housing and white housing available to choose from
- Tamper-proof structure design
- Rating of system: Max 16A. Rating of each output: Max 10A
- Flame-retardant material for safety protection

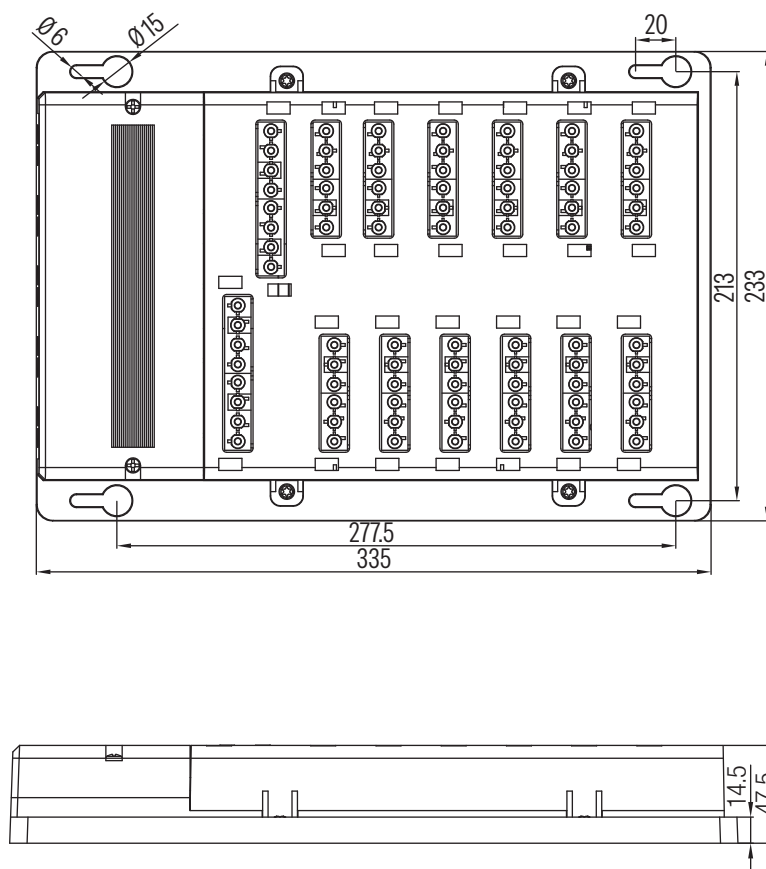
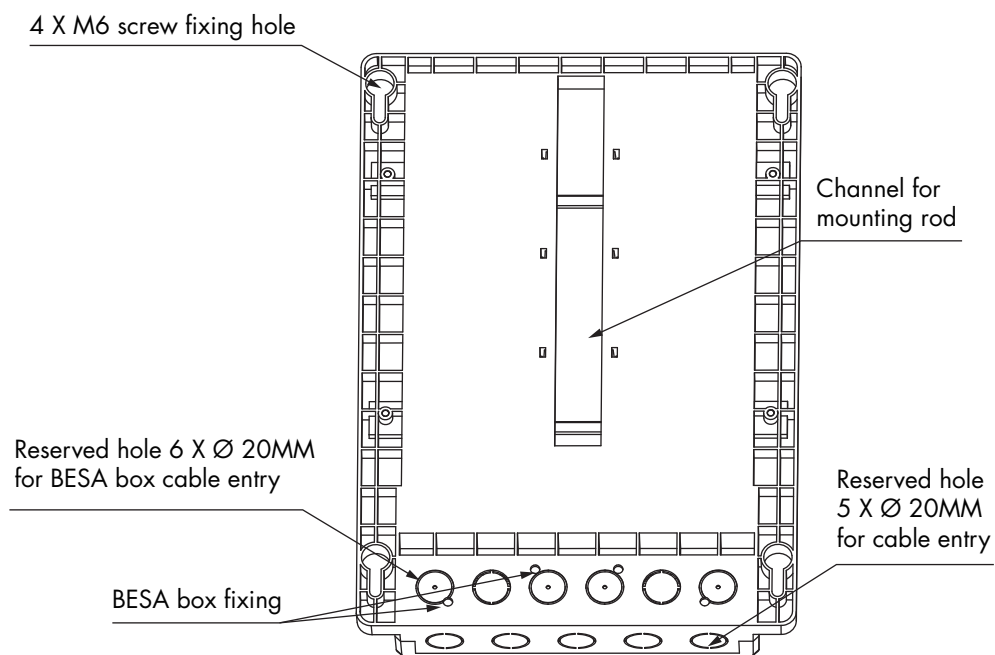
Your Benefits

