Installation and Instruction Manual

HYTRONIK ®

GST type 6-pole Quick Connection Box for Dimming Application

SCB01/BLE

1. Technical Specifications

Input voltage	220~240VAC 50/60Hz
Stand-by power	< 2W
Input power	13W
DALI bus power supply	I guaranteed : 40mA
	I max : 60mA
	U rated :14-16VDC
Overall load(Max.)	12A
Rated load(Max.)	10A capacitance, 10A resistance (without relay switch)
	3A capacitance, 6A resistance (with relay switch)
Transmission power	4 dBm
Range (Typical)	10 ~ 30m
Protocol	Bluetooth 5.0 SIG Mesh
Operation temperature	Ta: -10°C ~ +35°C
Storage temperature	-40°C ~ +70°C
Relative humidity	10 ~ 90%
IP rating	IP20
Insulation	Class II

2. Download the App

Free App for set-up and commissioning

Bluetooth® 5.0 SIG mesh

HYTRONIK Koolmesh · iOS · Android · for iOS · for Android

Smartphone app for both iOS & Android platform

for iPad

Koolmesh Pro app for iPad

Web · for Web

Web app/platform: www.iot.koolmesh.com

3. Description

Designed for low-volt (SELV) applications with SELV sensor connection and SELV PUSH/retractive switch.
GST type 6-pole terminal base quick connection box for DALI dimming & switching application, 14 luminaire outlets, 4 SELV RJ45 sensor outlets and 10 SELV switch inputs. Support up to 8 luminaire channels via app, and an extra channel for VFC (volt-free contact) and an extra channel for ELT switch.
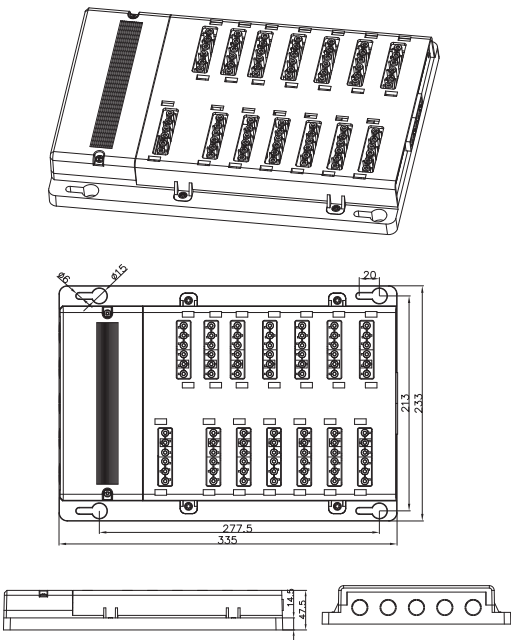
4. Key Features

- Dimmable & Switching applications
- Intelligent control with Bluetooth 5.0 SIG mesh module built in
- Detailed Bluetooth system features can be viewed on page 05-11
- Luminaire outlet: GST type 6-pole terminal base
- 4 Low-volt SELV RJ45 sensors ports (can be daisy chained)
- 10 SELV switch inputs
- Support VFC (volt-free contact) & ELT switch
- Support up to 8 luminaire channels (via app)
- Black housing and white housing available to choose from
- Tamper-proof structure design
- Expandable: easy extension to another SCB01/BLE wirelessly!
- Flame-retardant material for safety protection

5. Your Benefits

- Five types of installation methods meet 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
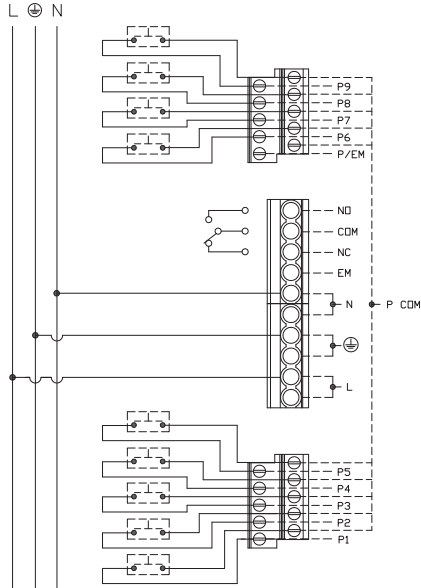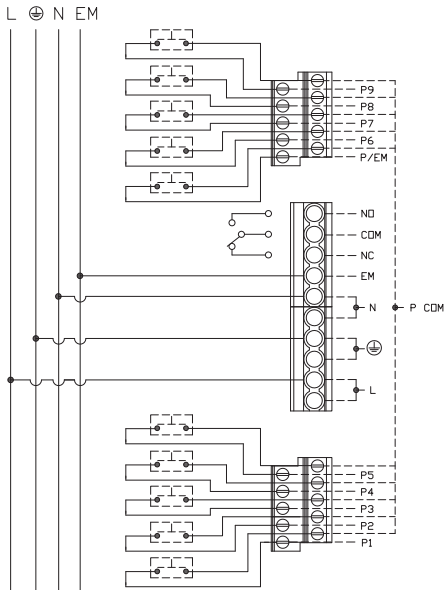- Can be supplied with pre-wired cables

