HYTRONIK HMW84 HF Motion Sensor Instruction Manual

HYTRONIK ®

**HMW84 HF Motion Sensor
Instruction Manual**

IP65 HF Motion Sensor with **Bluetooth**® 5.0 SIG Mesh

Contents

HMW84 HF Motion Sensor

HMW84 (High Bay)
Tri-level Control & Daylight Harvest for Independent DALI/DALI2

Ceiling mount

conduit

clamp
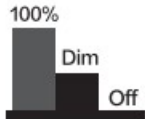
Product Description

HMW84 is a Bluetooth DALI high-bay HF motion sensor, with capability of up to 15m installation height. It is designed with robust IP65 structure, and offers 3 different installation methods. 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
	Tri-level control

	Daylight harvest
	Circadian rhythm (Human centric lighting)
	Floorplan feature to simplify project planning
	Web app/platform for dedicated project management
	Koolmesh Pro iPad version for on-site conguration
	Grouping luminaires via mesh network
	Scenes
	Detailed motion sensor settings
	Dusk/Dawn photocell (Twilight function)
	Push switch conguration
	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)
	Dynamic daylight harvest auto-adaptation
	Power-on status (memory against power loss)
	Ofine 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

	Compatible with EnOcean BLE switches
	Continuous development in progress…

Hardware Features

	40mA DALI/DALI2 Broadcast output
	3 installation methods
	IP65 design
	High-bay (up to 15m height)
	5-year warranty

 5.0 SIG mesh

https://apps.apple.com/cn/app/koolmesh/id1483721878	**https://play.google.com/store/apps/details?id=com.koolmesh.sig**

Smortphone app for both iOS & Android platform

https://apps.apple.com/cn/app/koolmesh/id1570378349
Koolmesh Pro app for iPad
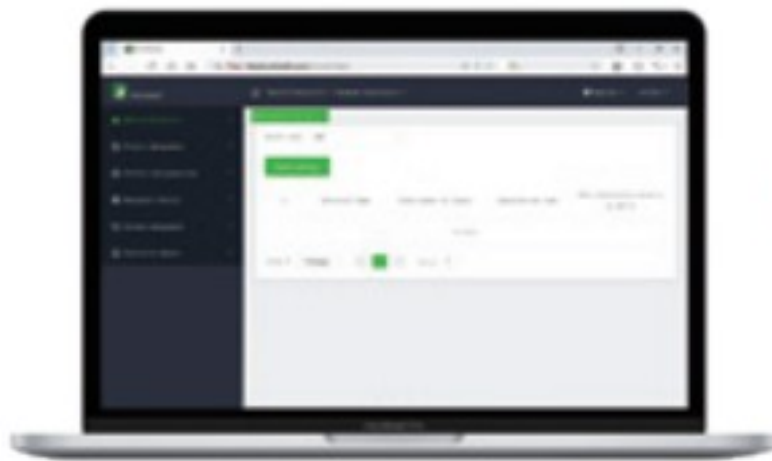
for Web

EnOcean
Self-powered IoT

Fully support EnOcean self-powered switch module PTM215B (HBES01/W & HBES01/B)

Technical Data

Input Characteristics

Model No.	HMW84
Mains voltage	220~240VAC 50/60Hz
Stand-by power	<1W
Load ratings:	
Capacitive	800VA
Resistive	1000W
Warming-up	20s

Safety and EMC

EMC standard (EMC)	EN55015, EN61000-3-2/-3-3
Safety standard (LVD)	EN60669-1, EN60669-2-1
Radio Equipment (RED)	EN300440, EN301489-1/-17/-3, EN62479,EN300328
Certification	CB, CE , EMC, RED, RCM

