

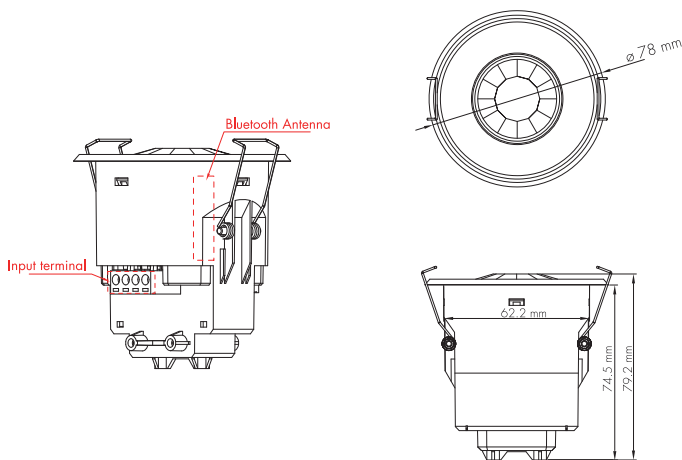
1 Safety Information



WARNING

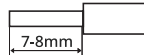
- Installation by a qualified electrician only and in accordance with local electrical regulations.
- Disconnect mains power before installation, wiring, maintenance or replacement.
- Failure to follow the wiring diagram may result in product damage and malfunction.
- Refer to the Wire Preparation section for recommended wire diameter and strip length.
- Push inputs are mains-voltage inputs and must only be connected to mains-rated switches.
- Do not connect mains voltage (L/N) to the DALI terminals.
- For non-polarity-marked DALI terminals (DA/DA), DALI wiring is polarity-free.
- Keep the antenna area clear of metal or conductive materials.
- Maintain at least 10 mm clearance around the antenna whenever possible for optimal wireless performance.
- Avoid installing the antenna section inside a metal enclosure or behind large metal structures.

3 Technical Drawing (Unit: mm)



4 Wire Preparation

0.75 - 2.5mm²



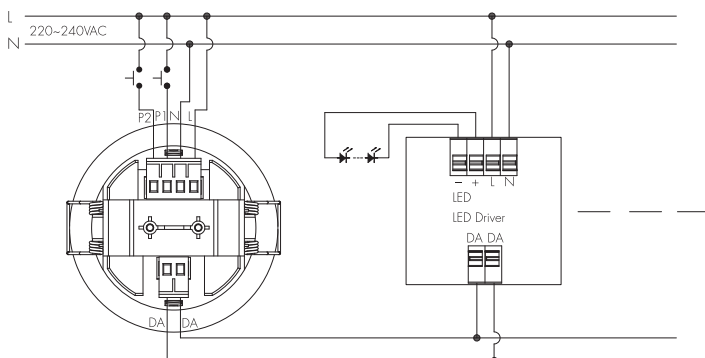
(min 6mm, max 11mm)



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

1. 200 metres (total) max. for 1mm² CSA (Ta = 50°C)
2. 300 metres (total) max. for 1.5mm² CSA (Ta = 50°C)

5 Wiring Diagram

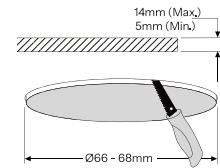
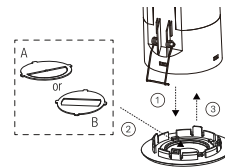


2 Specifications

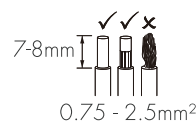
Dimming (Output) Interface	DALI/DALI-2
Bluetooth Platform	Nordic nRF52832
Bluetooth frequency	2.4 GHz - 2.483 GHz
Bluetooth range (Phone to Device)	10-30m
Bluetooth transmit power	4 dBm
Bluetooth system	Koolmesh
Operating voltage range	220-240 VAC 50/60 Hz
Stand-by power (Psb)	<1W
Warming-up	20 s
DALI bus nominal current (I guaranteed)	80 mA
Detection angle	360°
Max. Detection range (Diameter)	9.0 m
Maximum Mounting Height	6.0 m
Sensitivity	10% / 30% / 50% / 75% / 100%
Ambient temperature	-20~+50°C
Storage temperature	-35~+55°C
Humidity max	10~90%
IP Rate	IP20 / IP54

6 Installation Process

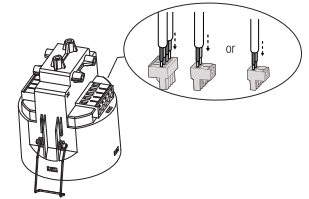
- 1 Optional: If a detection blind is required, detach the lens cover, select the suitable detection blind and place it above the lens, then refit the lens cover onto the sensor body.
- 2 Ceiling cut-out (hole Ø 66-68mm).



