

2022-2023 FULL PRODUCT GUIDE







AN A

Hytronik has always been the industry leader in Sensors & Lighting Control since 2007, with integrated Marketing, Sales, R&D and Manufacturing.

HYTRONIK

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HYTRONIK

HYTRONIK[®] ENTERPRISE PROFILE

Hytronik Research & Development Center



Advanced Product Features



Typical Applications

For OEM Fixtures





Our value to customers:

\checkmark	Headquarter located in UK
\checkmark	Energy saving & Product, Solution and Service Provider
\checkmark	15 Years profession in lighting control industry
\checkmark	Server & Cloud based in Europe
\checkmark	24H online trouble-shooting & after-sale services
\checkmark	High R&D competence
\checkmark	Flexible & quick tailor-made design and production
\checkmark	Comprehensive Bluetooth 5.0 SIG mesh eco-system
\checkmark	One-stop solution for complete Modular Wiring System
\checkmark	Full local technical support
\checkmark	High performance vs. cost
\checkmark	High innovation rate
\checkmark	Fast response speed
\checkmark	Environment & Installation friendly
	5-Year warranty



6. Reception



7. Meeting Room









10. Garden



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Bluetooth[®] 5.0 SIG Mesh Eco-system

Hytronik is the market leader for motion sensor technology in the professional lighting industry. We deliver high quality controls to the high-end professional lighting manufactures worldwide. With our strong R&D competence, we are now gearing towards Bluetooth lighting control solutions and building up a complete ecosystem of Bluetooth products.

Our eco-system consists of motion sensors, LED drivers, emergency control gear, dimmers, gateway and other components such as touch panel and quick connection box. We also cooperate with Koolmesh, Casambi, Silvair and Enocean to provide a wider range of Bluetooth lighting solutions.



With server based in Europe, our cloud service supports remote control via gateway, emergency report generation, remote monitoring, and IoT features etc. Meanwhile, we are open for all kinds of customization possibilities at affordable prices, including the product, app, cloud and server.

With dedicated phone/tablet app and web platform, Hytronik Bluetooth solution caters for small-scale installations such as residential and large-scale installation in commercial and industrial applications. For new projects, or retrofit upgrade projects, the Bluetooth products have significantly reduced the labor cost for wiring thanks to the wireless mesh networking. Besides, not only does our powerful solution fulfill the challenging requirements in real application, what's more, the whole setup and commissioning process has been simplified with synergy of intuitive user interface and strong technical support from Hytronik team. Meanwhile, future maintenance and on-site troubleshooting has never been so quick, simple, and flexible!

Koolmesh's Bluetooth Chip -nRF52840

Koolmesh's Bluetooth system is built on our in-house developed module KMB02, in which the chip core is Nordic nRF52840. With the adoption of nRF52840, Koolmesh's system allows for powerful features such as:

Bluetooth 5.0 long range (30m in-door, 50m in open air)















Bigger memory storage (flash & RAM) for more advanced features...















NEW!

Data backup & recovery based on date/time

NEW!



Key Features & Capabilities

- NEW! S Quick setup mode & advanced setup mode
- NEW! 🔄 Web app/platform for project deployment & data analysis
- NEW! 🖳 Koolmesh Pro app on iPad for on-site configuration
- NEW! 📺 Floorplan feature to simplify project planning
- NEW! [*] Emergency report generation and diagnosis
- NEW! DALI-2 and D4i supported
- NEW! ⋛母 One-key device replacement
- NEW! 🔀 Device social relations check
- NEW! F Staircase function for quick primary & secondary setup
- NEW! OF Remote control via gateway support HBGW01
- NEW! (Heat map
- NEW! 🔊 Dynamic daylight harvest auto-adaptation
 - Grouping luminaires via mesh network
 - Scenes
 - Dusk/Dawn photocell (Twilight function)
 - Tri-level control
 - Daylight harvest
 - ় Circadian rhythm (Human centric lighting)
 - Push switch configuration
 - Detailed motion sensor settings
 - 🗰 Schedule
 - 🖕 Astro timer (sunrise and sunset)
 - Power-on status (memory against power loss)
 - 🔅 Offline commissioning
 - E Bulk commissioning (copy and paste settings)
 - Different permission levels via authority management
 - Network sharing via QR code or keycode
 - (b) Interoperability with Hytronik Bluetooth product portfolio
 - 🥱 Compatible with EnOcean BLE switches
 - Internet-of-Things (IoT) featured
 - Device firmware update over-the-air (OTA)
 - Continuous development in progress...







Fully support EnOcean self-powered switch module PTM215B (HBES01/W & HBES01/B)

Take a Closer Look into the Powerful Bluetooth Features



Wireless mesh-network grouping enables synchronized control with minimized labor hours and no hard-wiring hassles.

 ${\it Batch \ commissioning \ significantly \ saves \ labor \ hours - Once \ and \ for \ all!}$



3. Scenes setup and recall





- Recall by sensor trigger
- Recall by PUSH switch
- Static & Dynamic scene





2. Schedules & Astro-timer

- Support multiple timers
- Count-down timers
- Sunset & Sunrise timers



4.

Floorplan with emergency report generation

- Design layout on floorplan map
- Emergency management system
- Run emergency tests with automatic report generation





Held time Cations	Professional motion sensor settings
Hold time Settings	Sensitivity setting
Fade time 0.7s	Lux threshold settingHold-time and Stand-by time setting
-	Auto mode (Presence) / Semi-auto mode (Absence)
Sensor lock-up time 20.0s	 Fade time (soft-start & soft-ott) setup Daylight control prior to motion control
Hold time 7min 0s	
Hold time scene circadian >	
De define DUCU/meterstice autich for star divised	ON/OFF
Re-define PUSH/retractive switch functionalities!	ON/OFF
Re-define PUSH/retractive switch functionalities! Assign functionalities to different buttons according to different actions:	ON/OFF OFF only
Re-define PUSH/retractive switch functionalities! Assign functionalities to different buttons according to different actions:	ON/OFF OFF only ON only
Re-define PUSH/retractive switch functionalities! Assign functionalities to different buttons according to different actions:	ON/OFF OFF only ON only Recall this scene
Re-define PUSH/retractive switch functionalities! Assign functionalities to different buttons according to different actions: ingle press ON/OFF > Double press Scene: N/A >	ON/OFF OFF only ON only Recall this scene Sensor take over
Re-define PUSH/retractive switch functionalities! Assign functionalities to different buttons according to different actions: ingle press ON/OFF > Double press Scene: N/A > ress and hold Color temperature tuning >	ON/OFF OFF only ON only Recall this scene Sensor take over Not in use
Re-define PUSH/retractive switch functionalities! Assign functionalities to different buttons according to different actions: ingle press ON/OFF > Double press Scene: N/A > ress and hold Color temperature tuning >	ON/OFF OFF only ON only Recall this scene Sensor take over Not in use Brightness dimming
Re-define PUSH/retractive switch functionalities! Assign functionalities to different buttons according to different actions Wingle press ON/OFF > Nouble press Scene: N/A > Press and hold Color temperature tuning >	ON/OFF OFF only ON only Recall this scene Sensor take over Not in use Brightness dimming Color temperature tuning

• Drag and play!





Bluetooth 5.0 SIG Mesh Eco-system - - - Powerful Bluetooth Features



9.

Staircase function

- Simplified staricase setup
- Perfect replacement for RF grouping



8.

Super intuitive circadiam rhythm (Human Centric Lighting) control

- Visualized 24h Dim & CCT level arrangement
- Personalized adjustment on Dim & CCT curves
- Combined with motion sensor and lux control
- Drag and play!



10. Future-proof OTA firmware upgrade

Manage devices (8)

HBT01 8

Replace device

- Easy trouble-shooting on-site
- Quick project upgrade
- Easy project site maintanence

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▼Classroom (4)

нвто1 8

HBT03 9

PISUVCUF 01 11 PISUVCUF 10

11. One-key device replacement

- Automatically obtain the parameters from the previous device
- Reduce operation & maintenance response time

12.

Transfer ownership

Authrority & Permission management

- Different permission levels for different roles
- Network sharing through QR code / redeem code
- Ownership transfer from installer to project manager



Installer



Remote monitoring & data analysis via gateway

- Remote accessibility
- Energy consumption management
- Internet-of-Things (IoT) featured



Owner

Gateway HBGW01

Authorize



 \oplus





Workflow for New Projects



- Internet-of-Things (IoT) featured
- Enables remote access/monitoring
- Automatic report generation
- Data analysis & diagnosis

True Presence/Absence Detection Technology



In some applications such as office/meeting areas, users require a "true" presence motion detector. Traditional HF/PIR motion sensor cannot meet this requirement because the detection mechanism requires objects to move around to trigger, which is not favorable when people need to stand/sit statically for a period. There have been some so-called presence detection HF/PIR sensors in the market, but these so-called HF/PIR presence detection sensors are not "true" presence detectors, as these sensors detection mechanism is still based on minor-movements. When the person hardly moves the lights will turn off again after time-out, and in this case the person will need to move intentionally to keep refreshing the hold-time delay to avoid light suddenly switching off.



Hytronik has been seeking for a "true" presence technology that aims to bring the best experience for users. And we are glad to announce that thanks to the strong R&D capabilities, Hytronik launched our "PRO" series HF motion sensors, loaded with the latest developed TRUE detection technology. Our True Presence Detection "PRO" series HF sensor works to detect human breathing. No matter if the person sit/stand statically or turns their back to the sensor. The "PRO" series can accurately recognize presence and keeps the lights on all the time.

The "PRO" series are not only precisely accurate and sensitive, in the meanwhile the "PRO" series also behaves excellently in filtering interferences. Different kinds of false triggering sources in daily life (such as small animals, hidden waterpipes, tree leaf etc.) can be recognized and filtered by the sophisticated algorithm, with the aim of reducing false trigger chances as much as possible. Also, the "PRO" series are designed with robust antenna design which has strong resistance against all sorts of wireless interferences. 5G routers, GSM tower, RF etc. can all be coped with no trouble. The "PRO" series complies with latest RED standards.



DALI-2 Compliance



Hytronik's DALI-2 product portfolio includes HF/PIR motion sensor, LED driver, dimmer, touch panel etc. These DALI-2 products comply with IEC62386_101, 102, 103, 207, 209, 301, 303, 304... and Zhaga D4i. All Hytronik's DALI-2 products are tested, and the test reports are listed on DIIA website.

Meanwhile, DALI-2 supports downward compatibility to old version DALI, so Hytronik's DALI-2 products can also be used in previous/retrofit DALI projects as well.

Robust HF Sensors Design --- Anti-interference Technology



Hytronik's microwave motion sensor uses 5.8GHz high frequency (HF) antenna in the product design. With the increasing density of wireless environments such as 5G GSM tower and 5G Wi-Fi coverage, this has created extra challenges for sensor's operation because the air is shared by all kinds of wireless signals, and transmissions from any device at the similar frequency could potentially cause interference. The effects of interference which can be noticed by users are usually false triggering of sensors (turning on/off erratically), or lights staying on even after hold time etc.

To get around such tough environment, Hytronik has developed a new series of robust HF modules, designed to be loaded with our own special sophiscated software algorithms. These robust HF modules can withstand different types of wireless interferences in the real application. We believe this is the ultimate solution towards demanding installation environments in the future.



≽ Thanks to the improved resistance against wireless interference, the robust HF module is compliant to the latest RED standards.

With this powerful antenna adapted in our microwave sensors, it ensures stable and accurate performance even when installed in tough wireless environments.