- Five types of installation methods meets different project needs
- Reduce labour hours and labour cost significantly
- Simple and intuitive wiring connections
- Improved safety level during wiring operations
- Clear and clean wiring makes it easy for future maintenance
- Can be supplied with pre-wired cables

Technical Specifications

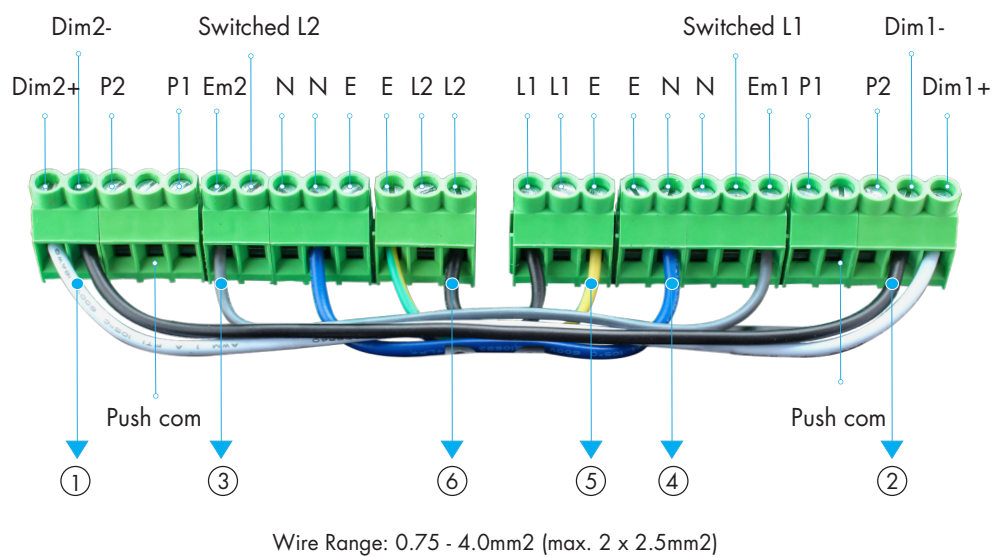
Mains voltage	220~240VAC 50/60Hz
Rated load	Rating of system 16A. Rating of each output 10A
Terminal capacity	0.75 - 4.0mm ² (max. 2 x 2.5mm ²)
Storage temperature	-20°C ~ +60°C
Max. relative humidity	20 ~ 90%
Insulation	Class II

Dimensions and Terminals(Unit: mm)

