



## HYTRONIK HMW98 HF Motion Sensor Instruction Manual

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# **HYTRONIK**®

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

   RED  **CB** IP65 

HMW98 (High Bay)

Tri-level control & Daylight harvest & 1-10V Dimmable



Ceiling mount



conduit



clamp











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## Product Description

HMW98 is a Bluetooth 1-10V 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
	Kool mesh Pro iPad version for on-site configuration
	Grouping luminaires via mesh network
	Scenes
	Detailed motion sensor settings

	Dusk/Dawn photocell (Twilight function)
	Push switch configuration
	Schedule to run scenes based on time and date
	Astro timer (sunrise and sunset)
	Staircase function (primary & secondary)
	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)
	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
	Compatible with En Ocean BLE switches



Continuous development in progress...

## Hardware Features



1-10V dimming control method



3 installation methods



IP65 design



High-bay (up to 15m height)



5-year warranty

## Bluetooth 5.0 SIG mesh



iOS



Android



for iOS



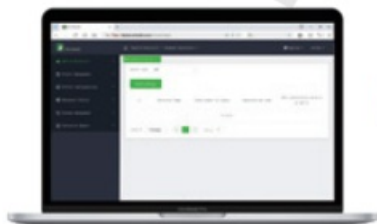
for Android

Smartphone app for both iOS & Android platform



for iPad

Koolmesh Pro app for iPad



Web



for Web

Web app/platform: [www.iot.koolmesh.com](http://www.iot.koolmesh.com)

<https://apps.apple.com/cn/app/koolmesh/id1483721878>

<https://play.google.com/store/apps/details?id=com.koolmesh.sig>

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

Web app/platform: [www.iot.koolmesh.com](http://www.iot.koolmesh.com)



## EnOcean

Self-powered IoT



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

## Technical Data

### Input Characteristics

<b>Model No.</b>	<b>HMW98</b>
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.	HMW98
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°

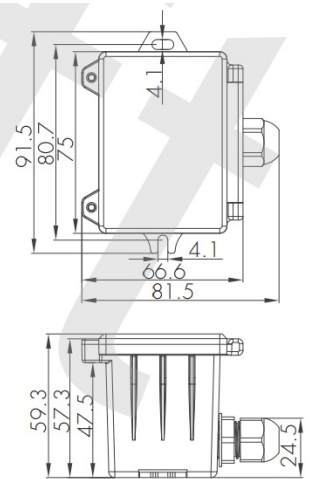
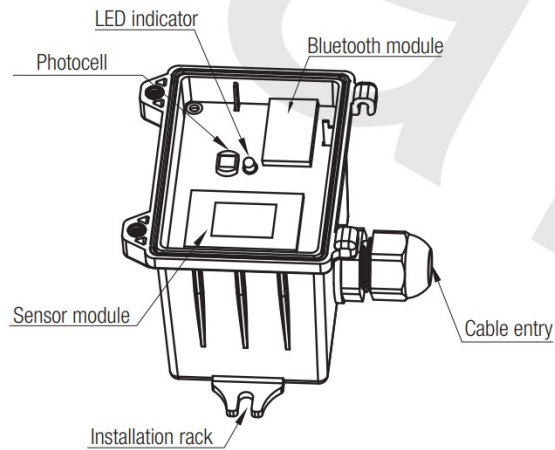
## Environment

Operation temperature	Ta: -20°C ~ +70°C
IP rating	IP65

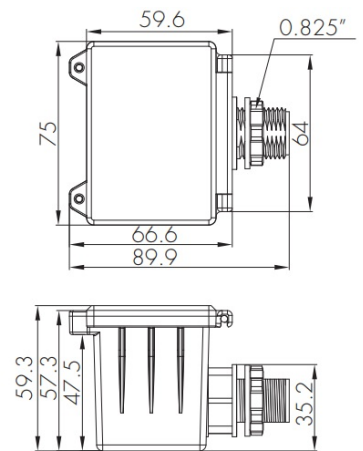
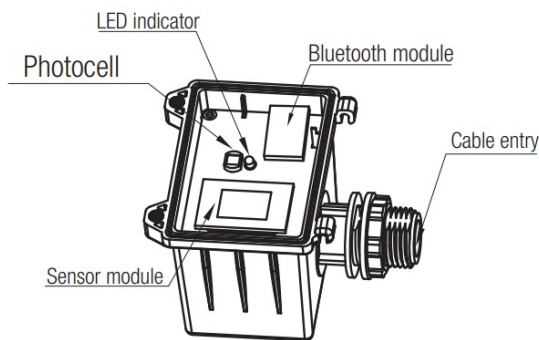
## Mechanical Structures and Installations

For more details, please refer to user manual.

