

1. 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
Stand-by power	<1W
Switched power	Max. 40 devices, 80mA
Warming-up	20s
Sensor principle	PIR detection
Detection range (Max.)* HBIR29	Installation Height : 5m Detection Range (Ø) : 10m @ 3m height
Detection range (Max.)* HBIR29/H	Installation height : 15m (forklift) 12m (person) Detection range (Ø) : 20m
Detection angle	360°
Operation temperature	Ta: -20°C~+50°C
IP rating	IP20
EMC standard (EMC)	EN55015, EN61000, EN61547 EN60669-1/-2-1
Safety standard (LVD)	AS/NZS60669-1/-2-1
RED	EN300328, EN301489-1/-17
Certification	CB, CE, EMC, RED, RCM

2. Download the App

Free App for set-up and commissioning

Bluetooth 5.0 SIG mesh




 iOS 10.0 or later






 Android 5.0 or later





Web app/platform:
iot.koolmesh.com

3. Dimming Interface Operation Notes

Switch-Dim

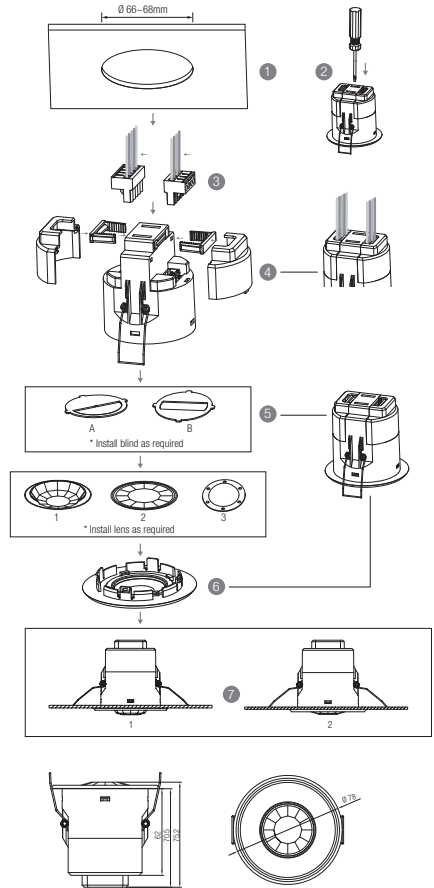
The provided Switch-Dim interface allows for a simple dimming method using commercially available non-latching (momentary) wall switches. Detailed Push switch configurations can be set on Koolmesh app.

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

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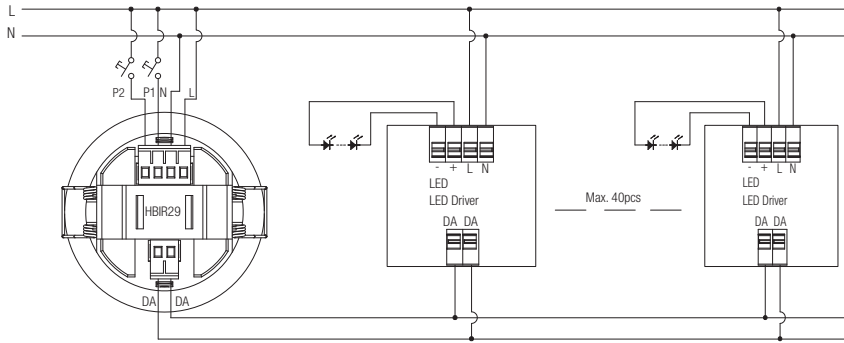
4. Installation

Mechanical Structure & Dimensions

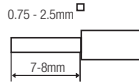


1. Ceiling (drill hole $\phi 66-68\text{mm}$)
2. Carefully prise off the cable clamps.
3. Make connections to the pluggable terminal blocks.
4. Insert plug connectors and secure using the provided cable clamps, then clip terminal covers to the base.
5. Fit detection blind (if required) and desired lens.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

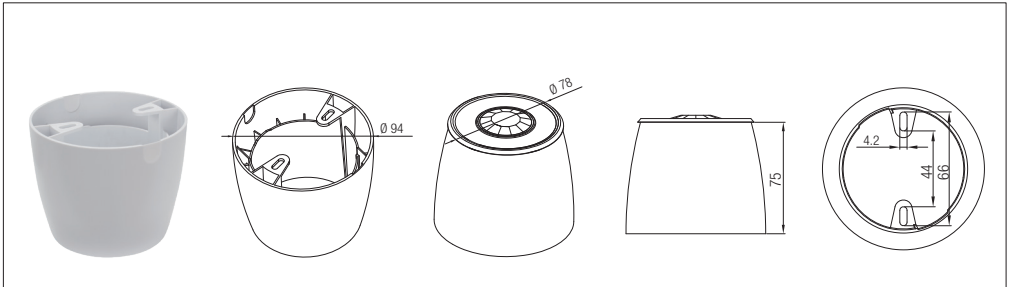
Wiring Diagram



Wire Preparation





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



5. Detection Range

HBIR29

Lens	Max. Detection	With Blind A	With Blind B
Convex 	Height: 3m Max. range (Ø): 10m	Height: 3m Max. range (Ø): 5m	Height: 3m Max. range (Ø): 8m
Flat 	Height: 3m Max. range (Ø): 9m	Height: 3m Max. range (Ø): 4.5m	Height: 3m Max. range (Ø): 7m

HBIR29/H (Mid Bay)

		Installation height	15m (forklift)
			12m (person)
		Detection range (Ø)	20m

6. Additional Information / Documents

- To learn more about detailed product features/functions, please refer to www.hytronik.com/download ->knowledge ->Introduction of App Scenes and Product FunctionsInstallation
- 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
- 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
- Regarding Hytronik standard guarantee policy, please refer to www.hytronik.com/download ->knowledge ->Hytronik Standard Guarantee Policy