	5G Wi-Fi Interference	5G GSM Tower Interference	Bluetooth Interference	RF Interference
	Wi-Fi		*	RF
Hytronik's new robust HF sensors	High resistance	High resistance	High resistance	High resistance
Hytronik's new robust Dual-Sense™ sensors	High resistance	High resistance	High resistance	High resistance
Traditional normal HF sensors	Low resistance	Low resistance	Low resistance	Low resistance

Photocell AdvanceTM (Pro-active Lux

Switching & Pro-active Daylight Harvesting)











Background information: For built-in type motion sensor, for a long time lux control has been a headache for OEM manufactures, because the artificial light emitted by the luminaire itself can affect the photocell/photodiode measurement, and as a result the lux reading from photocell/photodiode can be very far away from the real ambient lux level (actually in most cases, the artificial light feedback from the luminaire itself is so strong that the photocell/photodiode reaches to a saturated/blinded status and cannot perform at all).





For the photocell to read ambient lux level normally, the common practice requires OEM designer to drill a hole on the luminaire so that the photocell/photodiode can be exposed outside to reduce the effect from the artificial light emitted by the luminaire itself. However, this practice can be very troublesome and limited in real applications, because it obvisouly compromises on the aesthetics of luminaire design, and at the same time demands OEM manufactures to have very good control over mass production and QC process. This is not easy in real life, costing great amount of time and money in the end. Hence, many OEM manufactures are forced to take **Passive Lux Switching** solution, and old technology which allows the photocell/photodiode to only measure ambient lux level when the fixture is in OFF status. If the fixture is ON then the photocell/photodiode does not make any lux measurements to prevent false reading.

Obviously this is not an ideal solution, an example would be that – From dawn to morning, if there is constant movement beneath the sensor then the sensor will stay on all the time and the photocell/photodiode simply does not have a chance to check the ambient lux level. Even if the sun rises and the real ambient lux level is way above the preset lux threshold value, the sensor has no chance to switch the light off. This will cause excessive energy waste, and the user experience is not friendly.

Aiming to solve this "headache" and maximize on the energy saving, previously Hytronik have developed a new solution called <u>Active Lux Switching</u> (or 24h Daylight Monitoring), which is widely accepted and adopted by the industry. With such technology the photocell/photodiode can check ambient lux level on the moment the fixture transits from hold-time level into stand-by level, so that sensor can determine if the fixture goes to stand-by level or switches off. Also, during the stand-by level period the photocell/photodiode can still check ambient lux level at intervals, to determine if the fixture continues stand-by level or switches off.



Photocell Advance™ (Pro-active Lux Switching & Pro-active Daylight Harvesting)



Based on Active Lux Switching technology, Hytronik proudly announces good news to the market and formally introduces a brand-new technology called <u>Photocell Advance™</u> (also as we call <u>"Pro-active Lux Switching"</u> technology). Thanks to the latest <u>Photocell Advance™</u> (or <u>"Pro-active Lux Switching"</u>) technology, Hytronik has become the leading standard in the lighting control industry by enabling intelligent light fixtures to achieve:

Photocell/Photodiode can work perfectly when <u>completely placed</u> <u>inside</u> luminaire cover, without needing to drill a hole on the luminaire cover.



No extra components No drilling required

Sunrise

<u>Dusk/Dawn Photocell</u> – With the advanced <u>Pro-active Lux Switching</u> technology, Hytronik's motion sensors are also able to achieve that luminaire be automatically switched on at dusk and be automatically switched off at dawn, even without movement triggering.

Daylight Prior to Motion – At any time, as long as the ambient lux level exceeds the preset lux threshold setting, Hytronik's sensor will be able to switch off the luminaire even when the fixture is in ON status. During the whole process, the ambient lux measurement will not be affected by the artificial light emitted from the fixture itself.





<u>Pro-active Daylight Harvesting</u> – With the help of the powerful <u>Pro-active Lux Switching</u> technology, Hytronik has now made it possible for luminaires with built-in sensors to perform <u>Daylight Harvesting</u> (also widely referred to as "<u>Daylight Interaction</u>" or "<u>Daylight Regulation</u>"). Hytronik's HF sensors and PIR sensors that are <u>Pro-active Daylight Harvesting</u> featured have been widely accepted by the leading OEM manufactures globally, and has become the industry standard typically in UK, Scandinavia Region, Dach region, Benelux region, and Australia.

Additionally, Hytronik's Bluetooth App control has provided powerful tools to unlock potential functionalities surrounding the <u>Pro-active</u> <u>Daylight Harvesting</u> feature. One of it is called <u>Daylight Harvest Quick Setup</u> where a user is able to simply tick the checkbox to represent the luminaire's location against the window position, so that the daylight harvest setup is easily done without any complicated commissioning (in the past, daylight harvesting is a very professional application meant for lighting specialists only and not quite accessible by public users). Hytronik has patented this <u>Daylight Harvest Quick Setup</u> App feature globally and has made daylight harvesting unprecedentedly intuitive and convenient.

Hytronik's Patented App Feature: Daylight Harvest Quick Setup



Application Example (1): Corridor

- ✓ Dusk/Dawn Photocell
- Daylight Prior to Motion





At sunset, the <u>Dusk/Dawn Photocell</u> feature starts to work. When the ambient lux level is below the preset lux value, sensor will automatically turn on the light to dim level 10%, even if there is no movement around.

Between 17:30 to 19:00, when there is no movement around, light will stay at dim level 10% until people come at 19:00 and trigger the lights to 100% brightness level.



Standby Dimming Level: 10%;

Standby period: Infinity

Hold time: 10min; Daylight Threshold: 50lux;

After 21:30, when all the people left, the sensor will automatically go back and stay at dim level 10% with the expiration of hold-time 10min.



In the early morning, the <u>Dusk/Dawn Photocell</u> feature starts to work again. When the ambient lux level becomes above the preset lux value, sensor will automatically switch off the light. Thanks to the <u>Daylight Prior to Motion</u> feature, even if there is constant movement around during the process, the sensor will switch off the light accurately without any trouble.

Application Example (2): Office

- Pro-active Daylight Harvesting
- Daylight Prior to Motion



Before working hours, due to no movement around the light will stay off.



Between 12:00 to 15:00, the ambient lux level is continuously above 300lux so the light will stay off all the time (even with people moving around), and the sensor will automatically switch the light on again when the ambient lux level drops below 300lux preset value. The light will perform <u>Proactive Daylight Harvesting</u>, so that the light will adjust its output according to the ambient lux value.

Hold time: 30min; Daylight Threshold: 300lux; Standby Dimming Level: 10%; Stand-by time: 30min



People starts to work. At this moment the ambient lux level is below the preset 300lux value, and movement will trigger the light on. The light will perform **Pro-active Daylight Harvesting**, so that the light will adjust its output according to the ambient lux level.



Between 15:00 to 18:00, there is constant movement in the office. Due to the **Pro-active Daylight Harvesting** feature the light output will gradually dim up, and the sensor will eventually dim the light all the way up to 100% full brightness along with the decreasing ambient lux level.



Between 8:30 to 12:00, there is constant movement in the office. Due to the **Proactive Daylight Harvesting** feature the light output will gradually dim down, and the sensor will eventually switch the light off when the ambient lux level becomes above the preset lux value. Thanks to **Daylight Prior to Motion** feature, even if there is constant movement around during the process, the sensor will switch off the light accurately without any trouble.



At night, when there is completely no motion, the sensor will turn off the light after the expiration of hold-time and stand-by time.



Other Advanced Product Features



1. On/Off Control

These sensors provide simple switching of the light based upon occupancy. A daylight sensor is also built-in to prevent the light switching on when there is sufficient natural light.



With sufficient natural light, the light does not switch on when presence detected.



With insufficient natural light, the sensor switches on the light automatically when person enters the room.



The sensor switches off the light automatically after the hold-time when there is no motion detected.



2. Tri-level Control

Hytronik's tri-level dimming products offer 3 levels of light control: $100\% \rightarrow \text{dimmed light} \rightarrow \text{off}$, with settable time periods between each phase, as well dimming level and daylight threshold.

*All Hytronik's tri-level dimming products can also be configured as **<u>bi-level</u>** control (by setting the stand-by period to infinity), so that the light always remains in the dimmed mode in absence for areas where there are safety, security or enhanced comfort requirements.



With sufficient natural light, the light does not switch on when presence detected.



With insufficient natural light, the sensor switches on the light automatically when person enters the room.



After hold-time, the light dims to stand-by level.



The light switches off automatically after the stand-by period elapsed.



3. Daylight Harvest

Right time, right place and the right amount of light! **Daylight harvest** (Also known as **daylight regulating** or **daylight interaction**) is a must in the future lighting norms. The daylight sensor measures the available surrounding natural light and calculates how much artificial light is needed to reach the target lux level. The control output is passed to the drivers by DALI or 0/1-10V signals which then deliver the needed amount of light .

Now with Photocell Advance™ technology, daylight harvest can be performed behind the cover!

Other Advanced Product Features - - - Daylight Harvest



The light will not switch on when natural light is sufficient, even with motion detected.





The light switches on automatically

The light will be switched off when the ambient natural light is sufficient.



The light dims to stand-by brightness after hold-time and stays on the selected minimum dimming level.

HRC-11



The light turns on at full or dims to maintain the lux level. The light output regulates according to the level of natural light available.



The light switches off automatically after the stand-by period.

In the old days, to configure a daylight harvest application is not simple in real life, as it usually involves professional installers or lighting specialists with good lighting industry background and needs special equipment on site, which is not guite accessible by public users.

Aiming to simplify the daylight harvesting setup and make life easier for users, Hytronik has developed intuitive features that revolutionizes the commissioning processes --- Users can now easily commission daylight harvesting quickly and effortlessly!

Hytronik Special Feature 1:

Built-in type sensors and stand-alone sensors have different working logics when it comes to daylight harvesting. Built-in type motion sensors require "open loop" daylight harvesting to work properly, and stand-alone type motion sensors require " closed loop" daylight harvesting to work properly. Based on different product types, Hytronik has prepared the appropriate open loop/closed loop program before leaving factory so user does not need to worry about whether he should set up open loop or closed loop.

Hytronik Special Feature 2:

Hytronik sensor can **record** its ambient lux level as the new daylight harvesting target lux level. This is extremely useful because user can adjust the luminaire's output by himself until he found a comfortable/ideal lux value

on the table/ground, then the user can record this lux value via remote controller or Bluetooth app, so that the daylight harvest is done!



Bluetooth app



Hytronik Special Feature 3:

The lux reading from sensor are based on the surrounding lux value around the physical location of the sensor product, rather than the lux value on the table/ground. However, in real applications, user's experience is based on the table/ground most of the time. To solve this problem, Hytronik provides **"calibration"** feature in the Bluetooth app. Before calibration, the target daylight harvest lux value reflects the lighting on ceiling level. But after the calibration, the target daylight harvest lux level will be close to the true experience on the table/ground level. This greatly enhances user experiences, while no complicated commissioning/knowledge will be needed – just done in the app with one touch on "calibration" button!

