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HYTRONIK HBIR29/2CH PIR Standalone Motion Sensor Instruction Manual

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HYTRONIK®

SIG Mesh
DALI control with two independent channel outputs
HBIR29/2CH

PIR Standalone Motion Sensor with 5.0

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Technical Specifications

Operation frequency	2.4 GHz – 2.483 GHz
Transmission power	4 dBm
Range (Typical indoor)	10~30m
Protocol	Bluetooth 5.0 SIG Mesh
Operating voltage	220~240VAC 50/60Hz
Load ratings	CH1: Max. 25 devices, 50mA CH2: 24VDC≤2A, 250VAC≤2A
Warming-up	20s
Sensor principle	PIR detection
Installation height (Max.)	6m
Detection range (Ø)	9m
Detection angle	360°
Operation temperature	Ta:-20 °C~+50 °C
IP rating	IP20
EMC standard (EMC)	EN55015, EN61000, EN61547
Safety standard (LVD)	EN60669-1/-2-1, AS/NZS60669-1/-2-1
RED	EN300328, EN301489-1/-17
Certification	CB, CE , EMC, RED, RCM, UKCA

Download the App

Free App for set-up and commissioning

 **Bluetooth** 5.0 SIG mesh



for iOS



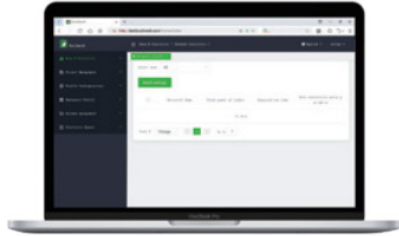
for Android

<https://apps.apple.com/cn/app/koolmesh/id1483721878>
<https://play.google.com/store/apps/details?id=com.koolmesh.sig>
Smartphone app for both iOS & Android platform



for iPad

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



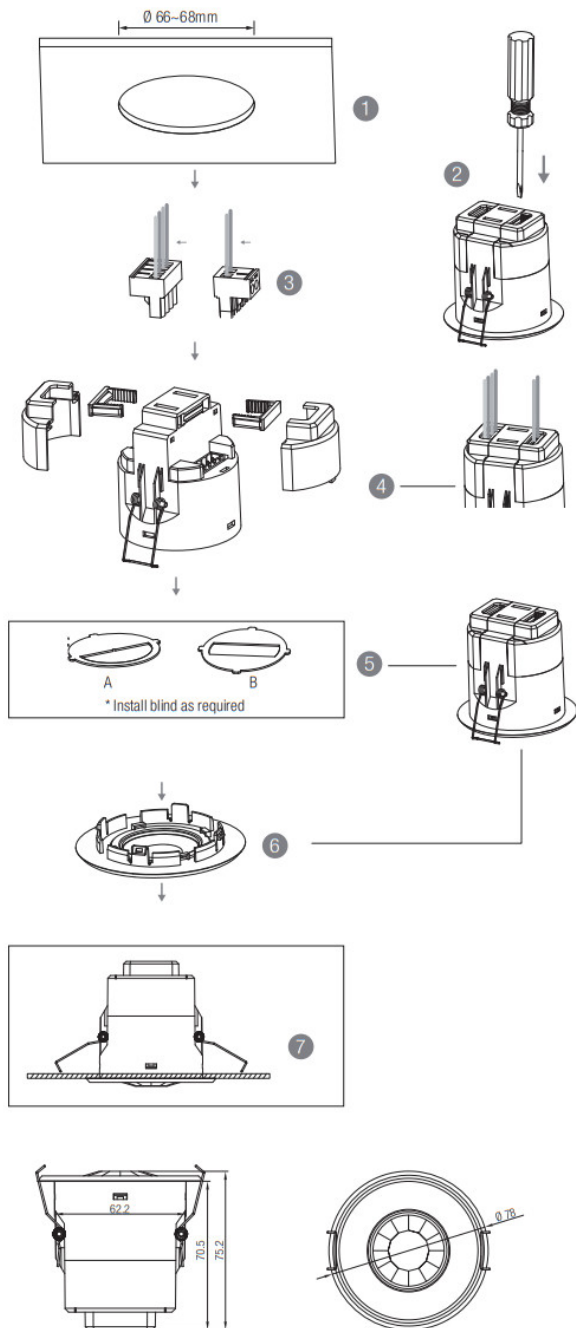
for Web

<http://www.iot.koolmesh.com>

Koolmesh Pro app for iPad

Installation

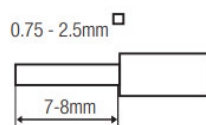
Mechanical Structure & Dimensions



1. Ceiling (drill hole $\phi 66\sim 68\text{mm}$)
2. Carefully prise off the cable clamps.
3. Make connections to the pluggable terminal blocks.
4. Insert plug connectors and secure using the provided cable clamps, then clip terminal covers to the base.
5. Fit detection blind (if required) and desired lens.
6. Clip fascia to body.
7. Bend back springs and insert into ceiling.

