HYTRONIK HC005S-BT Built-In Microwave Motion Sensor Owner's Manual

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HC005S-BT Built-In Microwave Motion Sensor
Owner's Manual

Built-in Microwave Motion Sensor with Bluetooth® **5.0 SIG Mesh**
HC005S/BT
ON/OFF CONTROL

Contents

Product Description

HC005S/BT is a Bluetooth built in microwave motion sensor with ON/OFF control. It is designed for professional lighting manufactures who would like to incorporate wireless control into their luminaires. HC005S/BT 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 **Koolmesh™** via 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)
	Power-on status (memory against power loss)
	Off line 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
	ON/OFF control with load ratings of: – 300VA (capacitive) – 400W (resistive)
	Compact design
	Zero crossing detection circuit to reduce inrush current and prolong relay lifetime
	Loop-in and loop-out terminals for efficient installation
	5-year warranty

 5.0 SIG mesh

 for iOS	 for Android
https://apps.apple.com/cn/app/koolmesh/id148 3721878	**https://play.google.com/store/apps/details? id=com.koolmesh.si**

Smartphone app for both iOS & Android platform

https://apps.apple.com/cn/app/koolmesh/id1570378349

Koolmesh Pro app for iPad
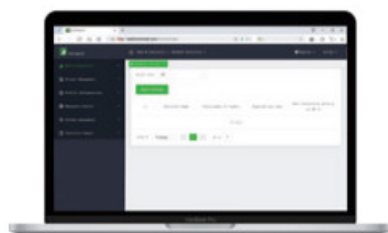
http://www.iot.koolmesh.com
Web app/platform: **www.iot.koolmesh.com**

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 installation height 6m Max detection range 10m (diameter)
Detection angle	30°~150°

Environment	
Operation temperature	Ta: -20OC ~ +50OC
Case temperature(MAX.)	Tc:+75°
IP rating	IP20

Input & Output Characteristics	
Operating voltage	220~240VAC 50/60Hz
Stand-by power	<1W
Load ratings	300VA(capacitive),400W(resistive)
Warming-up	20s

Safety & EMC	
EMC standard (EMC)	EN55015, EN61000, EN61547
Safety standard (LVD)	EN 60669-1/2-1 AS/NZS 60669-1/-2-1
Radio Equipment (RED)	EN300400, EN301489-1/-3 EN301489-17, EN62479, EN300328
Certification	Semko,CB, CE , EMC, RED, RCM