Hytronik Special Feature 4:

The daylight harvest lux value setup requires user to have a clear target in mind (for example, 500lux as target daylight harvest lux). But not all the users know what lux value should be set as target. To solve this problem, Hytronik provides two solutions to help with the setup.

a) "Daylight Harvest 24h Auto-config" feature:

Sometimes, user may find it difficult/troublesome to set daylight harvesting target lux level after installing a daylight harvest control sensor. This feature is on remote controller HRC-11 key botton or Bluetooth app, where users can select different time

period options (we suggest to select 24h), and once the sensor receives the learning command the sensor will keep the light constantly on during the entire period. After the period expires, the sensor will **automatically set the optimal target lux level** according to its installation location and ambient lux environment, and user does not need to do any operations during the process!



b) "Daylight Harvest Quick Setup" feature:

This is a Hytronik's patented feature in Bluetooth app, where a user is able to **simply tick the check box** to represent the luminaire's location against the window position, so that the daylight harvest is simply done without any complicated commissioning! This super intuitive user interface has made daylight harvesting unprecedentedly easy and convenient!

Hytronik's Patented App Feature: Daylight Harvest Quick Setup



4. Synchronization Control

In many cases, several sensors are connected together to control the same fixtures. This requirement places extra demand on the reliability and noise handling capability of such sensors. Hytronik offers this feature with specially designed hardware & software to ignore such interferences and ensure stable operation.





5. RF (Primary & Secondary Control)

This is a combination of motion sensor and RF radio wave wireless transmission, which is a perfect solution for retrofit projects or in areas where wiring for controls is very limited, such as car parks. The motion detected by the transmitter unit can be passed onto other pre-defined receiver units through RF transmission. The RF signal can transmit up to 30 meters indoor and 100 meters in open areas.

1) Two styles of RF commissioning methods:



RF grouping (Rotary Switch Commissioning)

RF grouping (Teach and Learn Commissioning)

For smaller projects (up to 16 groups within the same transmission range) we offer a rotary switch group selector which allows commissioning by simply selecting the same number on all the units required to talk to each other.

For Larger projects or where more flexibility is required, we employ a "teach and learn" system where commissioning is carried out by use of a remote-control handset. In this system the number of groups is not limited.

Other Advanced Product Features - - - RF Control

With sufficient natural light, the sensor is not triggered by motion.

2) Typical Applications for Car Park:

With insufficient natural light, the sensor is triggered by motion, the transmitter switches on the light and send RF signal to all salves.



After the hold-time, the whole group of lamps dim to pre-defined dimming level when no movement detected.

Application: HC018V/RF as transmitter and HC023RF / HC024RF as receiver; or SAM8 / SAM11/I with HC038V / HCD038 as transmitter, HC034RF as receiver. Note: the lights go off directly after hold-time when controlled by HC023RF.



While the 1st sensor detects motion on the 1st floor, it switches the light on 100% and sends signal to all receiver units. All HC024RF on the 1st floor turn on 100% and the HC028V/RF on the 2nd floor goes to stand-by level.



When walks to the 3rd floor, the 3rd HC028V/RF switches the light on 100%. All HC024RF on the 3rd floor turn the light on 100% and the HC028V/RF on the 4th floor goes to stand-by level. Meanwhile, the lights on the 1st floor are dimmed to stand-by level after hold-time.



The person walks to the 2nd floor, the 2nd HCO28V/RF switches the light on 100%. All HCO24RF on the 2nd floor turn the light on 100% and the HCO28V/RF on the 3rd floor goes to stand-by level.



The person walks to the 4th floor, the 4th HC028V/RF switches the light on 100%. All HC024RF on the 4th floor turn the light on 100% and the next HC028V/RF goes to stand-by level. Meanwhile, all sensors on the 1st floor turn the light off after stand-by period, and all lights on the 2nd floor dim to stand-by level after hold-time.

Application: HC028V/RF as both transmitter and receiver, HC023RF / HC024RF as receiver; or SAM8 / SAM11/I as both transmitter and receiver in the staircase, HC034RF as receiver in the corridor.
Note: the lights in the corridor go off directly after hold-time when controlled by HC023RF.



6. Circadian Rhythm Control (Human Centric Lighting)

Different from other complex lighting systems, Hytronik offers a simple de-centralized human centric lighting solution for offices, schools and hospitals with the tunable white feature. The solution is based on Bluetooth together with an intuitive and portable app, and does not require any complicated PC tools to set up and configure.

The controlled light output can enhance a user's day-to-day mood, wellbeing, productivity and attention levels. Users can simply choose our pre-programmed curves in the app, or create a new curve with color temperature (CCT) and brightness automatically changing according to the time of day.



Office Application



The light switches on automatically with presence when natural light is insufficient.



The light turns on at full or dims to maintain the lux level. The light output regulates accroding to the level of natural light available.



21:00

The light switches off completely after stand-by time when there is no movement detected.

Health Care Application





7. One-key Commissioning

In real-life applications, most of the time all sensor parameters within a same area are needed to have identical sensor parameter setups, for example, same hold-time setp, same stand-by period setup, same daylight sensor setup etc. The use of one-key commissioning feature would save significant time and work for installer and prevent from having to do the same settings to every sensor one by one.

Press "Start" button on the remote controller HRC-11 to program, and then select one parameter setting from "Detection range", "Daylight threshold", "Hold-time", "Stand-by time", "Stand-by dimming level" and press "Memory" button to save this set of parameter settings programmed in the remote controller HRC-11. Then the user will only need to press button "Apply" to set the settings to each sensor unit(s). One-key commissioning is quick, simple, user-friendly, and flexible!



Shift

ON

OFF

Shift

Start

Tri-level

100%

100 L ux

2 Lux

30 s

Test

2s

10s

0s

24h

10%

HF

Learn Erase

8. Twi-light Mode

There are occasions when the application does not require motion sensor detection and just wants the motion sensor to act as a daylight sensor only. Twi-light is the right feature to serve for such purposes! A press on the "Twi-light" button on the remote controller HRC-11 would disable the motion sensor function, while the function of the photocell is still working and able to perform dusk/dawn switching & daylight harvesting (where applicable).

Twilight

SEMI-AUTO

AUTO

Twilight

Power

80%

Apply

Master

50%

500 L ux

50 Lux

15 min

10 min

30 min

10 min

4h

30%

HF+PIR

RX 100%

nsor off

Power

100%

Memory

Harvest

75%

300 Lux

10 Lux

5 min

1 min

5 min

1 min

12h

20%

PIR

Transmit

Scene prog.

Detection range & Sensor function V

Daylight threshold V

Hold-time 🔻

Stand-by time 🔻

Stand-by dimming level & Auto-config.

Dual tech & RF mode V

Send

RESET

CCT+

+

Brightness CCT-

10%

° 👁

Disable

30 min

20 min

1h +∞

30s

50%

HF/PIR

RX STBY%





9. Semi-auto Mode (Absence Detection)

It is easy to forget to switch off the light, in office, corridor, even at home. And in many other cases, people do not want to have a sensor to switch on the light automatically, for example, when people just quickly pass-by, there is no need to have the light on. The solution is to apply this "absence detector": motion sensor is employed, but only activated on the maunal press of the push switch, the light keeps being ON in the presence, and dims down in the absence, and eventually switches off in the long absence.

This is a good combination of sensor automation and maunal override control, to have the maximum energy saving, and at the same time, to keep efficient and comfortable lighting.



The light does not switch on when there is presence being detected.



Short push to activate the sensor and switch on the light



The light turns on full, and the sensor stays in sensor mode.



The light keeps being ON during the presence.



People left, the light dims to stand-by level after the hold-time.



The light switches off automatically after the stand-by period elapses.

Manual Override:

The sensor reserves the access of manual override function for end-user to switch on/off, or adjust the target lux level by push-switch, which makes the product more user-friendly and offers more options to fit some extra-ordinary demands:

* Short Push (<1s): on/off function;

- On → Off: the light turns off immediately and cannot be triggered ON by motion until the expiration of pre-set hold-time. After this period, the sensor goes back to normal sensor mode.
- Off \rightarrow On: the light turns on and goes to sensor mode, no matter if ambient Lux level exceeds the daylight threshold or not.
- * Long Push (>1s): adjust the target lux level by turning the light up or down. Both the adjustment on App/RC and push switch can overwrite each other, the last adjustment remains in memory.

Note: if end-user do not want this manual override function, just leave the "push" terminal unconnected to any wire.

Note: end-user can choose either absence detection (semi-auto mode) or manual override for application. Default function is manual override.



10. Dual-Sense[™] Technology

Microwave (HF) and PIR are the most commonly adapted detection technologies in the lighting control industry. However both detection technologies have their own advantages and disadvantages.

The aim of Hytronik's Dual-Sense™ technology is to make use of the advantages and bypass the disadvantages.



Advantages:

- * Sensitive to minor motion;
- * Does not require any drillings on the fixture;
- * Can be reflected by objects and hence covering big detection area:
- * Resilient to heat source, smoke and air conditioner.

Disadvantages:

- * Penetrate walls, pick up motions outside of the office area;
- * Back wave detection, false trigger by motion from ceiling behind;
- * Can be false triggered by ventilation fans, elevators etc. in industrial application.



- * No penetration, confined detection area;
- * Sensitive to tangential movement;
- * Resilient to motion object which has no heat radiation.

Disadvantages:

Advantages:

- * Can be false triggered by air conditioner, smoke and other types of heat sources;
- * The performance is highly dependent on ambient temperature and different seasons.

Dual-Sense™ technology combines both HF and PIR together, which provides 4 optional detection modes via DIP switch or remote controller:

1) HF only

2) PIR only

3) Either HF or PIR – When either detector is triggered, the motion is considered valid and the light will turn on. This is for maximizing the detection capability.

4) Both HF & PIR – Only when both detectors are triggered, the motion is considered valid and the light will turn on. This is for maximizing the detection accuracy and decreasing the detection capability to prevent the sensor from false trigger by heat source, air conditioner, ventilation vans, elevators etc.

This **Dual-Sense™** technology gives installers the flexibility to adjust the sensor on the project, an easy way to trouble shoot onsite. Dual-sense is the ultimate and powerful solution to meet every practical need in real life.

11. Highlight Firmware Features



Zero-cross Relay Operation

Our intelligent software design means our sensors switch the load right at the zero-cross point to minimise inrush current passing through the relay contact point. This enables the maximum load and life-time of the relay to be achieved.





Memory Against Loss of Power





Soft-on & Soft-off

Hard on/off switching of the light can be uncomfortable to the eyes. Our built-in soft-on & soft-off feature offers easy-on-the-eye operation of the light fixtures and gives a more elegant feel to the lit environment normally associated with high-end lighting controls. Soft-on & Soft-off also gives less damages to LED driver and help to expand the LED driver's lifespan.

Typical Recommended Applications

Component selection is part of the skill and creativity of the luminaire design engineer, however the illustrations below serve as a guide to the typical applications to which the featured product may be suited, and appear next to relevant products through this brochure.



LED Panels or 'Troffers'

Recessed luminaires for false ceilings typically require control gear products with insulated terminals and cord restraint for safe installation in the ceiling void. Antenna integrations are possible, but usually require comprise with complicated assembly. Hytronik offer discrete flush mount sensors which can be neatly and easily situated next to the luminaire. Further information on our suited product ranges can be found on our website or stand-alone brochure.

Utility Luminaires or Bulkheads

These products usually have restricted space and/or demanding thermal requirements. There are usually also many variants to cover in a given product range whilst trying to remain within a competitive budget. Hytronik serves this customer base and many clients already benefit from our integrated control gear, occupancy sensing and daylight sensing solutions.





This style represents a wide range of luminaire styles from vapor proof/tri-rated/IP-65 style to utility low-bay batten fixtures and high end architectural suspended fixtures. In terms of control gear the requirements and demands are similar: low profile and thermally robust.



