

### Product Description

HIR60 & HIR60/R are Bluetooth 5.0 SIG mesh PIR motion sensors, designed with Zhaga D4i (Book 20 connection) that enables lighting designers/manufactures to freely connect to Zhaga Book 20 LED Drivers via plug'n'play. It's embedded with Bluetooth module, PIR sensor and also a daylight sensor, and yet comes with a surprisingly super-mini size! With Bluetooth wireless mesh networking, it makes communication between luminaires much easier without time-consuming hardwiring, which is always a headache especially for old buildings – you do not need any extra wirings to upgrade old buildings with smart lighting! Meanwhile, simple device setup and commissioning can be done via **Koolmesh™** app.


























HIR60

HIR60 with HA04







HIR60 with HA05

HIR60/R

### 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
-  Koolmesh Pro iPad version for on-site configuration
-  Grouping luminaires via mesh network
-  Scenes
-  Detailed motion sensor settings
-  Dusk/Dawn photocell (Twilight function)
-  Schedule to run scenes based on time and date
-  Astro timer (sunrise and sunset)
-  Staircase function (master & slave)
-  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
-  Continuous development in progress...

### Hardware Features

-  5-in-1: Bluetooth 5.0 + Zhaga + D4i + PIR motion sensor + Daylight sensor
-  Optional accessories for different mounting style
-  Super compact mini size
-  Plug'n'Play via Zhaga Book 20 connection
-  5-year warranty
-  IP65 rated design for HIR60/R
-  coming soon...
-  coming soon...

**Bluetooth 5.0 SIG mesh**



iOS 10.0 or later



Android 5.0 or later



Koolmesh Pro for iPad



for iOS



for Android



for iPad

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Web app/platform:  
iot.koolmesh.com



for Web

## Technical Specifications

Bluetooth Transceiver	
Operation frequency	2.4 GHz - 2.483 GHz
Transmission power	4 dBm
Range (Typical indoor)	10~30m
Protocol	 Bluetooth® 5.0 SIG Mesh

Environment	
Operation temperature	Ta: -20°C ~ 50°C
Storage temperature	-40°C ~ +70°C
Relative humidity	10 ~ 90%
IP rating	IP20

PIR Sensor Properties (HIR60 & HIR60/R)	
Sensor principle	PIR detection
Operation voltage	9.5~22.5VDC
Input current	Approx. 30mA
Detection range *	HIR60 Max installation height: 3m Max detection range (∅): 12m  HIR60/R Max installation height: 8m Max detection range (∅): 14m
Detection angle	360°

\* The detection range is heavily influenced by sensor placement (angle) and different walking paces. It may be reduced under certain conditions.