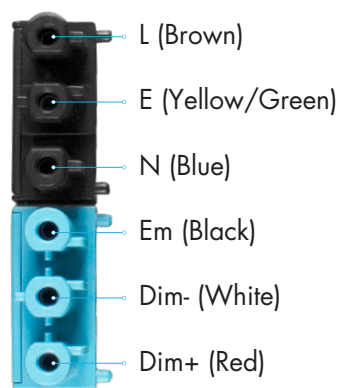


Input & Output Terminal Function

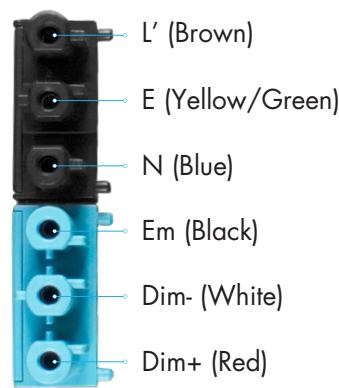
Input Terminal



Luminaire Outlet

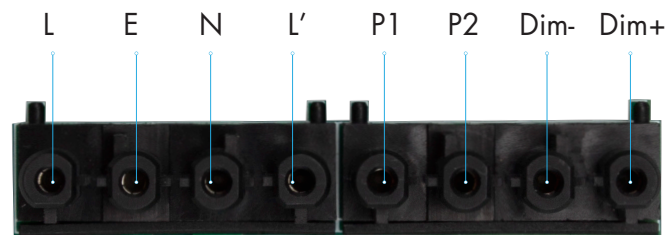


When using DALI dimming



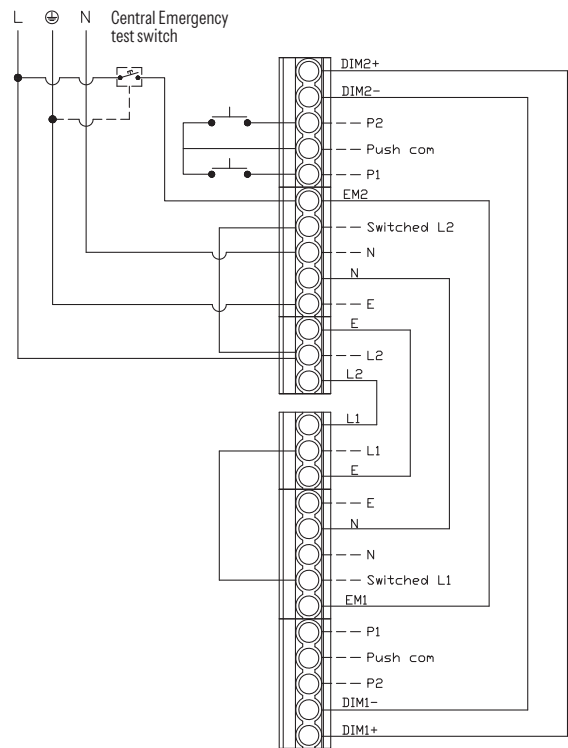
When using on/off switching or 0/1-10V dimming

Sensor Outlet

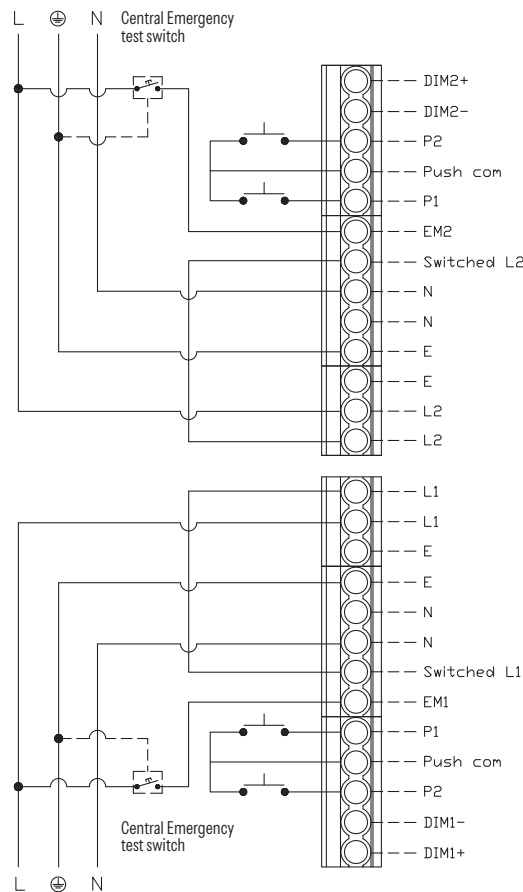


Wiring Diagram

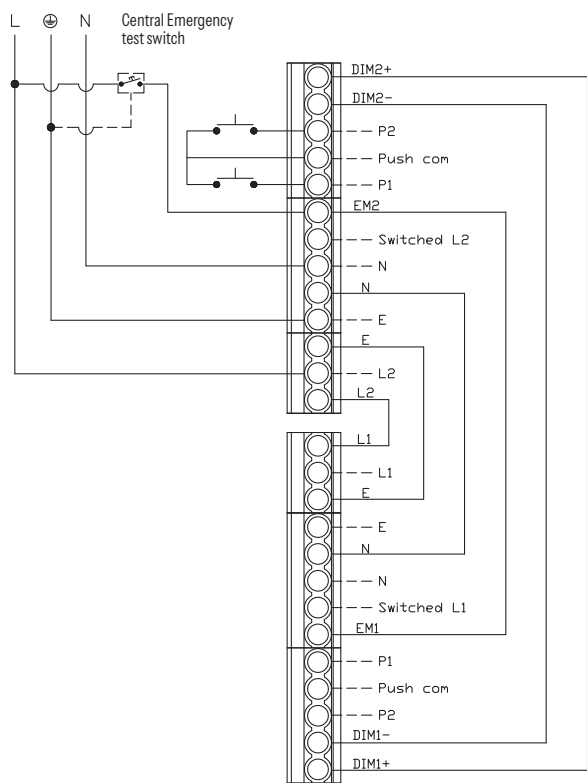
Single power supply input DALI dimming control