High Power Flood Lights & High Bay Fixtures

These fixtures usually demand a long range sensor in a small space or a means of external mount in an IP54/65 rated package. This brochure covers sensors meant for internal mounting and IP20 'bolton' style. For sensors which are IP54/IP65 rated and suitable for externally mounting to the fixture, please refer to our website or stand-alone brochure.



Commercial Lighting

Commercial applications include: car park, hospital, healthcare center, school, shops, hotel, office, meeting room, staircase, corridor etc.

Commercial luminaires present interesting engineering challenges when adding occupancy and lighting controls, with wiring restrictions usually constricting the budgets to provide a reasonable solution. Hytronik's range of sensor selections provide the perfect solution for cost effective functionality and accuracy.

Industrial Lighting

Industrial applications include: warehouse, equipment plant, factory plant etc.

Industrial luminaires mounting infrastructure and wiring limitations demand sensors with innovative and flexible mounting options. Hytronik's solutions provide the designer with freedom to select and implement lighting controls in the most convenient and cost effective manner.





Domestic Lighting

Domestic applications include: residential areas such as private apartment, private house etc.

Great things come in small packages, and the Hytronik's dimmer series is no exception. Whether used for new build, retrofit projects or for lighting manufactures to add intelligent control to standard lighting fixtures. With the synergy of Bluetooth mesh technology and gateway & app support, our extremely versatile range of products does it all!

Retrofit Upgrade

Hytronik offers an extended range of products to cater for upgrading existing installations. Simple retrofit devices for instant energy savings to advanced controls utilizing daylight offering enhanced comfort and further energy savings, there is a product to suit every budget.

Furthermore, Hytronik's Bluetooth series and RF series products have significantly reduced the labor costs for wiring thanks to the wireless grouping technology.










Motion Sensors

Built-in Integrated Design for OEMs

*



(12m~15m height)

Overview: Bluetooth 5.0 Mesh Enabled Sensors (with App)

			Output		Detection Technology	Daylight Sensor		True Presence Detection	Install Height		
٢.	EW! HOO5SBT/PRO	220-240Vac	On/Off 300VA/400W		HF (New Robust Antenna)	Photocell Advance™	\checkmark	\checkmark	Low-bay max. 3m	IP20	49
N	HC419SBT/PRO	120-277Vac	On/Off 350VA/500W		HF (New Robust Antenna)	Photocell Advance™			Low-bay max. 3m	IP20	49
	HC005S/BT	220-240Vac	On/Off 300VA/400W		HF (New Robust Antenna)	Photocell Advance™			Low-bay max. 6m	IP20	49
	HC419S/BT	120-277Vac	On/Off 350VA/500W		HF (New Robust Antenna)	Photocell Advance™	\checkmark		Low-bay max. 6m	IP20	49
NE	HC005SBT/H	220-240Vac	On/Off 300VA/400W		HF (New Robust Antenna)	Photocell Advance™	\checkmark		High-bay max. 15m	IP20	50
N	HC419SBT/H	120-277Vac	On/Off 350VA/500W		HF (New Robust Antenna)	Photocell Advance™	\checkmark		High-bay max. 15m	IP20	50
2	HCD405BT/PRO	220-240Vac	DALI-2 Tri-level Control Daylight Harvest Circadian Rhythm 30mA Power Supply	\checkmark	HF (New Robust Antenna)	Photocell Advance™	\checkmark	\checkmark	Low-bay max. 3m	IP20	51
Γ.	HCD405/BT	220-240Vac	DALI-2 Tri-level Control Daylight Harvest Circadian Rhythm 30mA Power Supply	\checkmark	HF (New Robust Antenna)	Photocell Advance™			Low-bay max. 6m	IP20	51
٢,	HCD405BT/H	220-240Vac	DALI-2 Tri-level Control Daylight Harvest Circadian Rhythm 30mA Power Supply	\checkmark	HF (New Robust Antenna)	Photocell Advance™	\checkmark		High-bay max. 15m	IP20	52
٢	HIR60	9.5-22.5Vdc Current Consumption Max. 30mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20 Tri-level Control Daylight Harvest Circadian Rhythm	\checkmark	PIR	Photodiode	Active Lux Switching		Low-bay max. 3m	IP20	54

Overview: Bluetooth 5.0 Mesh Enabled Sensors (with App)

	5	Input	Output	Bluetooth 5.0 Mesh	Detection Technology	Daylight Sensor	Pro-active Lux Switching	True Presence Detection	Install Height	IP Rate	Page
2	EW! HIR60 with HA04	9.5-22.5Vdc Current Consumption Max. 30mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20 Tri-level Control Daylight Harvest Circadian Rhythm	\checkmark	PIR	Photodiode	Active Lux Switching		Low-bay max. 3m	IP20	54
٢	EW! HIR60 with HA05	9.5-22.5Vdc Current Consumption Max. 30mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20 Tri-level Control Daylight Harvest Circadian Rhythm		PIR	Photodiode	Active Lux Switching		Low-bay max. 3m	IP20	54
2	EW! HIR60/R 8	9.5-22.5Vdc Current Consumption Max. 30mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20 Tri-level Control Daylight Harvest Circadian Rhythm	\checkmark	PIR	Photodiode	Active Lux Switching		Mid-bay max. 12m	IP65 (Facial/Lens Part Only)	54
N	HTYOI	220-240Vac	On/Off 300VA/400W	√ (Tuya)	HF (New Robust Antenna)	Photodiode			Low-bay max. óm	IP20	55
٢	SAM15/TY SAM15/TY Sturia	12Vdc	0-10V Zhaga Book 18 Tri-level Control	√ (Tuya)	HF (New Robust Antenna)	Photodiode			High-bay max. 15m	IP65	57
N	EW! HC503S/TY	12Vdc	0-10V	√ (Tuya)	HF (New Robust Antenna)	Photodiode			High-bay max. 15m	IP65	55
N	EW! HC005S/CA	220-240Vac	On/Off 400VA/800W	√ (Casambi)	HF (New Robust Antenna)	Photodiode			Low-bay max. óm	IP20	55
	HIR60/SV SILVAIR	9.5-22.5Vdc Current Consumption Max. 30mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20 Tri-level Control Daylight Harvest	√ (Silvair)	PIR	Photodiode	Active Lux Switching		Low-bay max. 3m	IP20	56
	HIR60/SV with HA04	9.5-22.5Vdc Current Consumption Max. 30mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20 Tri-level Control Daylight Harvest	√ (Silvair)	PIR	Photodiode	Active Lux Switching		Low-bay max. 3m	IP20	56

Overview: Bluetooth 5.0 Mesh Enabled Sensors (with App)

	Input		Bluetooth 5.0 Mesh	Detection Technology	Daylight Sensor		True Presence Detection			Page
HIR60/SV with HA05	9.5-22.5Vdc Current Consumption Max. 30mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20 Tri-level Control Daylight Harvest	√ (Silvair)	PIR	Photodiode	Active Lux Switching		Low-bay max. 3m	IP20	56
HIRGO/SV/R SILVAIR	9.5-22.5Vdc Current Consumption Max. 30mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20 Tri-level Control Daylight Harvest	√ (Silvair)	PIR	Photodiode	Active Lux Switching		Mid-bay max. 12m	IP65 (Facial/Lens Part Only)	56



6	Overvie	ew: Se	nsors wi	th Tr	ue Pres	sence	/Abs	ence	e Det	ectio	n
	2	Input	Output	Bluetooth 5.0 Mesh	Detection Technology	Daylight Sensor	Pro-active Lux Switching	Install Height	Dip-Switch Settings	Remote Controller	Page
NE	HC005SBT/PRO	220-240Vac	On/Off 300VA/400W		HF (New Robust Antenna)	Photocell Advance™		Low-bay max. 3m			49
NE	N! HC419SBT/PRO	120-277Vac	On/Off 350VA/500W		HF (New Robust Antenna)	Photocell Advance™	\checkmark	Low-bay max. 3m			49
NE	N! HCOO5S/PRO	220-240Vac	On/Off 400VA/800W		HF (New Robust Antenna)	Photocell Advance™		Low-bay max. 3m	\checkmark		50
NE	N! HC419S/PRO	120-277Vac	On/Off 500VA/1000W		HF (New Robust Antenna)	Photocell Advance™		Low-bay max. 3m	\checkmark		50
NE	N! HCD405BT/PRO	220-240Vac	DALI-2 Tri-level Control Daylight Harvest Circadian Rhythm 30mA Power Supply	\checkmark	HF (New Robust Antenna)	Photocell Advance™		Low-bay max. 3m			51
NE	N! HCD418D2/PRO	220-240Vac	DALI-2 Tri-level Control Daylight Harvest 50mA Power Supply		HF (New Robust Antenna)	Photocell Advance™	\checkmark	Low-bay max. 3m	\checkmark	√ HRC-11	52
NE	HCD405D2/PRO	220-240Vac Current Consumption Max. 2mA from DALI Bus	DALI/DALI-2 Command		HF (New Robust Antenna)	Photodiode		Low-bay max. 3m			53
NE	W! HC419V/PRO	120-277Vac	0-10V Tri-level Control Daylight Harvest 500VA/1000W		HF (New Robust Antenna)	Photocell Advance™	\checkmark	Low-bay max. 3m	\checkmark	√ HRC-11	56
NE	N! HC005SVFC/PRO	220-240Vac	On/Off Volt-Free 3.6A @ <240Vac 2A @ <48Vdc		HF	Photocell Advance™	\checkmark	Low-bay max. 6m	\checkmark		59

Overview: On/Off series

//												
	<u>v</u>				Detection Technology	Daylight Sensor		True Presence Detection		Dip-Switch Settings		
1	HC005SBT/PRO	220-240Vac	On/Off 300VA/400W	\checkmark	HF (New Robust Antenna)	Photocell Advance™		\checkmark	Low-bay max. 3m		IP20	49
2	HC419SBT/PRO	120-277Vac	On/Off 350VA/500W		HF (New Robust Antenna)	Photocell Advance™	\checkmark		Low-bay max. 3m		IP20	49
	HC005S/BT	220-240Vac	On/Off 300VA/400W		HF (New Robust Antenna)	Photocell Advance™	\checkmark		Low-bay max. 6m		IP20	49
	HC419S/BT	120-277Vac	On/Off 350VA/500W		HF (New Robust Antenna)	Photocell Advance™			Low-bay max. 6m		IP20	49
N	EW! HCOO5SBT/H	220-240Vac	On/Off 300VA/400W		HF (New Robust Antenna)	Photocell Advance™	\checkmark		High-bay max. 15m		IP20	50
N	HC419SBT/H	120-277Vac	On/Off 350VA/500W		HF (New Robust Antenna)	Photocell Advance™	\checkmark		High-bay max. 15m		IP20	50
N	HC005S/PRO	220-240Vac	On/Off 400VA/800W		HF (New Robust Antenna)	Photocell Advance™	\checkmark		Low-bay max. 3m	\checkmark	IP20	50
N	HC419S/PRO	120-277Vac	On/Off 500VA/1000W		HF (New Robust Antenna)	Photocell Advance™	\checkmark		Low-bay max. 3m	\checkmark	IP20	50
N	EW! HC005S/H	220-240Vac	On/Off 400VA/800W		HF (New Robust Antenna)	Photocell Advance™			High-bay max. 15m	\checkmark	IP20	51
N	EW! HC4195/H	120-277Vac	On/Off 500VA/1000W		HF (New Robust Antenna)	Photocell Advance™			High-bay max. 15m	\checkmark	IP20	51
N	EW! HTYOI	220-240Vac	On/Off 300VA/400W	√ (Тиуа)	HF (New Robust Antenna)	Photodiode			Low-bay max. 6m		IP20	55
N	HC005S/CA	220-240Vac	On/Off 400VA/800W	√ (Casambi)	HF (New Robust Antenna)	Photodiode			Low-bay max. 6m	\checkmark	IP20	55
1	EW! HC0075/I	220-240Vac	On/Off 300VA/400W		HF (New Robust Antenna)	Photocell Advance™			Low-bay max. 6m	\checkmark	IP20	57

