

Detached Motion Sensor with  Bluetooth® 5.0 SIG Mesh
HCD405/BT
 DALI Output



Product Description







HCD405/BT is a Bluetooth built-in microwave sensor with 30mA DALI power supply built in. It is designed for professional lighting manufactures who would like to incorporate wireless control into their luminaires. It is suitable for any typical indoor applications such as office, classroom, car park, warehouse and other commercial/industrial areas. With Bluetooth wireless mesh networking, it makes communication much easier without any hardwiring, which eventually adds values to luminaires and saves costs for projects. Meanwhile, simple device setup and commissioning can be done via **Koolmesh™** app.




App Features

-  Quick setup mode & advanced setup mode
-  Floorplan feature to simplify project planning
-  Web app/platform for dedicated project management
-  Koolmesh Pro iPad version for on-site configuration
-  Grouping luminaires via mesh network
-  Scenes
-  Detailed motion sensor settings
-  Dusk/Dawn photocell (Twilight function)
-  Schedule to run scenes based on time and date
-  Astro timer (sunrise and sunset)
-  Staircase function (master & slave)
-  Internet-of-Things (IoT) featured
-  Device firmware update over-the-air (OTA)
-  Device social relations check
-  Bulk commissioning (copy and paste settings)
-  Offline commissioning
-  Different permission levels via authority management
-  Network sharing via QR code or keycode
-  Remote control via gateway support HBGW01
-  Interoperability with Hytronik Bluetooth product portfolio
-  Continuous development in progress...

Hardware Features

-  Photocell Advance
-  DALI Dimmable with 30mA DALI broadcast output for up to 15 LED drivers
-  Plug'n'Play for flexible installation and cost saving assemble
-  Support to control DT8 LED drivers
-  Zero crossing detection circuit reduces in-rush current and prolongs relay life
-  5-year warranty

 **Bluetooth 5.0 SIG mesh**



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

Technical Specifications

Bluetooth Transceiver

Operation frequency	2.4 GHz - 2.483 GHz
Transmission power	4 dBm
Range (Typical indoor)	10~30m
Protocol	 Bluetooth® 5.0 SIG Mesh

Sensor Data

Sensor principle	High Frequency (microwave)
Operation frequency	5.8GHz+/-75MHz
Transmission power	<0.2mW
Detection range(Max.)	Max installation height: 6m Max detection range: 10m (diameter)
Detection angle	30°~150°

Input & Output Characteristics

Operating voltage	220~240VAC 50/60Hz
Stand-by power	<1W
Load ratings:	30mA (max. 15 devices)
Warming-up	20s