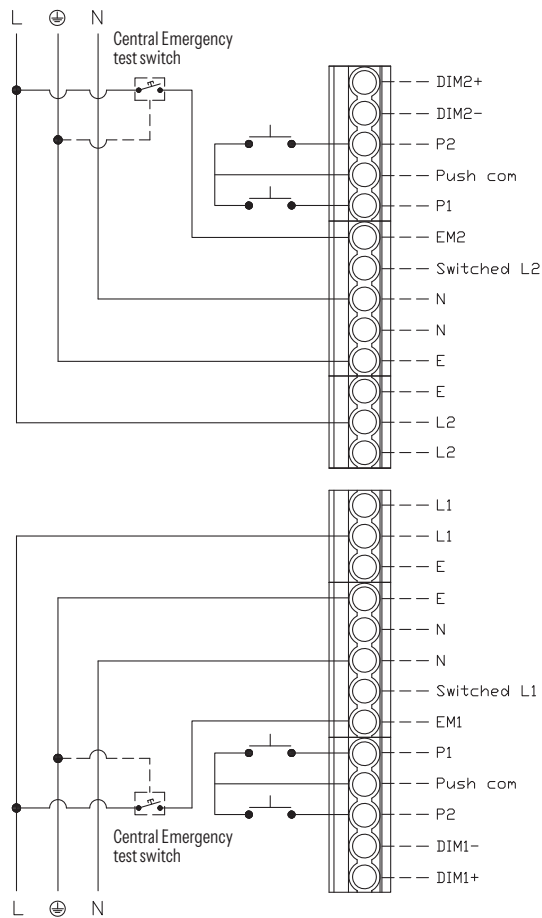
Dual power supply input DALI dimming control



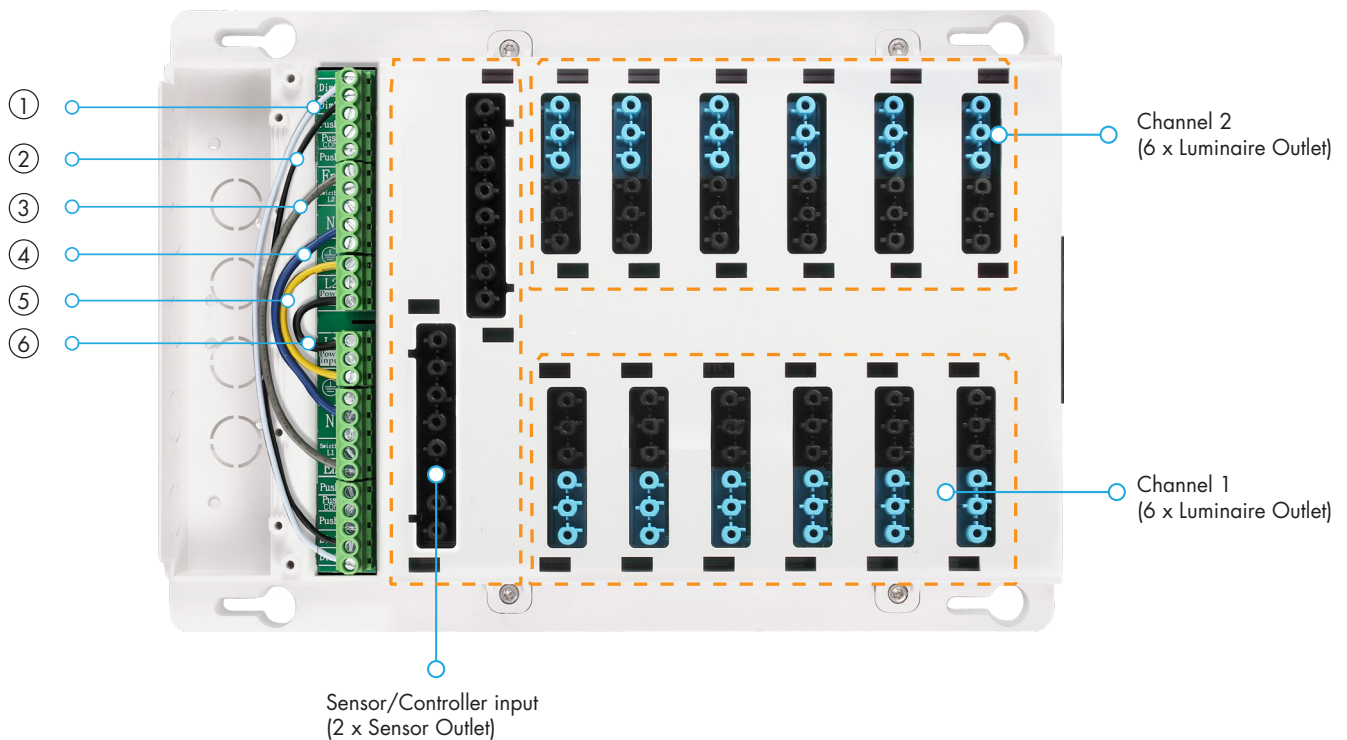
Single power supply input for 0/1-10V dimming control