Overview: On/Off series

	2	Input	Output	Bluetooth 5.0 Mesh	Detection Technology	Daylight Sensor	Pro-active Lux Switching	True Presence Detection	Install Height	Dip-Switch Settings	Remote Controller	IP Rate	Page
4	HC007S	220-240Vac	On/Off 300VA/400W		HF (New Robust Antenna)	Photodiode			Low-bay max. 6m			IP20	58
	HC005S/I	220-240Vac	On/Off 400VA/800W		HF (New Robust Antenna)	Photocell Advance™			Low-bay max. 6m	\checkmark		IP20	58
	HC005S	220-240Vac	On/Off 400VA/800W		HF (New Robust Antenna)	Photodiode			Low-bay max. 6m	\checkmark		IP20	58
	HC005S/L	220-240Vac	On/Off 400VA/800W		HF (New Robust Antenna)	Special PD (IR Only)	Active Lux Switching		Low-bay max. 6m	\checkmark		IP20	58
	HC419S	120-277Vac	On/Off 1000VA/1600W		HF	Photodiode			Low-bay max. 6m			IP20	59
	HC009S	220-240Vac	On/Off 400VA/1200W		HF	Photodiode			Low-bay max. 6m			IP20	59
N	EW! HC005SVFC/PRO	220-240Vac	On/Off Volt-Free 3.6A @ ≤240Vac 2A @ ≤48Vdc		HF	Photocell Advance™			Low-bay max. 6m	\checkmark		IP20	59
	HC501S	12-48Vdc	On/Off 12V @ ≤10A 48V @ ≤2A		HF	Photodiode			Low-bay max. 6m	\checkmark		IP20	59
14	HC012S	220-240Vac	On/Off 400VA/800W		HF (New Robust Antenna)	Photodiode			Low-bay max. 6m			IP20	60
N	HC012S/RC05	220-240Vac	On/Off 400VA/800W		HF (New Robust Antenna)	Photodiode			Low-bay max. 6m		√ HRC-05	IP20	60
	HC023RF	220-240Vac	On/Off 400VA/1200W		HF					Rotaty switch		IP20	62
	HC423RF	120-277Vac	On/Off 500VA		HF					Rotaty switch		IP20	63

Overview: 0/1-10V Output (tri-level dimming / daylight harvest)

C	Uve	erviev	v: 0/ 1-	100	Oup	JT (fri-lo	evel d	Immir	ng / c	layligh	if harv	vest)
	2	Input	Output	RF Frequency	Detection Technology	Daylight Sensor	Pro-active Lux Switching	True Presence Detection	Install Height	Dip-Switch Settings	Remote Controller	IP Rate	Page
N	HC419V/PRO	120-277Vac	0-10V Tri-level Control Daylight Harvest 500VA/1000W		HF (New Robust Antenna)	Photocell Advance™	\checkmark		Low-bay max. 3m	\checkmark	√ HRC-11	IP20	56
	HC019V/I	220-240Vac	1-10V Tri-level Control 800VA/1200W		HF	Photocell Advance™			Low-bay max. óm	\checkmark		IP20	60
	HC419V/I	120-277Vac	1-10V Tri-level Control 1000VA/1600W		HF	Photocell Advance™			Low-bay max. óm	\checkmark		IP20	61
	HC019V/DH	220-240Vac	1-10V Daylight Harvest 800VA/1200W		HF	Photocell Advance™			Low-bay max. óm	\checkmark	√ HRC-11	IP20	61
	HC419VRC/DH	120-277Vac	1-10V Daylight Harvest 1000VA/1600W		HF	Photocell Advance™			Low-bay max. óm	\checkmark	√ HRC-11	IP20	61
	HC018V	220-240Vac	1-10V Tri-level Control 800VA/2000W		HF	Photodiode			Low-bay max. 6m			IP20	61
	HC419VRC	120-277Vac	1-10V Tri-level Control 1000VA/1600W		HF	Photodiode	Active Lux Switching		Low-bay max. 6m	\checkmark	HRC-05	IP20	62
	HC419V	120-277Vac	1-10V Tri-level Control 1000VA/1600W		HF	Photodiode			Low-bay max. 6m			IP20	62
	HC419V/H	120-277Vac	0/1-10V Tri-level Control Daylight Harvest 500VA/1000W		HF (New Robust Antenna)	Photocell Advance™	\checkmark		High-bay max. 15m	\checkmark	√ HRC-11	IP20	57
	HC028V/RF	220-240Vac	1-10V Tri-level Control 400VA/1200W	√ Transceiver 433MHz/ 868MHz	HF	Photodiode	Active Lux Switching		Low-bay max. 6m	Also with rotaty switch		IP20	62

Overview: 0/1-10V Output (tri-level dimming / daylight harvest)

	Ů.	Input	Output	RF Frequency	Detection Technology	Daylight Sensor	Pro-active Lux Switching	True Presence Detection	Install Height	Dip-Switch Settings	Remote Controller	IP Rate	Page
	HC024RF	220-240Vac	1-10V Tri-level Control 400VA/1200W	√ Receiver 433MHz/ 868MHz						\checkmark Also with rotaty switch		IP20	63
	HC428V/RF	120-277Vac	1-10V Tri-level Control 500VA	√ Transceiver 915MHz	HF	Photodiode	Active Lux Switching		Low-bay max. 6m	√ Also with rotaty switch		IP20	63
	HC424RF	120-277Vac	1-10V Tri-level Control 500VA	√ Receiver 915MHz						Also with rotaty switch		IP20	63
N	EW! SAM15/TY 3 CON	12Vdc	0-10V Zhaga Book 18 Tri-level Control		HF (New Robust Antenna)	Photodiode			High-bay max. 15m			IP65	57
N	SAM15/RC05	12Vdc	0-10V Zhaga Book 18 Tri-level Control		HF	Photodiode			High-bay max. 15m		√ HRC-05	IP65	57
N	EW! HC503S/TY 3 CORT CORT CORT CORT CORT CORT CORT CORT	12Vdc	0-10V		HF (New Robust Antenna)	Photodiode			High-bay max. 15m			IP65	55
N	EW! HC503S	12Vdc	0-10V		HF	Photodiode			High-bay max. 15m		√ HRC-05	IP65	60

verview: DALI & DALI-2 Output (tri-level dimming / daylight harvest)

U	Input	Output	Built-in Program	Tunable White Control	Bluetooth 5.0 Mesh	Detection Technology	Daylight Sensor	Pro-active Lux Switching	True Presence Detection	Install Height	Dip-Switch Settings	Remote Controller	IP Rate	Page
NEW! HCD405BT/PRC	220-240Vac	DALI-2 30mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm	\checkmark		HF (New Robust Antenna)	Photocell Advance™						IP20	51
NEW! HCD405/BT	220-240Vac	DALI-2 30mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm		\checkmark	HF (New Robust Antenna)	Photocell Advance™						IP20	51
NEW! HCD405BT/H	220-240Vac	DALI-2 30mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm		\checkmark	HF (New Robust Antenna)	Photocell Advance™						IP20	52
NEW! HCD418D2/PRC) 220-240Vac	DALI-2 50mA Power Supply (PSU)	Tri-level Control Daylight Harvest			HF (New Robust Antenna)	Photocell Advance™	\checkmark	\checkmark		\checkmark	√ HRC-11	IP20	52
NEW! HCD418D2/I	220-240Vac	DALI-2 50mA Power Supply (PSU)	Tri-level Control Daylight Harvest			HF (New Robust Antenna)	Photocell Advance™				\checkmark	√ HRC-11	IP20	52
NEW! HCD418D2/H	220-240Vac	DALI-2 50mA Power Supply (PSU)	Tri-level Control Daylight Harvest			HF (New Robust Antenna)	Photocell Advance™				\checkmark	√ HRC-11	IP20	53
NEW! HCD405D2/PRC	220-240Vac Current Consumption Max. 2mA from DALI Bus	DALI/DALI-2 Command				HF (New Robust Antenna)	Photodiode			Low-bay max. 3m			IP20	53
NEW! HCD405D2	220-240Vac Current Consumption Max. 2mA from DALI Bus	DALI/DALI-2 Command				HF (New Robust Antenna)	Photodiode			Low-bay max. 6m			IP20	53
NEW! HCD405D2/H	220-240Vac Current Consumption Max. 2mA from DALI Bus	DALI/DALI-2 Command				HF (New Robust Antenna)	Photodiode			High-bay max. 15m			IP20	53
NEW! HIR60	9.5-22.5Vdc Current Consumption Max. 30mA fron DALI Bus	DALI/DALI-2 Command with Zhaga Book 20	Tri-level Control Daylight Harvest Circadian Rhythm		\checkmark	PIR	Photodiode	Active Lux Switching		Low-bay max. 3m			IP20	54
NEW! HIR60 with HA04	9.5-22.5Vdc Current Consumption Max. 30mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20	Tri-level Control Daylight Harvest Circadian Rhythm	\checkmark	\checkmark	PIR	Photodiode	Active Lux Switching		Low-bay max. 3m			IP20	54

Overview: DALI & DALI-2 Output (tri-level dimming / daylight harvest)

	5	Input	Output	Built-in Program	Tunable White Control	Bluetooth 5.0 Mesh	Detection Technology	Daylight Sensor	Pro-active Lux Switching	True Presence Detection	Install Height	Dip-Switch Settings	Remote Controller	IP Rate	Page
٢	EW! HIR60 with HA05	9.5-22.5Vdc Current Consumption Max. 30mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20	Tri-level Control Daylight Harvest Circadian Rhythm	\checkmark		PIR	Photodiode	Active Lux Switching		Low-bay max. 3m			IP20	54
٢	HIR60/R B	9.5-22.5Vdc Current Consumption Max. 30mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20	Tri-level Control Daylight Harvest Circadian Rhythm	\checkmark		PIR	Photodiode	Active Lux Switching		Mid-bay max. 12m			IP65 (lens/ facia part)	54
٢	HIR61	9.5-22.5Vdc Current Consumption Max. 12mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20				PIR	Photodiode			Low-bay max. 3m			IP20	54
٢	HIR61 with HA04	9.5-22.5Vdc Current Consumption Max. 12mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20				PIR	Photodiode			Low-bay max. 3m			IP20	54
٢	HIR61 with HA05	9.5-22.5Vdc Current Consumption Max. 12mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20				PIR	Photodiode			Low-bay max. 3m			IP20	54
٢	EW! HIR61/R	9.5-22.5Vdc Current Consumption Max. 12mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20				PIR	Photodiode			Mid-bay max. 12m			IP65 (lens/ facia part)	55
	HIR60/SV SILVAIR	9.5-22.5Vdc Current Consumption Max. 30mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20	Tri-level Control Daylight Harvest		√ (Silvair)	PIR	Photodiode	Active Lux Switching		Low-bay max. 3m			IP20	56
	HIR60/SV with HA04	9.5-22.5Vdc Current Consumption Max. 30mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20	Tri-level Control Daylight Harvest		√ (Silvair)	PIR	Photodiode	Active Lux Switching		Low-bay max. 3m			IP20	56
	HIR60/SV with HA05	9.5-22.5Vdc Current Consumption Max. 30mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20	Tri-level Control Daylight Harvest		√ (Silvair)	PIR	Photodiode	Active Lux Switching		Low-bay max. 3m			IP20	56
	HIR60/SV/R SILVAIR	9.5-22.5Vdc Current Consumption Max. 30mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20	Tri-level Control Daylight Harvest		√ (Silvair)	PIR	Photodiode	Active Lux Switching		Mid-bay max. 12m			IP65 (lens/ facia part)	56