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

Mechanical Structure & Dimensions
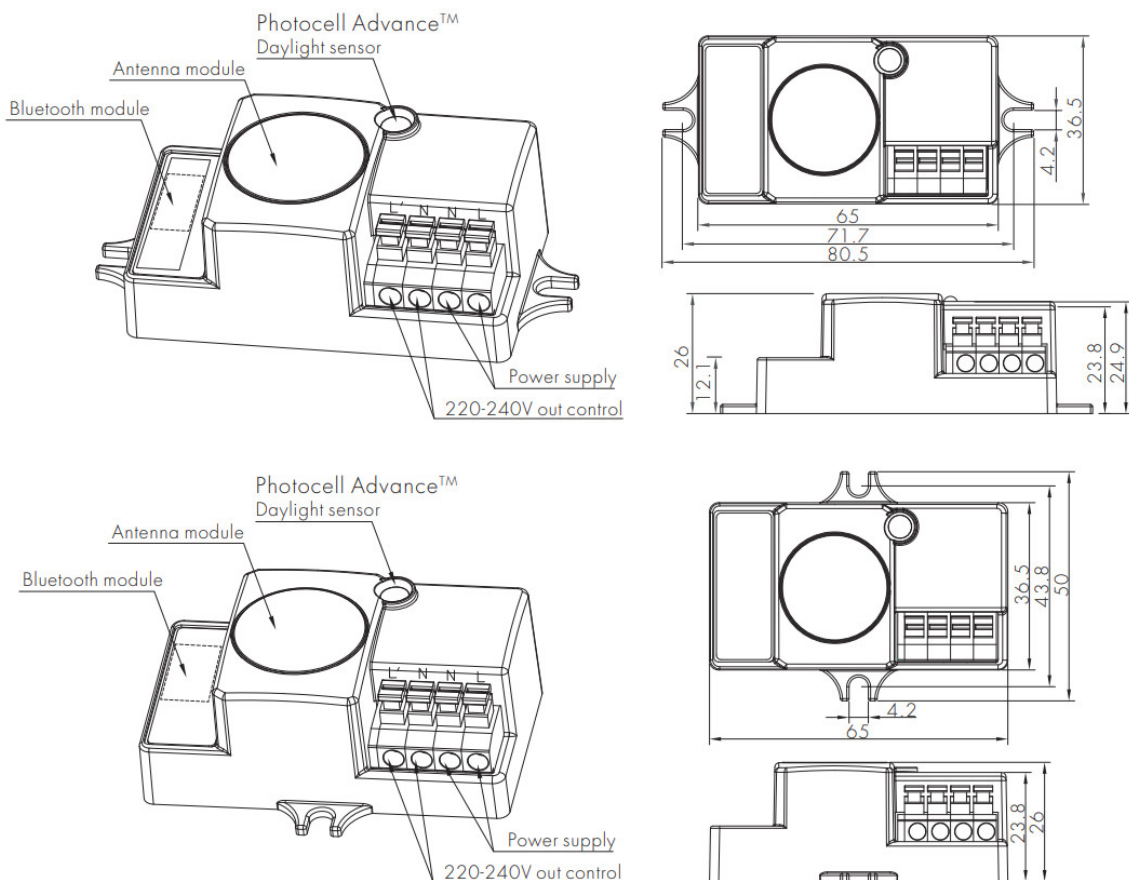
Sensor Installation: In order to ensure good product performance, please avoid sensor being installed at or well below the LED gear tray/aluminum plate. It is highly recommended to expose the antenna part and Photocell Advance TM daylight sensor part by making a cut-out hole. For the Bluetooth module part, the cut-out hole is also recommended when the luminaire design is in a very confined metal environment where the Bluetooth signal transition can be potentially blocked or affected.

Wiring Diagram

N

L

N
L Control gear

N
L Control gear

N
L Control gear

L N N L'

Detection Pattern

0   5

Ceiling mounted height(m)

10%
30%
50%
75%

6

Ceiling mounted detection pattern (m)

9

Wall mounted height (m)