Dual power supply input 0/1-10V dimming control



Functional Description



Factory default for SCB03 comes with 6 pre-installed jumper wires.

- The white jumper wire ① short-connects channel 1 Dim1+ and channel 2 Dim2+ together,
- The black jumper wire ② short-connects channel 1 Dim1- and channel 2 Dim2- together,
- The grey jumper wire ③ short-connects channel 1 EM1 and channel 2 EM2 together,
- The blue jumper wire ④ short-connects channel 1 N and channel 2 N together,
- The yellow and green ground jumper wire ⑤ short-connects channel 1 E and channel 2 E together,
- The black jumper wire ⑥ short-connects channel 1 L1 power input and channel 2 L2 power input.

* The SCB03 will be in the single circuit power supply mode by factory default, if the users want to switch to dual circuit and change relevant dimming method or sensor connecting, please refer to the follow instructions.

Single circuit power supply mode switches to dual circuit power supply mode

The SCB03 is in the single circuit power supply mode by factory default. But users can remove all the 6 pre-installed jumper wires to switch it to dual circuit power supply mode. The two dimming wires 1 and 2 can be left in if one DALI sensor is to control both circuits.

Dimming Method and Sensor Connecting

If it is in single circuit power supply mode:

1. Fixed Output

If both channel 1 luminaires and channel 2 luminaires are controlled by the same sensor, the user can plug the sensor into input 1 or input 2. A link wire between switched L1 and switched L2 needs to be installed.

If the 2 channels are controlled by 2 different sensors, plug 1 sensor into input 1 and 1 sensor into input 2.

2. DALI Dimming

If both channel 1 luminaires and channel 2 luminaires are controlled by the same DALI sensor, the user can plug the sensor into input 1 or input 2. Install the red and brown wires which can be found in the accessory plastic bag between L1 and switched L1 red wire and L2 and switched L2 brown wire. Ensure wires 1 and 2 remain connected.

If a push to make switch is required to work with the PIR, then the return switch wire needs to be connected to push 1 terminal if the PIR is in input 1 or push 2 terminal if the PIR is in input 2. This switch will operate both channels.

If the 2 channels are controlled by 2 different DALI sensors, plug 1 sensor into input 1 and 1 sensor into input 2. Install the brown and red wires as stated above but remove wires 1 and 2 to create individual DALI channels.

If 2 push to make switches are required to work with the PIRs, then the return switch wires need to be connected to push terminal 1 for PIR 1 and push terminal 2 for PIR 2. Ensure wires 1 and 2 are removed.

3. Switch Dim

If no sensors are used and a push to make switch is required to dim the DALI fittings then the return switch wire from the push to make switch needs to be connected to the input labelled switched L1. This will control 1 half of the box. If the switch is to control both channel 1 and channel 2 a link between switched L1 and switched L2 needs to be installed.

If it is in the dual circuit power supply mode:

Remove all 6 wires then it will be in dual circuit supply mode. Wires 1 and 2 can remain in when controlling the box with 1 DALI PIR.

1. Fixed Output

If the 2 channels are controlled by 2 different sensors, plug 1 sensor into input 1 and 1 sensor into input 2.