Sensor Data

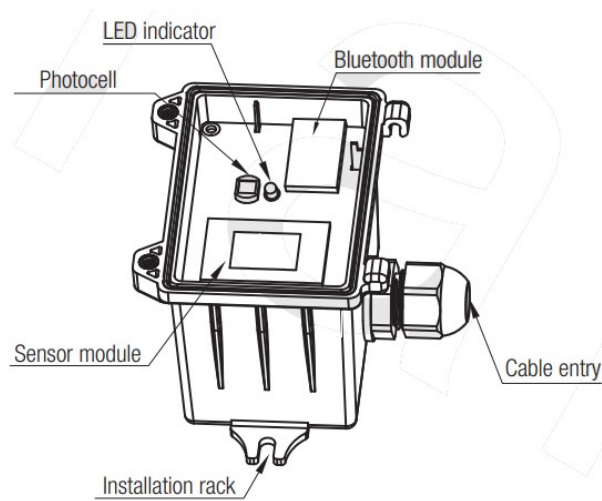| Model No.	HMW84
Sensor principle	High Frequency (microwave)
Operation frequency	5.8GHz +/- 75MHz
Transmission power	<0.2mW
Detection range	Max installation height 15m Max detection range 10m (diameter)
Detection angle	360°

Environment

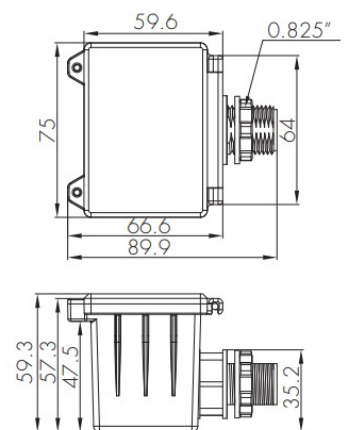| Operation temperature	Ta: -20O C ~ +70OC
IP rating	IP65

Mechanical Structures and Installations

For more details, please refer to user manual.
A. Ceiling mount

LED indicator
Photocell
Bluetooth module
Sensor module
Cable entry
Installation rack

91.5
80.7
75
4.1
4.1
66.6
81.5

59.3
57.3
47.5
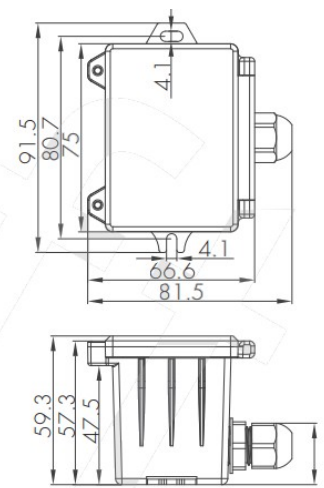
B. Screw to the Luminaire by conduit

LED indicator
Photocell
Bluetooth module
Cable entry
Sensor module

59.6
0.825"
75
64
66.6
89.9

59.3
57.3
47.5
35.2
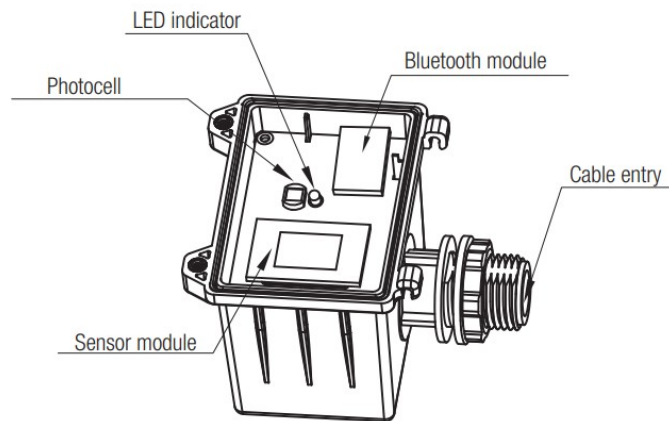
C. Attach to the shade by clamp

LED indicator
Photocell
Bluetooth module
Angle adjustment
Luminaire clamp
Sensor module