6. Dimensions (mm)

7. Wiring Diagram

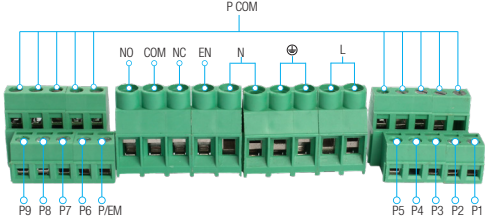*This product should be installed by a qualified electrician.*

With emergency test switch

8. Input & Output Terminal Function

Input Terminal

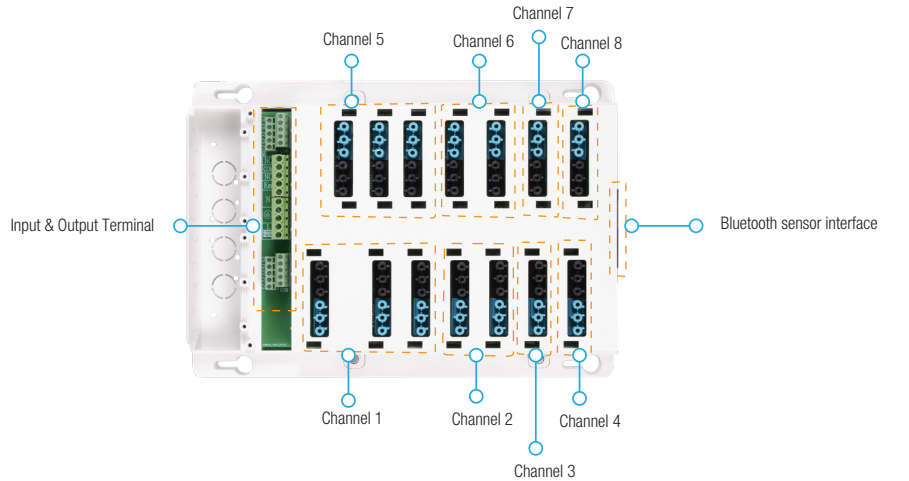Wire Range: 0.75 - 4.0mm² (max. 2 x 2.5mm²)

Luminaire outlet

L (Brown)
E (Yellow/Green)
N (Blue)
Em (Black)
Dim- (White)
Dim+ (Red)

with DALI dimming

L' (Brown)
E (Yellow/Green)
N (Blue)
Em (Black)
Dim- (White)
Dim+ (Red)

with relay switch +DALI dimming

Bluetooth sensor interface

Supply voltage 12VDC
Supply current 250MA(Max)

Channel 5 · Channel 6 · Channel 7 · Channel 8
Input & Output Terminal · Bluetooth sensor interface
Channel 1 · Channel 2 · Channel 3 · Channel 4

SCB01/BLE is a Bluetooth intelligent control fast junction box, through Bluetooth APP or PUSH, turn DALI signal and relay for dimming and color, or switch control.

According to different lamp types, it can be selected with relay switch +DALI channel (channel 1/2/5/6), or simple DALI control channel (channel 3/4/7/8), and provides emergency control interface, dry contact interface, 9 PUSH interface, 1 emergency test switch interface, 4 RJ45 Bluetooth sensor interface.

Built-in 4 Bluetooth control modules, divided into 4 devices:
(1). CH1 DALI CH2 DALI/VFC(NC/NO)
(2). CH3 DALI CH4 DALI/PUSH(1)/PUSH(2)/PUSH(3)
(3). CH5 DALI CH6 DALI/PUSH(4)/PUSH(5)/PUSH(6)
(4). CH7 DALI CH8 DALI/PUSH(7)/PUSH(8)/PUSH(9)

※ Refer to APP Settings for specific functions

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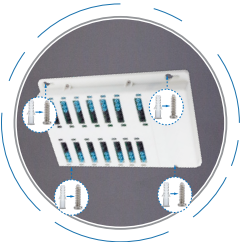WWW.HYTRONIK.COM   Subject to change without notice.   SCB01/BLE-20250211-A0

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9.Installation methods
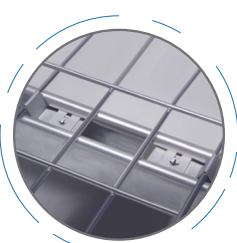
Installation methods

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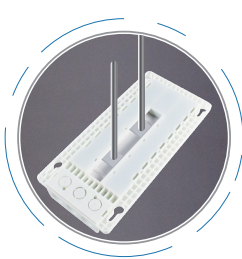

Marco Tray Mount ▼
It can work with Marco clips steel wire cables tray system.