Overview: Human Centric Lighting & Tunable White Control

					Tunable				Pro-active	True					
		Input	Output	Built-in Program	White Control	Bluetooth 5.0 Mesh		Daylight Sensor	Lux Switching	Presence Detection	Install Height	Dip-Switch Settings	Remote Controller	IP Rate	
Ν	EW! HCD405BT/PRO	220-240Vac	DALI-2 30mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm	\checkmark	\checkmark	HF (New Robust Antenna)	Photocell Advance™	\checkmark	\checkmark	Low-bay max. 3m			IP20	51
И	EW! HCD405/BT	220-240Vac	DALI-2 30mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm		\checkmark	HF (New Robust Antenna)	Photocell Advance™	\checkmark		Low-bay max. óm			IP20	51
И	EW! HCD405BT/H	220-240Vac	DALI-2 30mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm		\checkmark	HF (New Robust Antenna)	Photocell Advance™	\checkmark		High-bay max. 15m			IP20	52
Ν	EW! HCD418D2/PRO	220-240Vac	DALI-2 50mA Power Supply (PSU)	Tri-level Control Daylight Harvest			HF (New Robust Antenna)	Photocell Advance™	\checkmark	\checkmark	Low-bay max. 3m	\checkmark	√ (Silvair)	IP20	52
И	HCD418D2/I	220-240Vac	DALI-2 50mA Power Supply (PSU)	Tri-level Control Daylight Harvest			HF (New Robust Antenna)	Photocell Advance™			Low-bay max. 6m		√ (Silvair)	IP20	52
Ν	EW! HCD418D2/H	220-240Vac	DALI-2 50mA Power Supply (PSU)	Tri-level Control Daylight Harvest			HF (New Robust Antenna)	Photocell Advance™			High-bay max. 15m	\checkmark	√ (Silvair)	IP20	53
И	EW! HIR60	9.5-22.5Vdc Current Consumption Max. 30mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20	Tri-level Control Daylight Harvest Circadian Rhythm		\checkmark	PIR	Photodiode	Active Lux Switching		Low-bay max. 3m			IP20	54
И	EW! HIR60 with HA04	9.5-22.5Vdc Current Consumption Max. 30mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20	Tri-level Control Daylight Harvest Circadian Rhythm		\checkmark	PIR	Photodiode	Active Lux Switching		Low-bay max. 3m			IP20	54
И	EW! HIR60/R with HA05	9.5-22.5Vdc Current Consumption Max. 30mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20	Tri-level Control Daylight Harvest Circadian Rhythm		\checkmark	PIR	Photodiode	Active Lux Switching		Low-bay max. 3m			IP20	54
Ν	EW! HIR60/R 8	9.5-22.5Vdc Current Consumption Max. 30mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20	Tri-level Control Daylight Harvest Circadian Rhythm		\checkmark	PIR	Photodiode	Active Lux Switching		Mid-bay max. 12m			IP65 (lens/ facia part)	54

Overview: Human Centric Lighting & Tunable White Control

2	Input	Output	Built-in Program	Tunable White Control	Bluetooth 5.0 Mesh	Detection Technology	Daylight Sensor	Pro-active Lux Switching	True Presence Detection	Install Height	Dip-Switch Settings	Remote Controller	IP Rate	Page
HIR60/SV SILVAIR	9.5-22.5Vdc Current Consumption Max. 30mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20	Tri-level Control Daylight Harvest	\checkmark	√ (Silvair)	PIR	Photodiode	Active Lux Switching		Low-bay max. 3m			IP20	56
HIR60/SV with HA02 SILVAIR	 9.5-22.5Vdc Current Consumption Max. 30mA from DALI Bus 	DALI/DALI-2 Command with Zhaga Book 20	Tri-level Control Daylight Harvest	\checkmark	√ (Silvair)	PIR	Photodiode	Active Lux Switching		Low-bay max. 3m			IP20	56
HIR60/SV with HA05	5 9.5-22.5Vdc Current Consumption Max. 30mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20	Tri-level Control Daylight Harvest	\checkmark	√ (Silvair)	PIR	Photodiode	Active Lux Switching		Low-bay max. 3m			IP20	56
HIR60/SV/R SILVAIR	9.5-22.5Vdc Current Consumption Max. 30mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20	Tri-level Control Daylight Harvest		√ (Silvair)	PIR	Photodiode	Active Lux Switching		Mid-bay max. 12m			IP65 (lens/ facia part)	56

Overview: RF (primary & secondary control)

Š.	Input	Output	RF Frequency	Primary Control	Secondary Control	True Presence Detection	Daylight Sensor	Active Lux Switching	Install Height	Dip-Switch Settings	Page
HC028V/RF	220-240Vac	1-10V Tri-level control 400VA/1200W	√ Transceiver 433MHz/868MHz	\checkmark	\checkmark	HF	Photodiode	Active Lux Switching	Low-bay max. 6m	Also with rotaty switch	62
HC023RF	220-240Vac	On/Off 400VA/1200W	√ Receiver 433MHz/868MHz		\checkmark	HF				Rotaty switch	62
HC024RF	220-240Vac	1-10V Tri-level control 400VA/1200W	√ Receiver 433MHz/868MHz							√ Also with rotaty switch	63
HC428V/RF	120-277Vac	1-10V Tri-level control 500VA	√ Transceiver 915MHz	\checkmark		HF	Photodiode	Active Lux Switching	Low-bay max. 6m	√ Also with rotaty switch	63
HC423RF	120-277Vac	On/Off 500VA	√ Receiver 915MHz		\checkmark	HF				Rotaty switch	63
HC424RF	120-277Vac	1-10V Tri-level control 500VA	√ Receiver 915MHz							Also with rotaty switch	63

Overview: Mid-bay & High-bay

C			Ö	verv	Iew	': Mi	d-bc	ıy &	Hig	h-bo	y				
	3	Input	Output	Built-in Program	Tunable White Control	Bluetooth 5.0 Mesh	True Presence Detection	Daylight Sensor	Pro-active Lux Switching	Install Mid-bay	Height High-bay	Dip-Switch Settings	Remote Controller	IP Rate	Page
N	EW! HC005SBT/H	220-240Vac	On/Off 300VA/400W			\checkmark	HF (New Robust Antenna)	Photocell Advance™	\checkmark		√ max. 15m			IP20	50
N	EW! HC419SBT/H	120-277Vac	On/Off 350VA/500W			\checkmark	HF (New Robust Antenna)	Photocell Advance™	\checkmark		√ max. 15m			IP20	50
ľ	EW! HC005S/H	220-240Vac	On/Off 400VA/800W				HF (New Robust Antenna)	Photocell Advance™	\checkmark		√ max. 15m	\checkmark		IP20	51
Ľ	EW! HC419S/H	120-277Vac	On/Off 500VA/1000W				HF (New Robust Antenna)	Photocell Advance™			√ max. 15m	\checkmark		IP20	51
ľ	EW! HCD405BT/H	220-240Vac	DALI-2 30mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm		\checkmark	HF (New Robust Antenna)	Photocell Advance™	\checkmark		√ max. 15m			IP20	52
Ľ	EW! HCD418D2/H	220-240Vac	DALI-2 50mA Power Supply (PSU)	Tri-level Control Daylight Harvest			HF (New Robust Antenna)	Photocell Advance™			√ max. 15m	\checkmark	√ HRC-11	IP20	53
L,	EW! HCD405D2/H	220-240Vac Current Consumption Max. 2mA from DALI Bus	DALI/DALI-2 Command				HF (New Robust Antenna)	Photodiode			√ max. 15m			IP20	53
L,	EW! HIR60/R 8	9.5-22.5Vdc Current Consumption Max. 30mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20	Tri-level Control Daylight Harvest Circadian Rhythm		\checkmark	PIR	Photodiode	Active Lux Switching	√ max. 12m				IP65 (lens/ facia part)	54
ľ	EW! HIR61/R	9.5-22.5Vdc Current Consumption Max. 12mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20				PIR	Photodiode		√ max. 12m				IP65 (lens/ facia part)	55
	HIR60/SV/R Silvair	9.5-22.5Vdc Current Consumption Max. 30mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20	Tri-level Control Daylight Harvest		√ (Silvair)	PIR	Photodiode	Active Lux Switching	√ max. 12m				IP65 (lens/ facia part)	56

Overview: Mid-bay & High-bay

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U			Built-in Program		Bluetooth 5.0 Mesh			Pro-active Lux Switching	Install Mid-bay		Dip-Switch Settings		IP Rate	
NEW! HC503S/TY 8 COR	12Vdc	0-10V			√ (Tuya)	HF (New Robust Antenna)	Photodiode	·		√ max. 15m			IP65	55
NEW! HC503S	12Vdc	0-10V				HF	Photodiode			√ max. 15m		√ HRC-05	IP65	60
NEW! SAM15/TY	12Vdc	0-10V Zhaga Book 18	Tri-level Control		√ (Tuya)	HF (New Robust Antenna)	Photodiode			√ max. 15m			IP65	57
NEW! SAM15/RC05	12Vdc	0-10V Zhaga Book 18	Tri-level Control			HF	Photodiode			√ max. 15m		√ HRC-05	IP65	57
NEW! HC419V/H	120-277Vac	1-10V 500VA/1000W	Tri-level Control Daylight Harvest			HF (New Robust Antenna)	Photocell Advance™	\checkmark		√ max. 15m	\checkmark	√ HRC-11	IP20	57



Overview: Zhaga Connection

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	<u> </u>	Input	Output	Built-in Program	Tunable White Control	Bluetooth 5.0 Mesh	True Presence Detection	Daylight Sensor	Pro-active Lux Switching	l Low-bay	nstall Height Mid-bay High-bay	Remote Controller	IP Rate	Page
1	HIR60	9.5-22.5Vdc Current Consumption Max. 30mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20	Tri-level Control Daylight Harvest Circadian Rhythm			PIR	Photodiode	Active Lux Switching	√ max. 3m			IP20	54
ſ	NEW! HIR60 with HA04	9.5-22.5Vdc Current Consumption Max. 30mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20	Tri-level Control Daylight Harvest Circadian Rhythm	\checkmark	\checkmark	PIR	Photodiode	Active Lux Switching	√ max. 3m			IP20	54
,	HIR60 with HA05	9.5-22.5Vdc Current Consumption Max. 30mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20	Tri-level Control Daylight Harvest Circadian Rhythm			PIR	Photodiode	Active Lux Switching	√ max. 3m			IP20	54
ſ	NEW! HIR60/R 8	9.5-22.5Vdc Current Consumption Max, 30mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20	Tri-level Control Daylight Harvest Circadian Rhythm	\checkmark	\checkmark	PIR	Photodiode	Active Lux Switching		√ max. 12m		IP65 (lens/ facia part)	54
1	HIR61	9.5-22.5Vdc Current Consumption Max. 12mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20				PIR	Photodiode		√ max. 3m			IP20	54
١	HIR61with HA04	9.5-22.5Vdc Current Consumption Max. 12mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20				PIR	Photodiode		√ max. 3m			IP20	54
1	HIR61with HA05	9.5-22.5Vdc Current Consumption Max. 12mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20				PIR	Photodiode		√ max. 3m			IP20	54
٢	HIR61/R	9.5-22.5Vdc Current Consumption Max. 12mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20				PIR	Photodiode			√ max. 12m		IP65 (lens/ facia part)	55
	HIR60/SV SILVAIR	9.5-22.5Vdc Current Consumption Max. 30mA from DALI Bus	DALI/DALI-2 Command with Zhaga Book 20	Tri-level Control Daylight Harvest		√ (Silvair)	PIR	Photodiode	Active Lux Switching	√ max. 3m			IP20	56
	HIR60/SV with HA04	 9.5-22.5Vdc Current Consumption Max. 30mA from DALI Bus 	DALI/DALI-2 Command with Zhaga Book 20	Tri-level Control Daylight Harvest		√ (Silvair)	PIR	Photodiode	Active Lux Switching	√ max. 3m			IP20	56