33.7
15
75
Φ4.5
4.5
28.5
59.6
66.6
163.2

84.5
59.3
Φ29
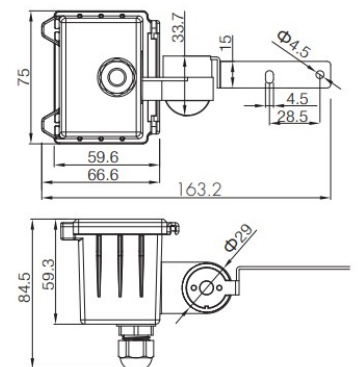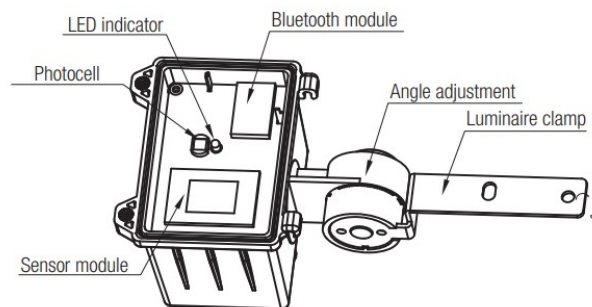
Note:We recommend the mounting distance between sensor to sensor should be more than 2m to prevent sensors from false-triggering.

Detection Pattern

Ceiling mounted height(m)

