Installation and Instruction Manual

HYTRONIK ®

PIR Motion Sensor for Track System with ✸Bluetooth® 5.0 SIG Mesh
DALI Output

HBIR29/TK

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
DALI bus power supply	I guaranteed : 80mA I max : 250mA U rated : 15VDC
Sensor principle	PIR detection
Detection range(max.)	Installation height : 6m Diameter (Ø) : 10m
Detection angle	360°
Operation temperature	Ta:-20°C~+50°C
IP rating	IP20

2. Download the App

Free App for set-up and commissioning

✸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
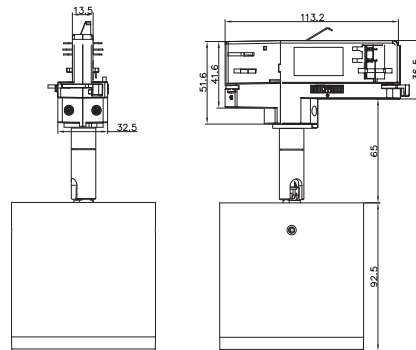
for Web

Web app/platform: www.iot.koolmesh.com

3. Installation

Mechanical Structure & Dimensions

Ø94

113.2

13.5

51.6   41.6   36.5

32.5

65

92.5
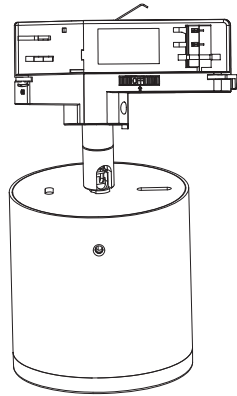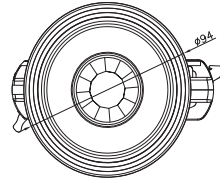
Wiring Diagram

———This product should be installed by a qualified electrician.

L
N
G

L
N
LED Driver
DA−
DA+
LED +
LED −

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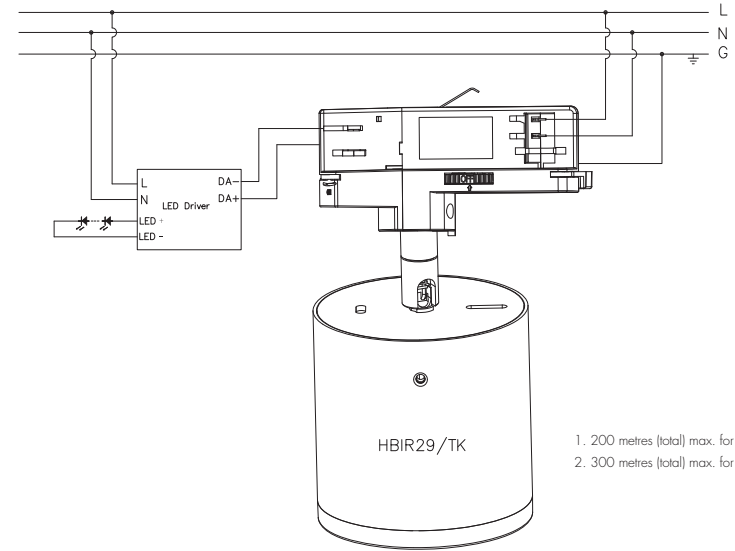
1. 200 metres (total) max. for 1mm² CSA (Ta = 50°C)
2. 300 metres (total) max. for 1.5mm² CSA (Ta = 50°C)
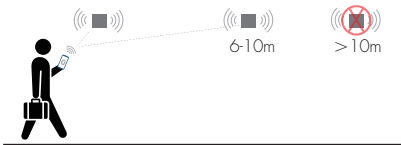
4. Detection Pattern

The data below is tested under following conditions:

- Single person walking;
- Sensor not connected to any driver that may have soft-on period;
- Testing temperature Ta = 20°C;
- The testing is conducted in an open and spacious indoor field, without noticeable obstacles or influences that may affect PIR performances.

A: Tangential movement   B: Radial movement

h = max.6m   h = max.6m

Tangential: max.10m   Radial: max.5m

insensitive → sensitive   insensitive → sensitive

Mount height	Tangential (A)	Radial (B)
2.5m	max 79m² (Ø = 10m)	max 20m² (Ø = 5m)
3m	max 79m² (Ø = 10m)	max 20m² (Ø = 5m)
4m	max 64m² (Ø = 9m)	max 20m² (Ø = 5m)
5m	max 50m² (Ø = 8m)	max 20m² (Ø = 5m)
6m	max 50m² (Ø = 8m)	max 20m² (Ø = 5m)

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Placement Guide and Typical Range

Smart Phone to Device Range

6-10m   >10m

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.

5. Additional Information / Documents

1. To learn more about detailed product features/funcvtions, 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 PIR Sensors installation and operation, please kindly refer to www.hytronik.com/download ->knowledge ->PIR 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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