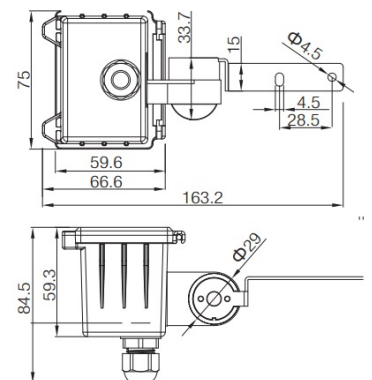
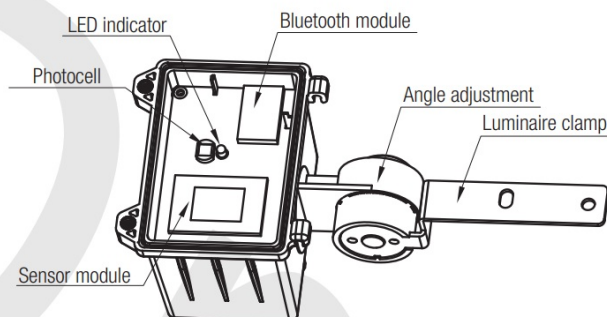
### A. Ceiling mount



### B. Screw to the Luminaire by conduit

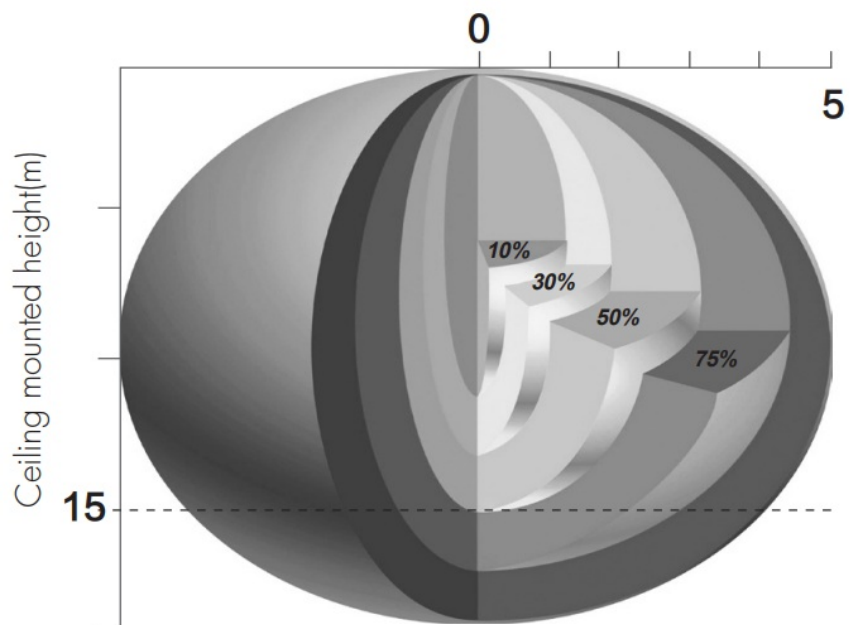


### C. Attach to the shade by clamp

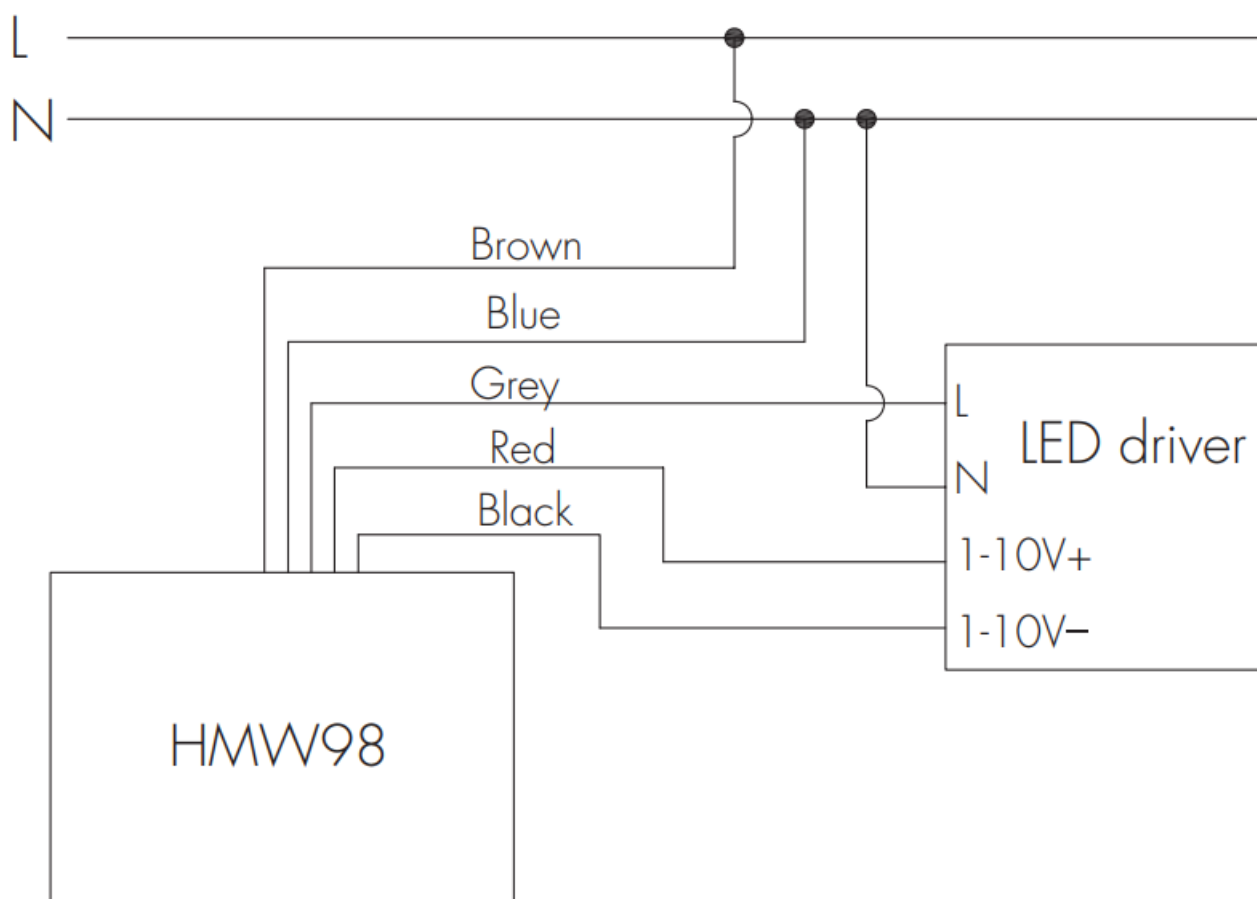


Note: We recommend the mounting distance between sensor to sensor should be more than 2m to prevent sensors from false-triggering.

### Detection Pattern

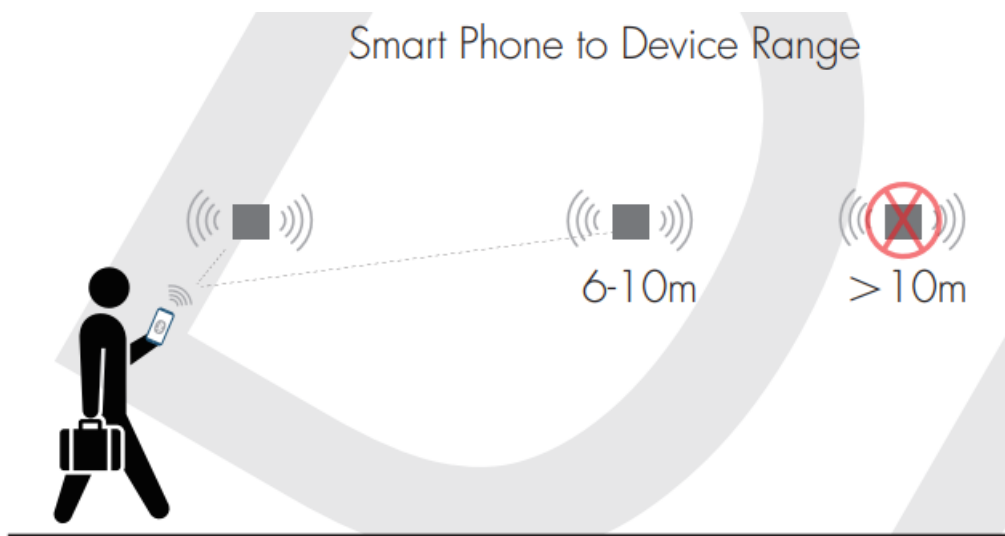


### Wiring Diagram



### Placement Guide and Typical 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](http://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](http://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](http://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](http://www.hytronik.com/products/bluetooth) technology ->Bluetooth Sensors
5. Regarding Hytronik standard guarantee policy, please refer to [www.hytronik.com/download->knowledge->Hytronik](http://www.hytronik.com/download->knowledge->Hytronik) Standard Guarantee Policy

**Subject to change without notice.**  
**Edition: 25 Jun. 2021 Ver. Draft**

#### Documents / Resources

	<p><a href="#">HYTRONIK HMW98 HF Motion Sensor</a> [pdf] Instruction Manual          HMW98, HMW98 HF Motion Sensor, HF Motion Sensor, Motion Sensor, Sensor</p>
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## References

-  [Catalogue\\_Hytronik](#)
-  [iot.koolmesh.com](#)

Manuals+.