Full Product Specifications - - - HC005SBT/H & HC419SBT/H & HC005S/PRO & HC419S/PRO







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Suitable for

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 400VA capacitive / 800W resistive
- Warming-up period: 10s
- Microwave detection (HF 5.8GHz \pm 75MHz)
- Max withstandable in-rush current: 80A@160µs
- Ta: -20°C ~ +50°C; Tc: +75°C

Features & Functions

- True presence detection technology (*See pg. 12)
- On/Off control with relay output
- Robust HF antenna design against wireless interference (*See pg. 13)
- Daylight sensor: Photocell Advance™ (*See pg. 14-17)
- Pro-active Lux Switching technology (*See pg. 16)
- Max installation height: 3m
- Max detection range: $\varnothing = 8m$ (diameter)
- \bullet Max true presence detection range: $\ensuremath{\varnothing}$ =8m (diameter)
- Size: L * W * H = 102mm * 45mm * 28mm
- Sensor settings via DIP-Switches
- Optional horizontal / vertical screw mount orientation (horizontal as default)



NEW! HC419S/PRO

- Input: 120V-277VAC 50/60Hz
- Output (Max Loading): 500VA capacitive / 1000W resistive
- Warming-up period: 10s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Max withstandable in-rush current: 80A@160µs
- Ta: -20°C ~ +50°C; Tc: +75°C

Features & Functions

- True presence detection technology (*See pg. 12)
- On/Off control with relay output
- Robust HF antenna design against wireless interference (*See pg. 13)

Suitable for

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- Daylight sensor: Photocell Advance™ (*See pg. 14-17)
- Pro-active Lux Switching technology (*See pg. 16)
- Max installation height: 3m
- Max detection range: Ø =8m (diameter)
- Max true presence detection range: Ø =8m (diameter)
- Size: L * W * H = 102mm * 45mm * 28mm
- 5126. 2 / / 11 = 10211111 40
- Sensor settings via DIP-Switches
- \bullet Optional horizontal / vertical screw mount orientation (horizontal as default)



NEW! HCD405BT/PRO



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Suitable for

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 30mA Power Supply
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz \pm 75MHz)
- Max withstandable in-rush current: 80A@160µs
- Ta: -20°C ~ +50°C; Tc: +75°C

Features & Functions

- True presence detection technology (*See pg. 12)
- 🚷 Bluetooth[®] 5.0 SIG Mesh (*See full details on pg. 05-11)
- \bullet DALI/DALI-2 with power supply unit built-in
- Compliant to IEC62386_101, 103, 351
- Tri-level Dimming & Daylight Harvest (*See pg. 19-21)
- Human Centric Lightng / Circadian rhythm (*See pg. 24)
- $\bullet\,$ Support DT8 drivers with tunable white control
- Robust HF antenna design against wireless interference (*See pg. 13)
- Daylight sensor: Photocell Advance™ (*See pg. 14-17)
- Pro-active Lux Switching technology (*See pg. 16)
- Pro-active Daylight Harvesting technology (*See pg. 16)
 Support D4i driver and collect energy, fault & diagnostics data
- Max installation height: 3m
- Max detection range: Ø =8m (diameter)
- Max true presence detection range: Ø =8m (diameter)
- Size: L * W * H = 102mm * 45mm * 28mm
- Sensor settings via mobile/tablet app & PC web platform
- Optional horizontal / vertical screw mount orientation (horizontal as default)



NEW! HCD405/BT

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Suitable for

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 30mA Power Supply
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
 Max withstandable in-rush current: 80A@160µs
- Ta: -20°C ~ +50°C: Tc: +75°C
- Id. -20 C ~ +30 C, IC. +75 C

- 8 Bluetooth[®] 5.0 SIG Mesh (*See full details on pg. 05-11)
- DALI/DALI-2 with power supply unit built-in
- Compliant to IEC62386_101, 103, 351
- Tri-level Dimming & Daylight Harvest (*See pg. 19-21)
- Human Centric Lightng / Circadian rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Robust HF antenna design against wireless interference (*See pg. 13)
- Daylight sensor: Photocell Advance™ (*See pg. 14-17)
- Pro-active Lux Switching technology (*See pg. 16)
- Pro-active Daylight Harvesting technology (*See pg. 16)
- Support D4i driver and collect energy, fault & diagnostics data
- Max installation height: 6m
- Max detection range: Ø =10m (diameter)
- Size: L * W * H = 80.5mm * 36.5mm * 26mm
- Sensor settings via mobile/tablet app & PC web platform
- Optional horizontal / vertical screw mount orientation (horizontal as default)



NEW! HCD418D2/I



Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 50mA Power Supply
- Warming-up period: 10s
- Microwave detection (HF 5.8GHz ± 75MHz)
 Max withstandable in-rush current: 80A@160µs
- Ta: -20°C ~ +50°C; Tc: +80°C



- DALI/DALI-2 with power supply unit built-in
- Compliant to IEC62386_101, 103, 351
- Tri-level Dimming & Daylight Harvest (*See pg. 19-21)
- Support DT8 drivers with tunable white control
- Robust HF antenna design against wireless interference (*See pg. 13)
- Daylight sensor: Photocell Advance™ (*See pg. 14-17)
- Pro-active Lux Switching technology (*See pg. 16)
- Pro-active Daylight Harvesting technology (*See pg. 16)
- Support D4i driver and collect energy, fault & diagnostics data
- Max installation height: 6m
- Max detection range: $\emptyset = 10m$ (diameter)
- Size: L * W * H = 102mm * 45mm * 28mm
- Sensor settings via DIP-Switches & handset HRC-11













Technical Data & Specifications

- Input: 120-277VAC 50/60Hz
- Output (Max Loading): 500VA capacitive / 1000W resistive
- Warming-up period: 10s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Max withstandable in-rush current: 80A@160µs
- Ta: -20°C ~ +50°C; Tc: +75°C



- True presence detection technology (*See pg. 12)
- 0-10V dimming control with relay output
- Tri-level Dimming & Daylight Harvest (*See pg. 19-21)
- Robust HF antenna design against wireless interference (*See pg. 13)
- Daylight sensor: Photocell Advance™ (*See pg. 14-17)
- Pro-active Lux Switching technology (*See pg. 16)
- Pro-active Daylight Harvesting technology (*See pg. 16)
- Max installation height: 3m
- Max detection range: \emptyset =8m (diameter)
- Max true presence detection range: \varnothing =8m (diameter)
- Size: L * W * H = 102mm * 45mm * 28mm
- Switch-Dim (PUSH) & Sync terminal
- Sensor settings via DIP-Switches & handset HRC-11



Technical Data & Specifications

- Input: 120-277VAC 50/60Hz
- Output (Max Loading): 500VA capacitive / 1000W resistive
- Warming-up period: 10s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Max withstandable in-rush current: 80A@160µs
 Suitable for
- Ta: -35°C ~ +70°C; Tc: +80°C

Features & Functions

- 1-10V dimming control with relay output
- Robust HF antenna design against wireless interference (*See pg. 13)

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- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Daylight sensor: Photocell Advance™ (*See pg. 14-17)
- Pro-active Lux Switching technology (*See pg. 16)
- Pro-active Daylight Harvesting technology (*See pg. 16)
- Max installation height: 15m (forklift) / 12m (human)
- \bullet Max detection range: Ø =26m (forklift) / 16m (human)
- Size: L * W * H = 102mm * 45mm * 28mm
- Switch-Dim (PUSH) & Sync terminal
- Sensor settings via DIP-Switches & handset HRC-11

Features & Functions

- On/Off control with relay output
- Robust HF antenna design against wireless interference (*See pg. 13)

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Suitable for

- Daylight sensor: Photocell Advance™ (*See pg. 14-17)
- Pro-active Lux Switching technology (*See pg. 16)

Technical Data & Specifications

• Microwave detection (HF 5.8GHz ± 75MHz)

• Max withstandable in-rush current: 80A@160µs

• Output (Max Loading): 300VA capacitive / 400W resistive

• Input: 220-240VAC 50/60Hz

• Ta: -20°C ~ +60°C; Tc: +75°C

• Warming-up period: 10s

- Max installation height: 6m
- Max detection range: $\emptyset = 10m$ (diameter)
- Size: L * W * H = 60mm * 26mm * 22.5mm
- Sensor settings via DIP-Switches

Full Product Specifications - - - HC007S & HC005S/I & HC005S & HC005S/L



- Sensor settings via DIP-Switches
- Optional horizontal / vertical screw mount orientation (horizontal as default)



Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 400VA capacitive / 800W resistive
- Warming-up period: 10s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Max withstandable in-rush current: 80A@160µs
- Ta: -35°C ~ +70°C; Tc: +80°C

Suitable for

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Features & Functions

- On/Off control with relay output
- Robust HF antenna design against wireless interference (*See pg. 13)
- Daylight sensor: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Max installation height: 6m
- Max detection range: Ø =10m (diameter)
- Size: L * W * H = 80.5mm * 36.5mm * 26mm
- Sensor settings via DIP-Switches
- Optional horizontal / vertical screw mount orientation (horizontal as default)





Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 400VA capacitive / 800W resistive
- Warming-up period: 10s
- Microwave detection (HF 5.8GHz ± 75MHz)
- • Max withstandable in-rush current: 80A@160µs
- Ta: -35°C ~ +70°C; Tc: +80°C



- On/Off control with relay output
- Robust HF antenna design against wireless interference (*See pg. 13)
- Daylight sensor: Special Photodiode (read IR only)
- Active Lux Switching technology (*See pg. 15)
- Max installation height: 6m
- Max detection range: Ø =10m (diameter)
- Size: L * W * H = 80.5mm * 36.5mm * 26mm
- Sensor settings via DIP-Switches
- Optional horizontal / vertical screw mount orientation (horizontal as default)