0

10%
30%
50%
75%

4

Wall mounted detection pattern (m)
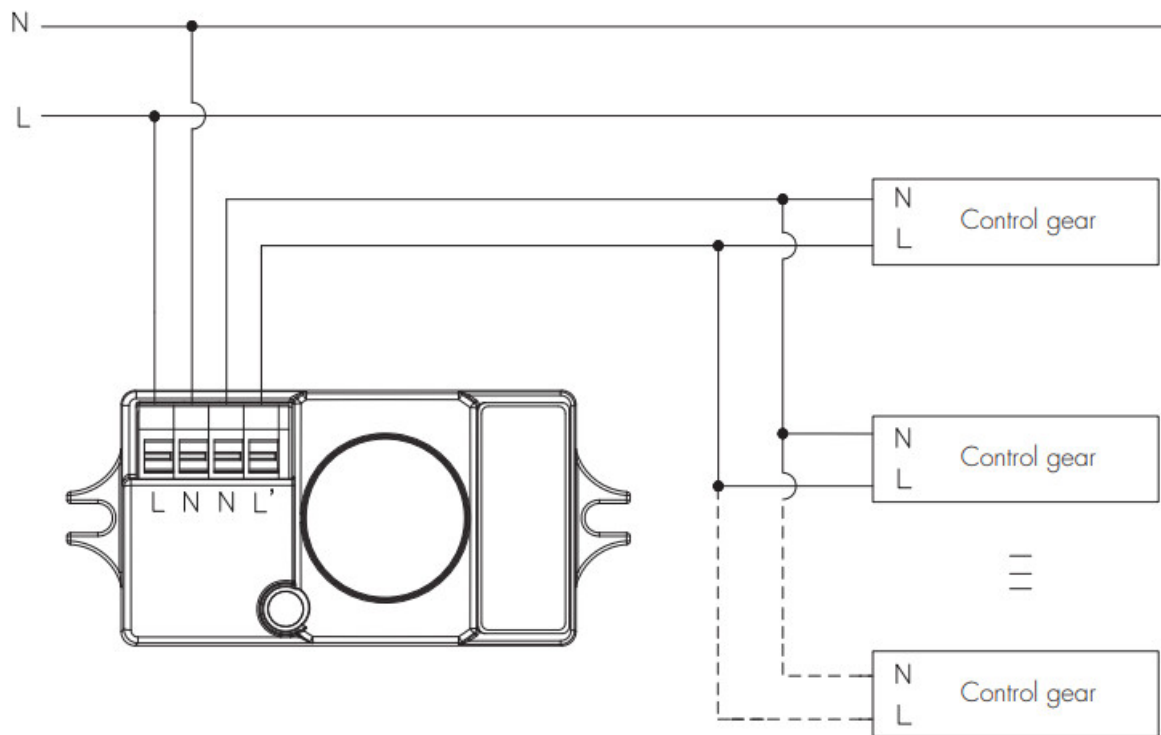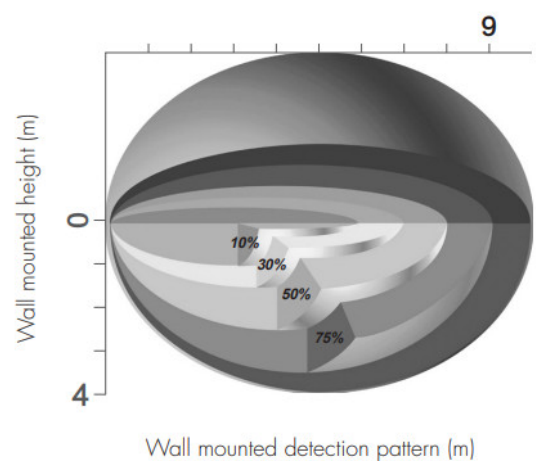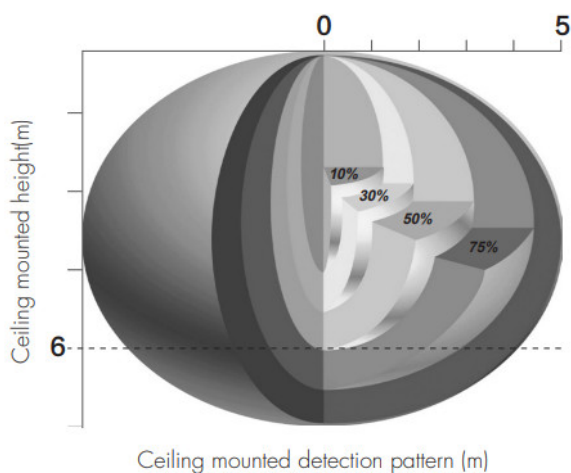
Additional Information / Documents

1. For full explanation of Hytronik Photocell Advance TM 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 ->Bluetooth Sensors

6. Regarding Hytronik standard guarantee policy, please refer to **www.hytronik.com/download** ->knowledge ->Hytronik Standard Guarantee Policy

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Documents / Resources

HYTRONIK HC005S-BT Built-In Microwave Motion Sensor [pdf] Owner's Manual
HC005S-BT Built-In Microwave Motion Sensor, HC005S-BT, Built-In Microwave Motion Sensor, Microwave Motion Sensor, Motion Sensor, Sensor

References

- **Catalogue_Hytronik**
- **iot.koolmesh.com**