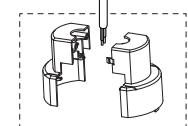
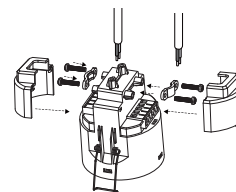
- 3 Prepare the cables correctly.



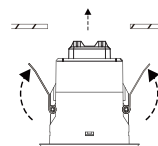
- 4 Connect the cables to the pluggable terminal blocks according to the wiring diagram.



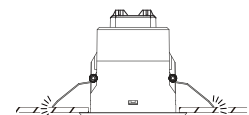
- 5 Secure the cables with screws and cable clips for better stability. Install the standard back caps (or replace with the high back cap HA08 for larger wire diameter if necessary).



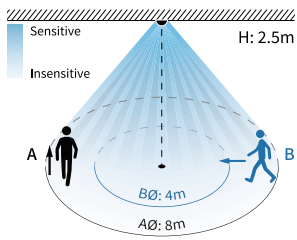
- 6 Bend the spring clips upwards and fit the sensor into the ceiling cut-out.



- 7 Spring clips will release and secure the sensor in the ceiling.



7 Detection Range



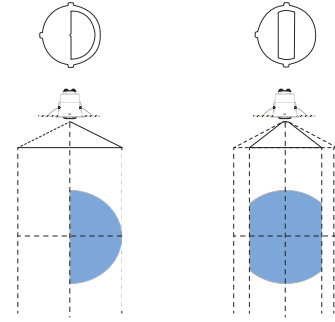
A. Tangential Movement

H[m]	2.5	3	4	5	6
Ø[m]	8	9	7	7	7

B. Radial Movement

H[m]	2.5	3	4	5	6
Ø[m]	4	4	4	4	4

Detection Blind Options



8 Koolmesh App Guide & Bluetooth Range



For additional information, please refer to:
<http://faq.koolmesh.com/>



iOS



Android

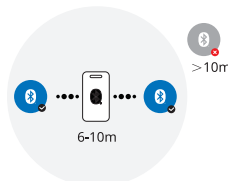


iPad



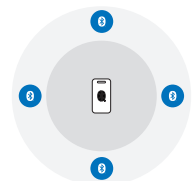
Web

1 Phone/Pad to Device



During commissioning, the installer must remain within Bluetooth range of the target device when adding it via the App.

2 Device to Device



After commissioning, devices communicate through the mesh network. Users can access the network by connecting to any active mesh node.

9 Switch Input Function Configuration

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.

Note: Single press, double press, and press-and-hold actions can each be independently assigned to one function via the app. Once configured, each action triggers only its assigned function. Multiple functions cannot be activated by a single press action.

Switch Function	Action	Descriptions
Normal PUSH (Retractive Switch)	Single press (> 0.1s) Double press Press and hold (> 1s)	- ON/OFF - OFF only - Recall this scene - Sensor take over - Not in use
Sensor-Link	/	- Hold time/scene - Stand-by time/scene - Upgrade a normal on/off motion sensor to a Bluetooth-controlled motion sensor
ON OFF Switch (Latching Switch)	/	Upgrade a standard on/off control to Bluetooth control, enabling one latching switch to control multiple luminaires or zones, reducing wiring and switch count.
Fire Alarm Function	Refer to https://support.koolmesh.com/	- Able to connect the Fire Alarm system - Once the fire alarm system is triggered, all the luminaires controlled by the Push Switch will enter the preset scene (normally it's full on), after the fire alarm system gives the ending signal, all the luminaires controlled by this Push Switch will revert back to normal status.

10 Default Settings (Factory Settings)

Sensor Setting		Push Switch Setting	
Control Object	Zone	Push Switch Function	Normal PUSH (Retractive switch)
Sensor Status	Sensor ON	Control Object	Zone
Detection Range	100%	Single Press	ON/OFF
Hold Time	20min	Double Press	Disable
Hold Time Dimming Level	ALL ON	Press and Hold	Brightness dimming
Stand-by Time	5s		
Stand-by Dimming Level	10%		
Sensor Mode	Auto		
Mode in Priority	Manual prior to sensor		

11 Troubleshooting

Malfunction	Possible Cause	Remedy
Fixture does not light up	Incorrect daylight threshold setting	Adjust daylight threshold setting
	Faulty fixture	Replace fixture
	No power supply	Check power to sensor
	Detection zone not targeted	Check detection area setting
Fixture is always on	Continued movement in the detection zone	Check detection area setting
Fixture turns on unexpectedly	Sudden temperature change, airflow, open windows or weather influence	Adjust zone, change installation site