Channel Nut Mount ▼
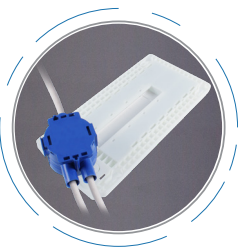It can work with channel nuts to fasten into the back.

Mounting Rods ▼
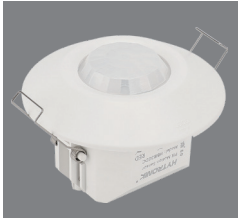It can be fixed with mounting rods.

BESA/Junction Box Connection ▼
It can be connected with BESA/junction box.

10.Connection Box Associated Products

Description

HBIR38DC is a Bluetooth PIR motion sensor equipped with an RJ45 network port. It connects to SCB01/BLE or SCB02/BLE via an external RJ45 cable and is powered by a 12V DC supply from the SCB01/BLE or SCB02/BLE.
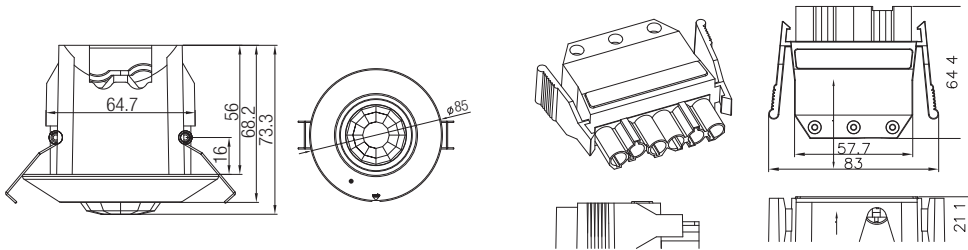
Description

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.
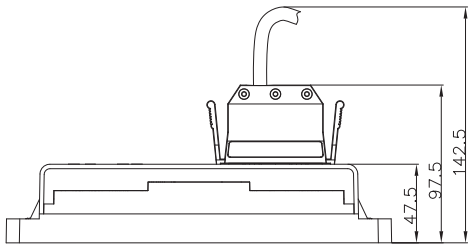
11.Mechanical Structure & Dimensions

Sensor:HBIR38DC

Plug:HP03

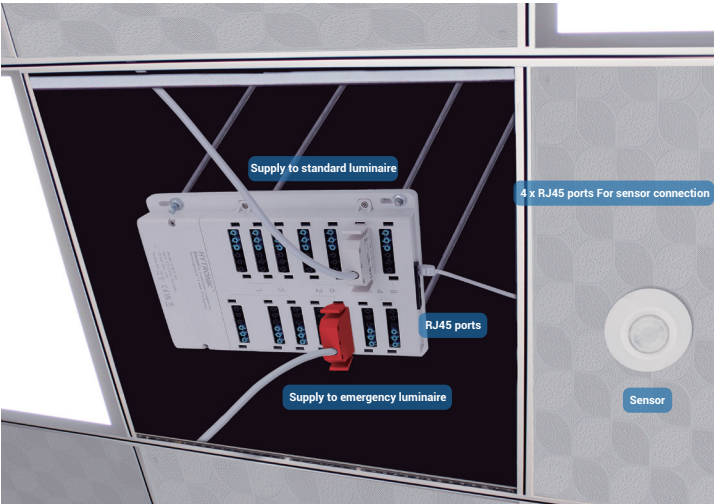## 12.Minimum Installation Height

Luminaire plug (HP03)

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

*More details about HP03 with different specification，please visit https://hytronik.com/products/modular-wiring-systems

13.Installation Scenario

14.Dimming Interface Operation Notes

Switch-Dim

The provided Switch-Dim interface allows for a simple dimming method using commercially available non-latching (momentary) wall switches. Detailed Push switch configurations can be set on Koolmesh app.

Switch Function	Action	Descriptions	
Push switch	Short press (<1 second) * Short press has to be longer than 0.1s, or it will be invalid.	- Turn on/off - Turn on only - Turn off only	- Recall a scene - Quit manual mode - Do nothing
	Double push	- Turn on only - Turn off only - Recall a scene	- Quit manual mode - Do nothing
	Long press (≥1 second)	- Dimming - Colour tuning - Do nothing	

Additional Information / Documents

1. To learn more about detailed product features/functions, please kindly refer to
   https://hytronik.com/products/scb01-ble

2. Regarding precautions for Bluetooth product installation and operation, please kindly refer to
   https://hytronik.com/service/downloads（Bluetooth Products Precautions for Product linstallation and Operation）

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

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

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