## Optional Accessories



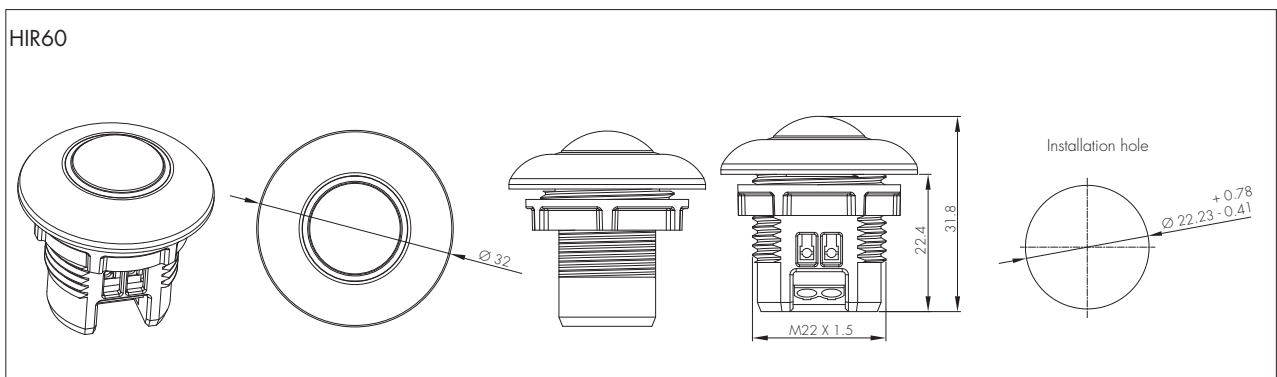
HA04



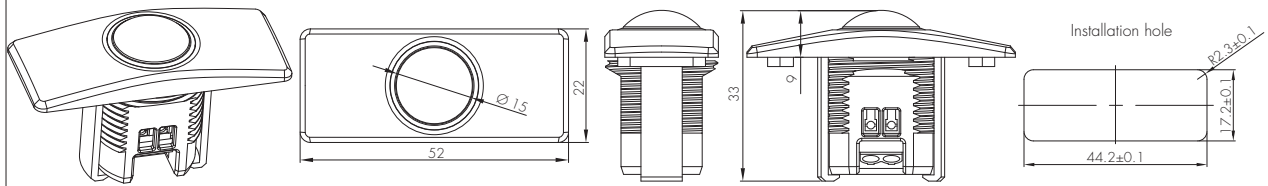
HA05



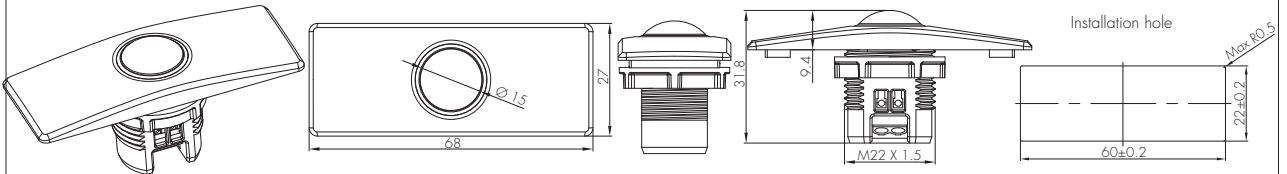
## Mechanical Structure & Dimensions



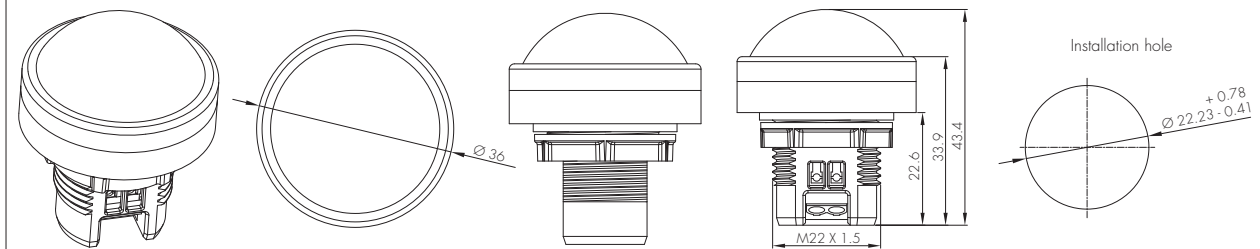
HIR60 with HA04



HIR60 with HA05



HIR60/R (IP65)



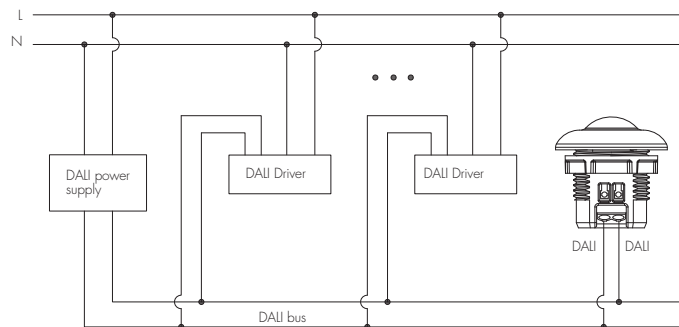
Wire Preparation



To make or release the wire from the terminal, use a screwdriver to push down the button.

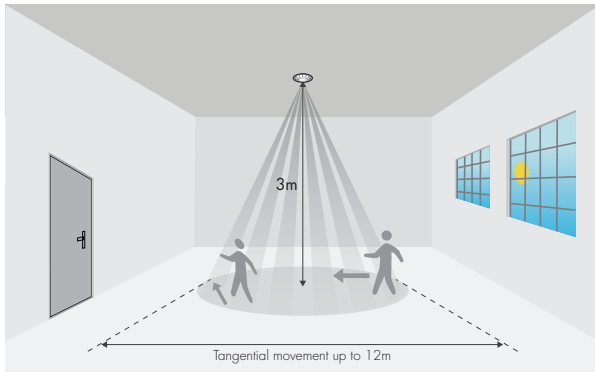
Wiring Diagram

DALI Driver

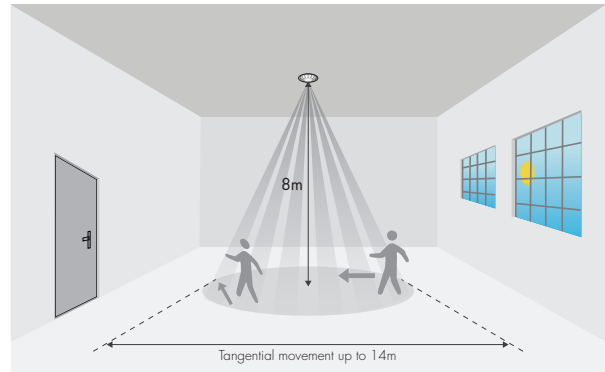


## Detection Pattern

### HIR60



### HIR60/R



\*The detection patterns are based upon 5km/h movement speed.

## 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](http://www.hytronik.com/download->knowledge->Introduction%20of%20App%20Scenes%20and%20Product%20Functions)
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](http://www.hytronik.com/download->knowledge->Bluetooth%20Products%20-%20Precautions%20for%20Product%20Installation%20and%20Operation)
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](http://www.hytronik.com/download->knowledge->PIR%20Sensors%20-%20Precautions%20for%20Product%20Installation%20and%20Operation)
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](http://www.hytronik.com/products/bluetooth%20technology->Bluetooth%20Sensors)
5. Regarding Hytronik standard guarantee policy, please refer to [www.hytronik.com/download ->knowledge ->Hytronik Standard Guarantee Policy](http://www.hytronik.com/download->knowledge->Hytronik%20Standard%20Guarantee%20Policy)

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