Safety & EMC

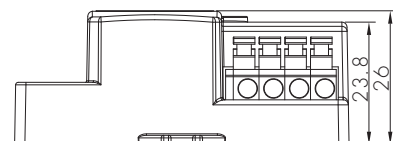
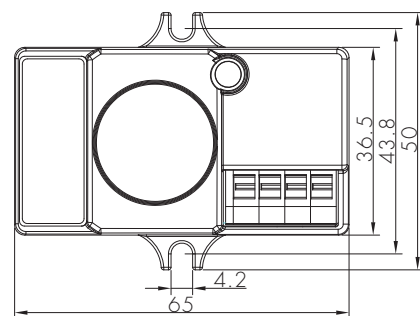
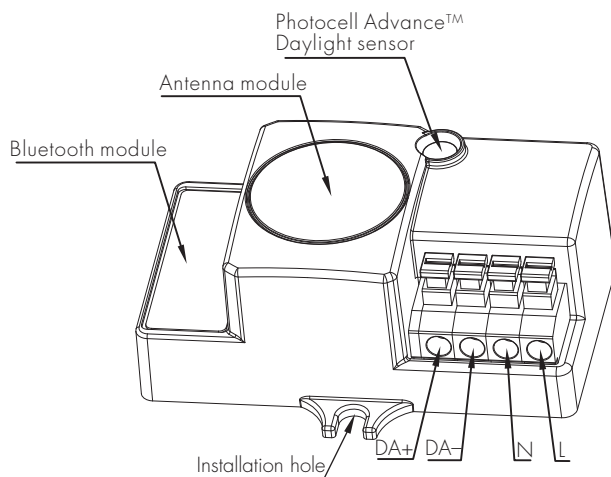
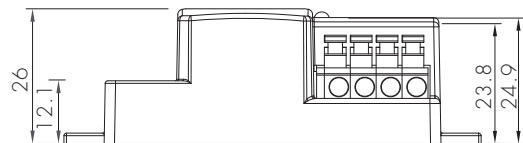
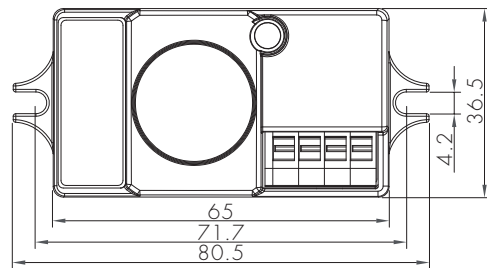
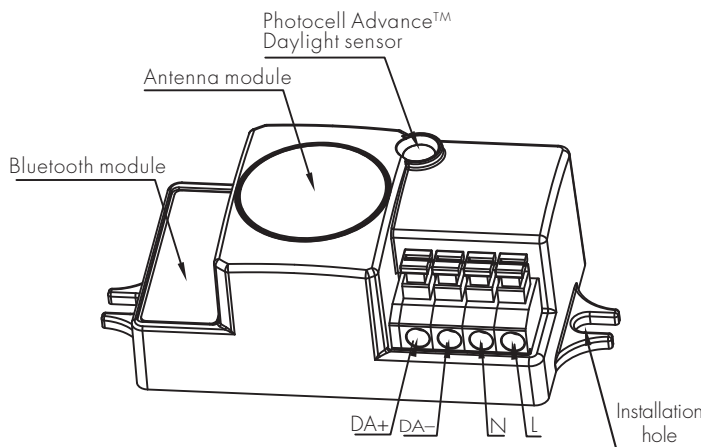
EMC standard (EMC)	EN55015, EN61000, EN61547
Safety standard (LVD)	EN60669-1, EN60669-2-1
RED	EN300328, EN301489-1/-17
Certification	Semko, CB, CE, EMC, RED, RCM

Environment

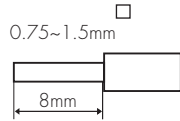
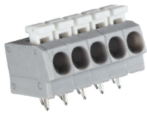
Operation temperature	Ta: -20°C ~ +55°C
Case temperature (Max.)	Tc: +75°C
IP rating	IP20

* The detection range is heavily influenced by sensor placement (angle) and different walking paces. It may be reduced under certain conditions.