Wire Preparation

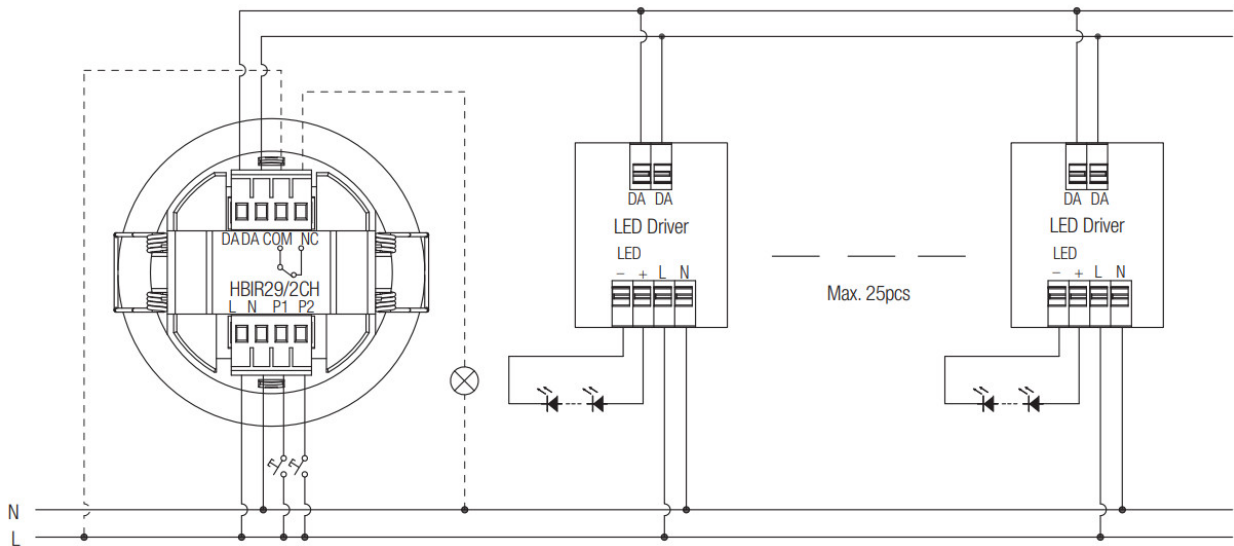
Wire Preparation



Pluggable screw terminal. It is recommended to make connections to the terminal before fitting to the sensor.

1. 200 metres (total) max. for 1mm^2 CSA ($T_a = 50^\circ\text{C}$)
2. 300 metres (total) max. for 1.5mm^2 CSA ($T_a = 50^\circ\text{C}$)

Wiring Diagram



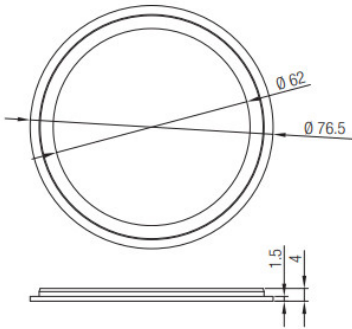
Dimming Interface Operation Notes

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.

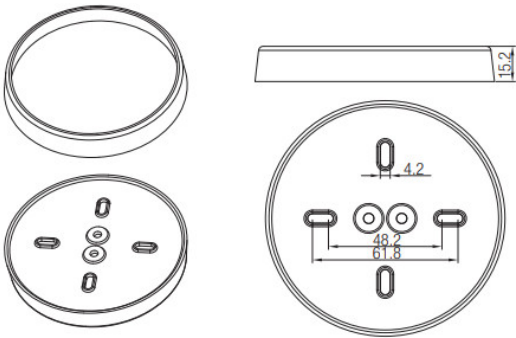
Switch Function	Action	Descriptions
Push switch	Short press (<1 second)	- Turn on/off – Recall a scene
	' Short press has to be longer than 0.1s, or it will be invalid.	- Turn on only – Exit manual mode
		- Turn off only – Do nothing
		- Turn on only – Exit manual mode
Simulate sensor	Double push	- Turn off only – Do nothing
		- Recall a scene
	Long press (1 second)	- Dimming –
	Colour tuning	- Do nothing
Simulate sensor	/	- Upgrade a normal ort/off motion sensor to a Bluetooth controlled motion sensor

Big and small silicon gasket used to make IP54 degree protection when HBIR29/2CH series device mounted into HA03 housing for ceiling mount



Small silicon water-proof gasket dimension(size:mm)