2. DALI Dimming

If both channel 1 luminaires and channel 2 luminaires are controlled by the same DALI sensor, the user can plug the sensor into input 1 or input 2. Install the red and brown wires which can be found in the accessory plastic bag between L1 and switched L1 red wire and L2 and switched L2 brown wire. Ensure wires 1 and 2 remain connected.

If a push to make switch is required to work with the PIR, then the return switch wire needs to be connected to push 1 terminal if the PIR is in input 1 or push 2 terminal if the PIR is in input 2. This switch will operate both channels. Ensure link wires 1 and 2 remain in.

If the 2 channels are controlled by 2 different DALI sensors, plug 1 sensor into input 1 and 1 sensor into input 2. Install the brown and red wires as stated above but remove wires 1 and 2 to create individual DALI channels.

If 2 push to make switches are required to work with the PIRs, then the return switch wires need to be connected to push terminal 1 for PIR 1 and push terminal 2 for PIR 2. Ensure wires 1 and 2 are removed. As this is off 2 circuits 380 volts could be present at the switch and will need labelling as such.

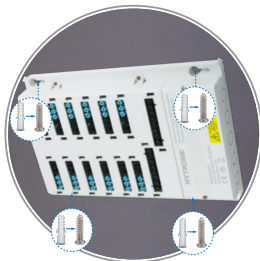
3. Switch Dim

If no sensors are used and a push to make switch is required to dim the DALI fittings then the return switch wire from the push to make switch needs to be connected to the input labelled switched L1. This will control 1 half of the box. Repeat this for the second half of the box and connect the return switch wire to the input labelled switched L2. Again 380 volts may be present at the switch and will need labelling as such.

Installation Methods

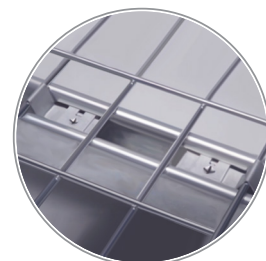
Surface Mount ▼

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



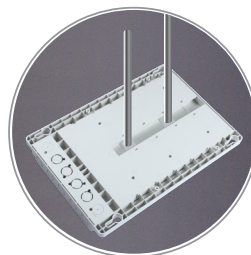
Marco Tray Mount ▼

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



Channel Nut Mount ▼

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



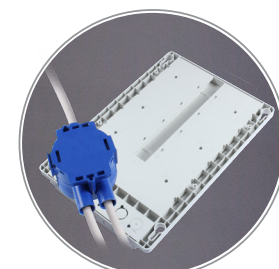
Mounting Rods ▼

It can be fixed with mounting rods.

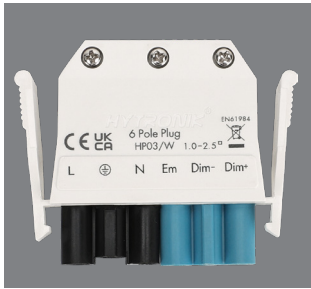


BESA/Junction Box Connection ▼

It can be connected with BESA/junction box.



Connection Box Associated Products



Description

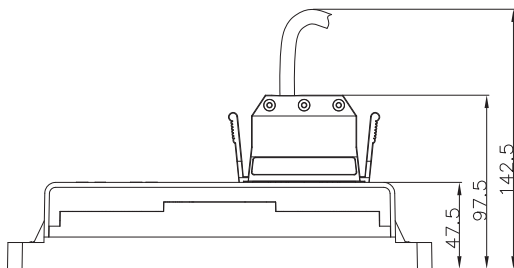
The HP03 is a durable GST type 6-pole male plug for standard luminaires, offering reduced wiring labor, enhanced safety, and user-friendly plug-and-play functionality.



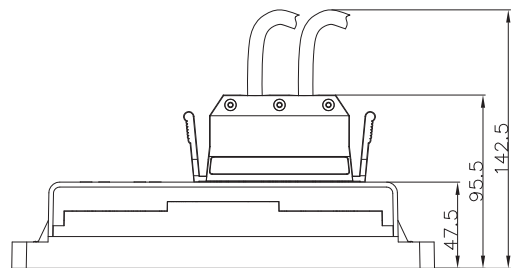
Description

The HP06 is a durable GST type 8-pole male plug for sensor, offering reduced wiring labor, enhanced safety, and user-friendly plug-and-play functionality.