Mechanical Structure & Dimensions

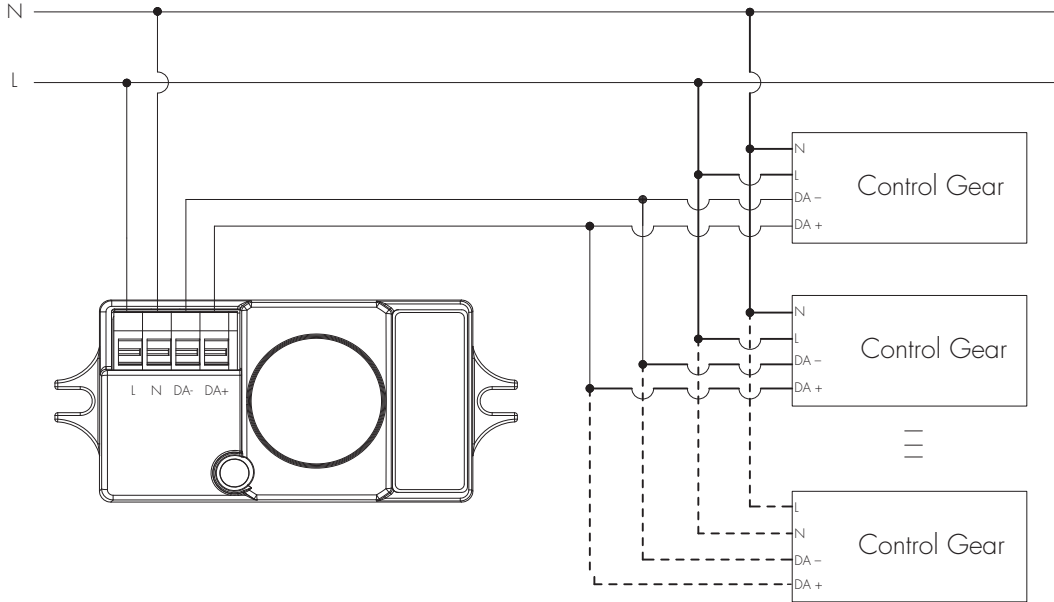


Wire Preparation

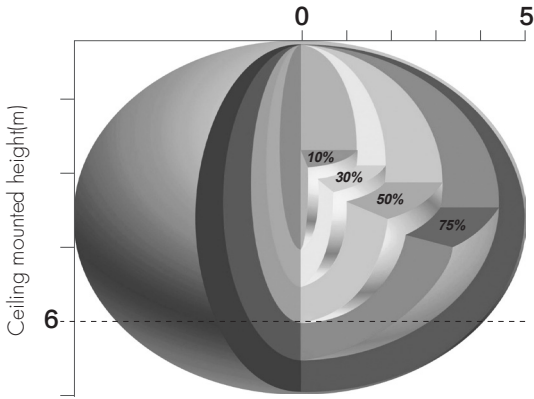


To make or release the wire from the terminal, use a screwdriver to push down the button.

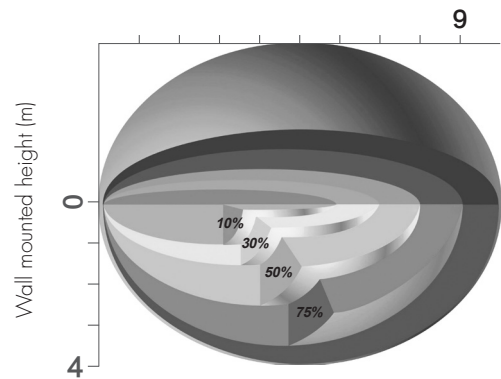
Wiring Diagram



Detection Pattern



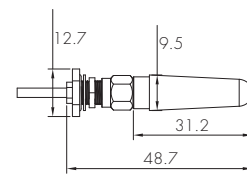
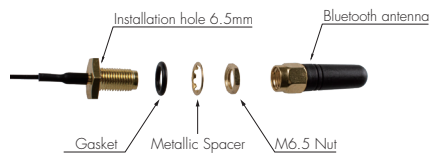
Ceiling mounted detection pattern (m)



Wall mounted detection pattern (m)

Optional Accessory: Reinforced Bluetooth Antenna

For some special applications, customers may need a larger Bluetooth transmission for both smartphone to device and device to device. Thanks to the reinforced Bluetooth antenna (optional black or white color to choose from), with it being added to the control base HCD405/BT, the transmission distance (smartphone to device) enlarges to 20m, the distance of device to device is around 50m.



Additional Information / Documents

1. For full explanation of Hytronik Photocell Advance™ technology, please kindly refer to www.hytronik.com/download ->knowledge ->Introduction of Photocell Advance
2. To learn more about detailed product features/functions, please refer to www.hytronik.com/download ->knowledge ->Introduction of App Scenes and Product Functions
3. Regarding precautions for Bluetooth product installation and operation, please kindly refer to www.hytronik.com/download ->knowledge ->Bluetooth Products - Precautions for Product Installation and Operation
4. Regarding precautions for microwave sensor installation and operation, please kindly refer to www.hytronik.com/download ->knowledge ->Microwave Sensors - Precautions for Product Installation and Operation
5. Data sheet is subject to change without notice. Please always refer to the most recent release on [www.hytronik.com/products/bluetooth technology](http://www.hytronik.com/products/bluetooth%20technology) ->Bluetooth Sensors
6. Regarding Hytronik standard guarantee policy, please refer to www.hytronik.com/download ->knowledge ->Hytronik Standard Guarantee Policy