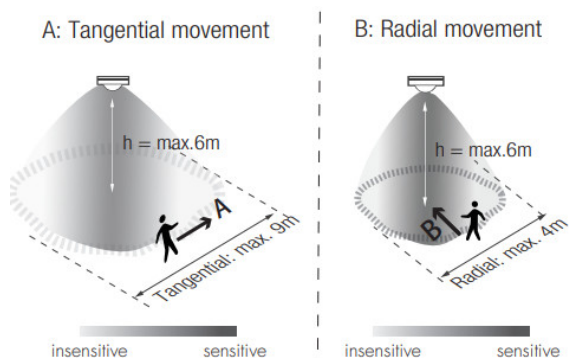
Big silicon water-proof gasket dimension(size:mm)



HBIR29/2CH (Low-bay)

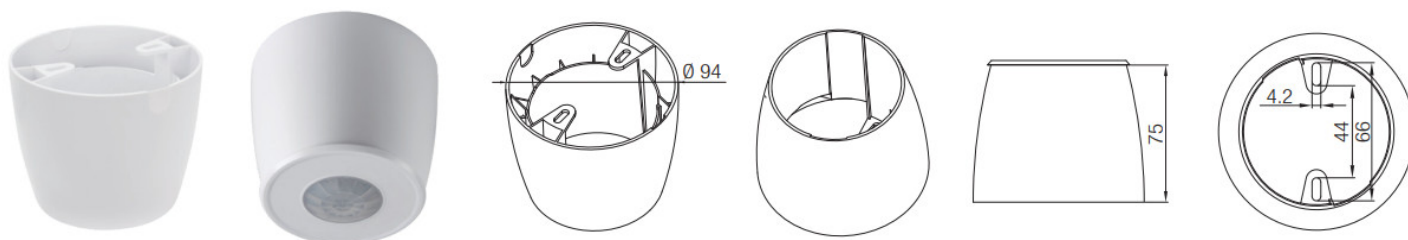


HBIR29/2CH: Low-bay flat lens detection pattern for single person @ Ta = 20°C
(Recommended ceiling mount installation height 2.5m-6m)

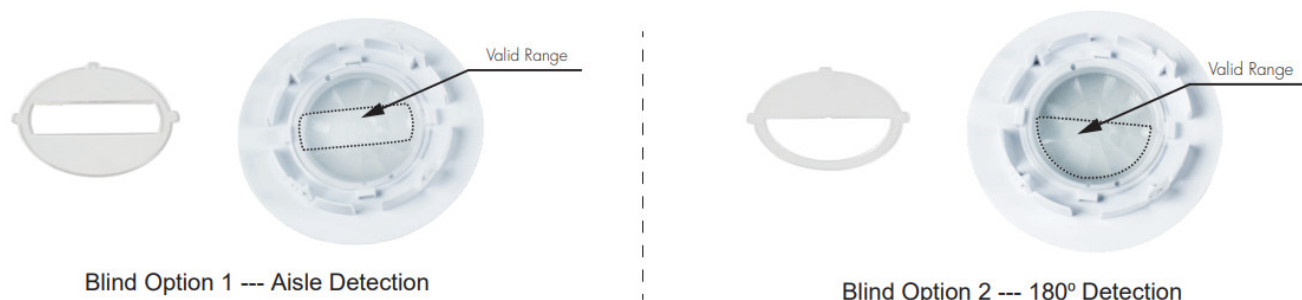


Mount height	Tangential (A)	Radial (B)
2.5m	max 50m ² (Ø = 9m)	max 13m ² (Ø = 4m)
3m	max 64m ² (Ø = 10m)	max 13m ² (Ø = 4m)
4m	max 38m ² (Ø = 8m)	max 13m ² (Ø = 4m)
5m	max 38m ² (Ø = 8m)	max 13m ² (Ø = 4m)
6m	max 38m ² (Ø = 8m)	max 13m ² (Ø = 4m)

Ceiling/Surface Mount Accessory HA03: Default IP20, IP65 can be request with extra big & small water-proof gaskets



Optional Accessory — Blind Insert for Blocking Certain Detection Angles

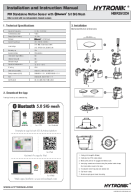


Additional Information/Documents

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

Subject to change without notice.
HBIR29/2CH-20220424-A0

Documents / Resources



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HBIR29-2CH PIR Standalone Motion Sensor, HBIR29-2CH, HBIR29-2CH Standalone Motion Sensor, PIR Standalone Motion Sensor, Standalone Motion Sensor, PIR Motion Sensor, Motion Sensor, Sensor

References

- [Microwave sensor Microwave motion sensor Hytronik Electronics Co., Ltd.](#)
- [Catalogue Hytronik](#)
- [iot.koolmesh.com](#)

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