Minimum Installation Height



Luminaire plug (HP03)



Sensor plug (HP06)

Note: The minimum height for total height of unit is 142.5mm(including connectors and cables).

Ceiling Rose/ Conduit Box Connection

Description

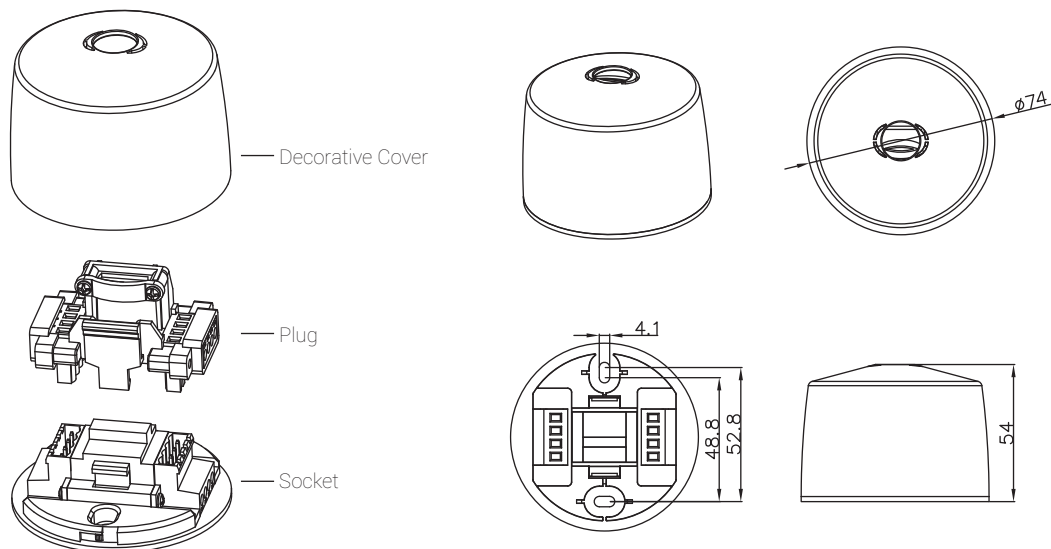
Ceiling rose QCCR01 can be used when there is a need to take power from a conduit box. The installation-friendly design comes with a very spacious termination space for really easy wirings.

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 to prevent loose connections
- Manufactured in flameretardant material

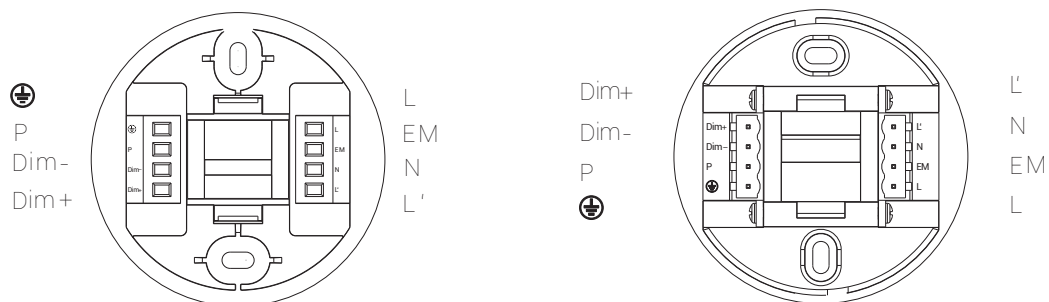


Mechanical Structure & Dimensions (mm)

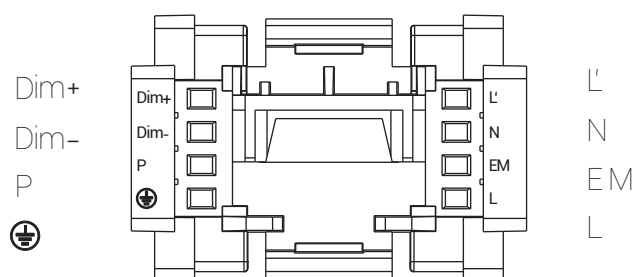


Input & Output Terminal Function

Terminal for Socket



Terminal for Plug



Connection to SCB03



Additional Information / Documents

1. To learn more about detailed product features/functions, please kindly refer to <https://hytronik.com/products/scb03>
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)