0   5

10%
30%
50%
75%

15

Wiring Diagram

L
N

Brown
Blue

Red
Black

HMW84

L
N
DALI +
DALI −

LED Driver

Placement Guide and Typical Range
Smart Phone to Device Range

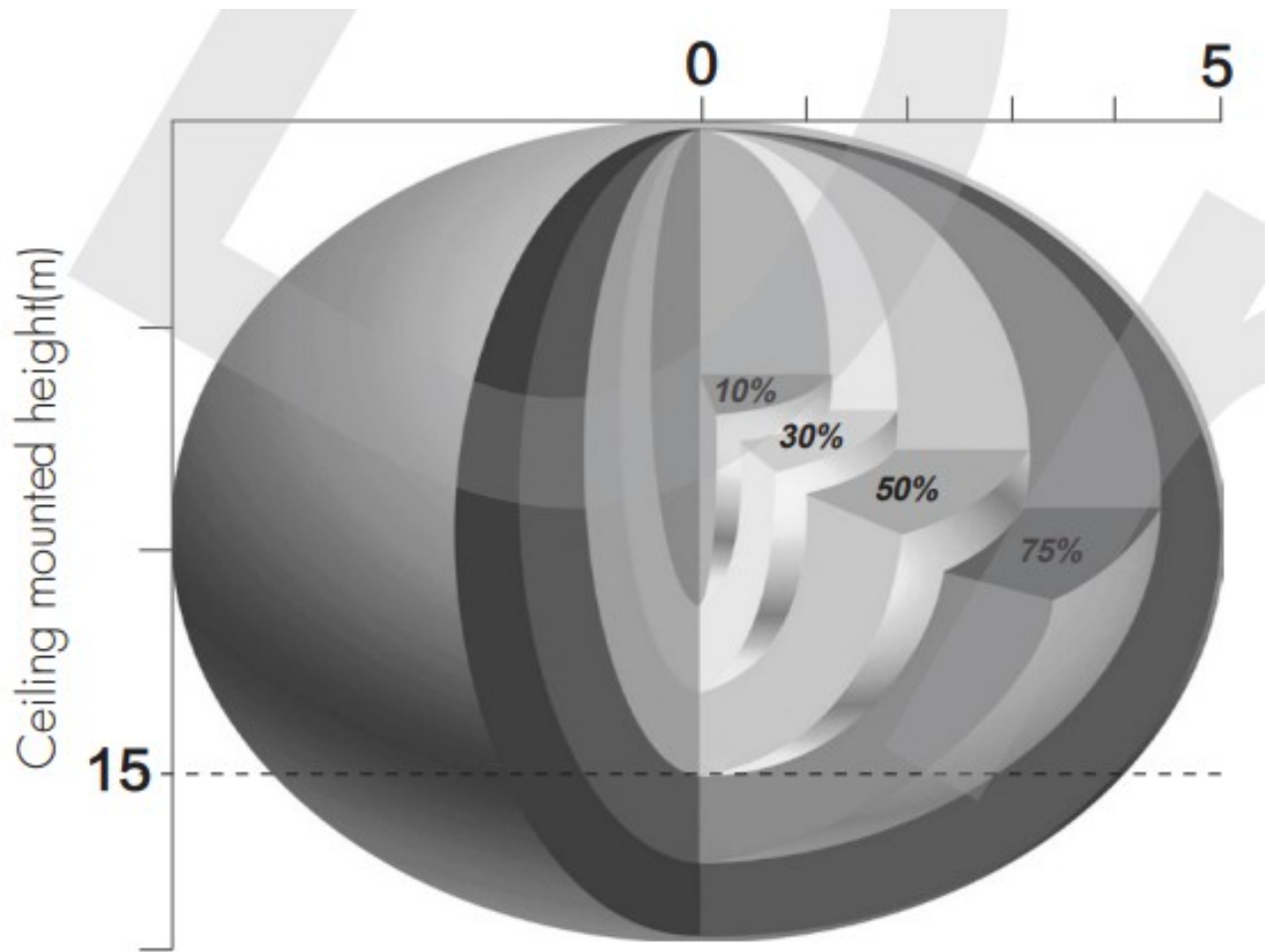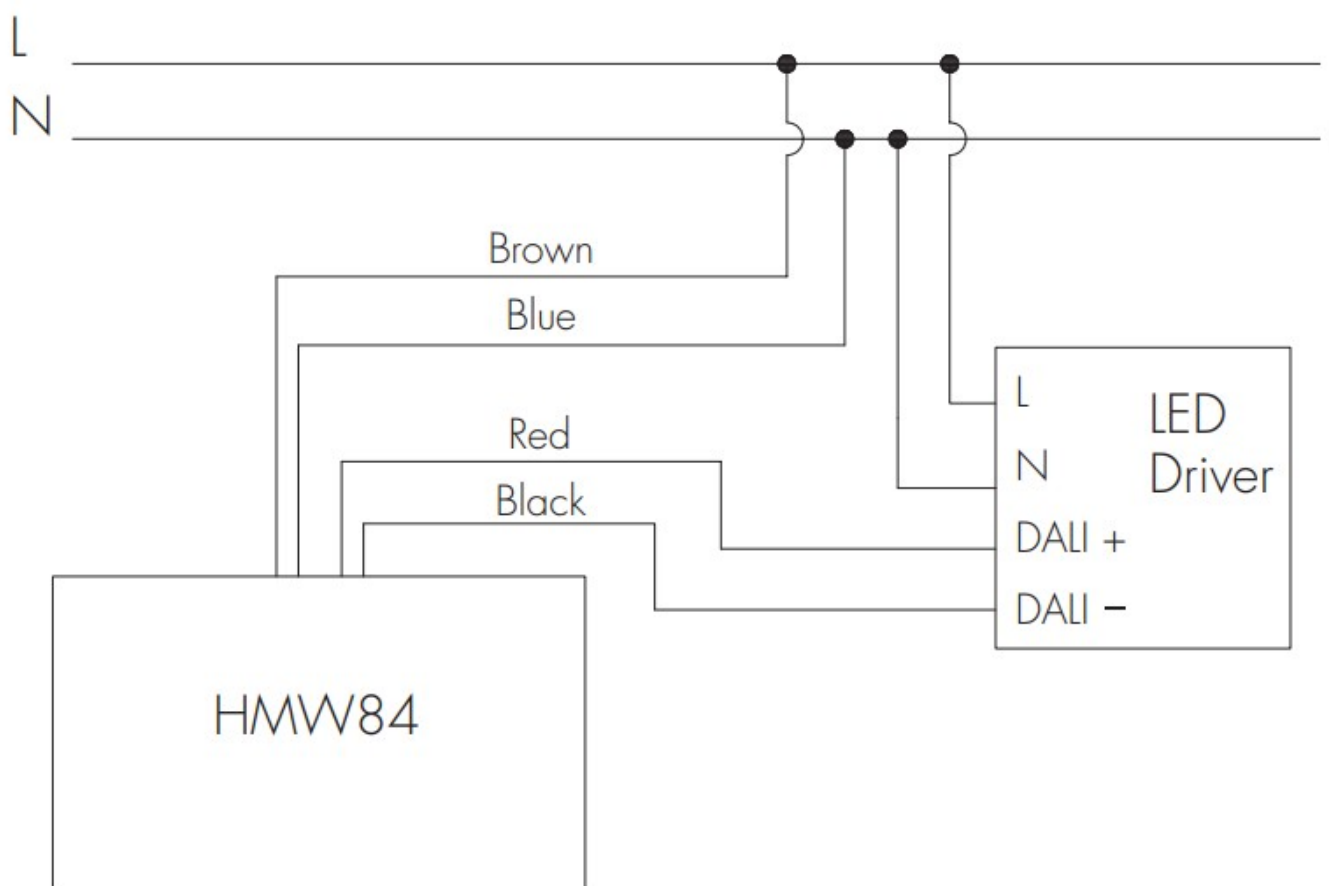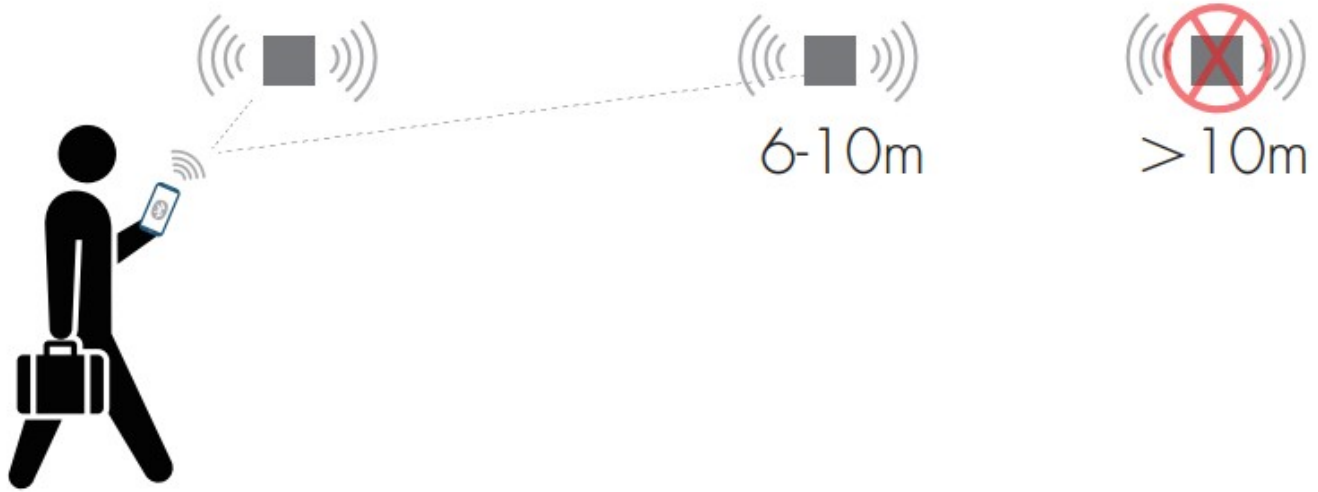The smart device with the App installed will have a typical range of 10m, but varies from device to device. During commissioning, the installer will need to be in range of the devices when searching for devices to add to the network.

Once the devices have been added to the network via the App, the devices will start communicating within the wireless mesh. This means that once the network is complete, all devices are accessible from the smart device when in a 20m range of a single point.

Additional Information / Documents

1. To learn more about detailed product features/functions, please refer to **www.hytronik.com/download** ->knowledge->Introduction of App Scenes and Product Functions

2. 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

3. 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

4. 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

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

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Documents / Resources

HYTRONIK HMW84 HF Motion Sensor [pdf] Instruction Manual
HMW84, HMW84 HF Motion Sensor, HF Motion Sensor, Motion Sensor, Sensor

References

- [Catalogue_Hytronik](#)
- [iot.koolmesh.com](#)