¬ Full Product Specifications - - - HC419S & HC009S & HC005VFC/PRO & HC501S

HC419S HC009S **Technical Data & Specifications** Technical Data & Specifications • Input: 120-277VAC 50/60Hz • Input: 220-240VAC 50/60Hz • Output (Max Loading): 1000VA capacitive / 1600W resistive • Output (Max Loading): 400VA capacitive / 1200W resistive • Warming-up period: 10s • Warming-up period: 20s • Microwave detection (HF 5.8GHz ± 75MHz) • Microwave detection (HF 5.8GHz \pm 75MHz) (문 남 🖉 • Max withstandable in-rush current: 120A@160µs CE KK • Max withstandable in-rush current: 80A@160µs • Ta: -35°C ~ +70°C; Tc: +80°C • Ta: -35°C ~ +70°C; Tc: +85°C Suitable for Suitable for **Features & Functions Features & Functions** • On/Off control with relay output • On/Off control with relay output • Daylight sensor: Photodiode (PD) • Daylight sensor: Photodiode (PD) Active Lux Switching technology (*See pg. 15) Active Lux Switching technology (*See pg. 15) • Max installation height: 6m • Max installation height: 6m • Max detection range: Ø =12m (diameter) • Max detection range: Ø =12m (diameter) • Size: I * W * H = 102mm * 45mm * 28mm • Size: L * W * H = 98mm * 43mm * 30mm • Sensor settings via DIP-Switches • Sensor settings via DIP-Switches NEW! HC005SVFC/PRO HC501S **Technical Data & Specifications** Technical Data & Specifications • Input: 220-240VAC 50/60Hz • Input: 12-48VDC • Output (Max Loading): 12V@≤10A, 48V@≤2A • Output (Max Loading): 3.6A@<240VAC, 2A@<48VDC • Warming-up period: 20s • Warming-up period: 20s Microwave detection (HF 5.8GHz ± 75MHz) • Microwave detection (HF 5.8GHz ± 75MHz) • Max withstandable in-rush current: 80A@160µs • Ta: -35°C ~ +70°C; Tc: +80°C (문 문 🖉 (문 문 🖉 • Ta: -35°C ~ +70°C; Tc: +80°C Suitable for Suitable for **Features & Functions Features & Functions** • On/Off control with relay output • True presence detection technology (*See pg. 12) • Robust HF antenna design against wireless interference (*See pg. 13) • Davlight sensor: Photodiode (PD) • On/Off control with relay output • Active Lux Switching technology (*See pg. 15) • VFC: Volt-free Contact / Dry Contact • Max installation height: 6m • Daylight sensor: Photocell Advance™ (*See pg. 14-17) • Max detection range: Ø =12m (diameter) • Size: L * W * H = 103mm * 52.4mm * 29.3mm • Pro-active Lux Switching technology (*See pg. 16) • Max installation height: 6m • Sensor settings via DIP-Switches • Max detection range: Ø =12m (diameter) • Size: L * W * H = 102mm * 45mm * 28mm • Sensor settings via DIP-Switches

Full Product Specifications - - - HC503S & HC012S & HC012S/RC05 & HC019V/I



• Pro-active Lux Switching technology (*See pg. 16)

Max detection range: Ø = 12m (diameter)
 Size: L * W * H = 102mm * 45mm * 28mm

• Max installation height: 6m

• Sensor settings via DIP-Switches

• Sync terminal

- Active Lux Switching technology (*See pg. 15)
- Max installation height: 6m
- Max detection range: Ø =10m (diameter)
- Size: L * W * H = 97.6mm * 22.5mm * 26.5mm
- Sensor settings via handset HRC-05

Full Product Specifications - - - HC419V/I & HC019V/DH & HC419VRC/DH & HC018V





- Sensor settings via DIP-Switches
- Rotary Switch for quick RF channel pair (*See pg. 22-23)
- Switch-Dim (PUSH) terminal

HC024RF

HC423RF









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Motion Sensors

Built-in Detachable Sensor Head Design for OEMs



5	Over	/ie	w: Det	ac	chable	Sı	per-	mini	Sens	sor Hea	d [Design	
	5	Bluetooth 5.0 Mesh	Detection Technology	True Presence Detection	Key Features	Tunable White Control	Daylight Sensor	Pro-active Lux Switching	lnstall Height	Commissioning via: DIP-Switch/ Rotary Switch/ Romete Controller/ Bluetooth Mobile (or Tablet) App & Web App Platform	IP Rate	To be used with	Page
	SAM4 Size: L * W * H= 30.7mm * 25.5mm * 12mm		HF		Tri-level Dimming		Photodiode	Active Lux Switching	Low-bay max. óm	DIP-Switch	IP20	HC009S-KD HC403V-KD HEC9025 HEC9425	94
	SAM5 Size: L * W * H= 30.7mm * 25.2mm * 13mm		HF		Tri-level Dimming		Photodiode	Active Lux Switching	Low-bay max. 6m	Romete Controller HRC-05	IP20	HC403VRC-KD HC603VRC-KD HEC7030 HEC7430	95
	SAM5/I Size: L * W * H= 347mm * 252mm * 155mm		HF		Tri-level Dimming		Photocell Advance™		Low-bay max. óm	Romete Controller HRC-11	IP20	HC009S/KD-I HC009SDC-KD/I HC403VRC-KD/I HEC9025/I	94
	SAM5/FM		HF		Tri-level Dimming Flush Mount		Photodiode	Active Lux Switching	Low-bay max. óm	Romete Controller HRC-05	IP20	HC403VRC-KD HC603VRC-KD HEC7030 HEC7430	95
	SAM5/AA		HF		Tri-level Dimming Adjustable Angle		Photodiode	Active Lux Switching	Low-bay max. 6m	Romete Controller HRC-05	IP20	HC403VRC-KD HC603VRC-KD HEC7030 HEC7430	95
	SAM5/IP65		HF		Tri-level Dimming Conduit Mount		Photodiode	Active Lux Switching	Low-bay max. 6m	Romete Controller HRC-05	IP65	HC403VRC-KD HC603VRC-KD HEC7030 HEC7430	95
	SAM6 Size: L * W * H= 45.2mm * 32.5mm * 26.5mm		HF		Tri-level Dimming		Photodiode	Active Lux Switching	High-bay max. 15m	Romete Controller HRC-05	IP20	HC403VRC-KD HC603VRC-KD	95
NEV	SAM7D2/PRO		HF (New Robust Antenna)		Tri-level Dimming Daylight Harvest		Photocell Advance™	\checkmark	Low-bay max. 3m	Romete Controller HRC-11	IP20	HC038V HCD038 HC438V HCD438 HCD038/P Hex-Drive series	80
NEV	SAM7D2/H Size: L*W*H= 50 fmm ± 11 0 mm ± 16 mm		HF (New Robust Antenna)		Tri-level Dimming Daylight Harvest	\checkmark	Photocell Advance™	\checkmark	High-bay max. 15m	Romete Controller HRC-11	IP20	HC038V HCD038 HC438V HCD438 HCD038/P Hex-Drive series	80
NEV	SAM7/I Size: L*W * H= 52.5mm * 12mm * 16mm		HF (New Robust Antenna)		Tri-level Dimming Daylight Harvest		Photocell Advance™		Low-bay max. óm	Romete Controller HRC-11	IP20	HC038V HCD038 HC438V HCD438 HCD038/P Hex-Drive series	80

6	Overv	view: De	etachable S	uper-	mini	Sens	sor Hea	d D	Design	
	5	Bluetooth 5:0 Technology Mesh	True Presence Detection	Daylight Sensor		Install Height	Commissioning via: DIP-Switch/ Rotary Switch/ Romete Controller/ Bluetooth Mobile (or Tablet) App & Web App Platform	IP Rate		Page
	SAM7 Size: L * W * H= 52.5mm * 31.2mm * 16mm	HF (New Robust Antenna)	Tri-level Dimming	Photodiode	Active Lux Switching	Low-bay max. 6m	Romete Controller HRC-11	IP20	HC038V HCD038 HC438V HCD438 HCD038/P Hex-Drive series HEM09 HEM09H	81
	SAM7/FM HF (New Robust Antenna) Size: Ø * H= 48mm * 20.3mm		Tri-level Dimming Flush Mount	Photocell	Active Lux Switching	Low-bay max. 6m	Romete Controller HRC-05	IP20	HC038V HCD038 HC438V HCD438 HCD038/P Hex-Drive series HEM09 HEM09H	81
	SAM7/AA	HF (New Robust Antenna)	Tri-level Dimming Adjustable Angle	Photocell	Active Lux Switching	Low-bay max. 6m	Romete Controller HRC-05	IP20	HC038V HCD038 HC438V HCD438 HCD038/P Hex-Drive series HEM09 HEM09H	81
	SAM8	HF (New Robust Antenna)	Tri-level Dimming RF Primary & Secondary	Photodiode	Active Lux Switching	Low-bay max. óm	Romete Controller HRC-04	IP20	HC038V HCD038 HC438V HCD438 HCD038/P Hex-Drive series	81
	SAM8/RC11 Size: L * W * H= 52.5mm * 31.2mm * 16mm	HF (New Robust Antenna)	Tri-level Dimming RF Primary & Secondary	Photodiode	Active Lux Switching	Low-bay max. 6m	Romete Controller HRC-11	IP20	HC038V HCD038 HC438V HCD438 HCD038/P Hex-Drive series	81
	SAM9 Size: L * W * H= 30.7mm * 25.2mm * 12mm	HF	Tri-level Dimming	Photodiode	Active Lux Switching	Low-bay max. 6m		IP20	HC403VRC-KD HC603VRC-KD HEC7030 HEC7430	95
	SAM11 Size: L * W * H= 71.5mm * 31.7mm * 16mm	HF (New Robust Antenna)	Tri-level Dimming RF Primary & Secondary	Photodiode	Active Lux Switching	Low-bay max. 6m	Rotary Switch & Romete Controller HRC-11	IP20	HC038V HCD038 HC438V HCD438 HCD038/P Hex-Drive series	81
	SAM11/I Size: L * W * H= 71.5mm * 31.7mm * 16mm	HF (New Robust Antenna)	Tri-level Dimming RF Primary & Secondary	Photocell Advance™		Low-bay max. óm	Rotary Switch & Romete Controller HRC-11	IP20	HC038V HCD038 HC438V HCD438 HCD038/P Hex-Drive series	81
NE	SAM12 Size: L * W * H= 50.5mm * 22.5mm * 12.5mm	HF (New Robust Antenna)	12VDC input 5V 1kHZ PWM Output Tri-level Dimming	Photodiode	Active Lux Switching	Low-bay max. 6m	DIP-Switch	IP20	3rd Party LED Driver	96

5	Overv	vie	ew: Det	a	chable	Sı	per-	mini	Sens	sor Hea	d D	Design	
NEI	Size: L * W * H= 50.5mm * 12.5mm * 12.5mm		HF (New Robust Antenna)		12VDC input 5V 1kHZ PWM / 0-10V Output Tri-level Dimming		Photodiode	Active Lux Switching	Low-bay max. óm	Romete Controller HRC-05	IP20	3rd Party LED Driver	96
NEI	SAM12/TY Store Size: L * W * H= 50.5mm * 12.5mm * 12.5mm		HF (New Robust Antenna)		12VDC input 5V 1kHZ PWM / 0-10V Output Tri-level Dimming		Photodiode		Low-bay max. óm	Bluetooth Mobile (or Tablet) App	IP20	3rd Party LED Driver	96
	SAM13 Size: L * W * H= 50.5mm * 22.5mm * 12.5mm		HF (New Robust Antenna)		On/Off Control		Activ Photodiode Swite	Active Lux Switching	Low-bay max. óm	DIP-Switch	IP20	HC038 HC438	92
NEI	SAM13/RC12 Size: L * W * H= 50.5mm * 22.5mm * 12.5mm		HF (New Robust Antenna)		On/Off Control		Photodiode	Active Lux Switching	Low-bay max. óm	Romete Controller HRC-12	IP20	HC038 HC438	92
	SAM13/RC12/H Size: L * W * H= 52.5mm * 31.2mm * 16mm		HF (New Robust Antenna)		On/Off Control		Photodiode	Active Lux Switching	High-bay max. 15m	Romete Controller HRC-12	IP20	HC038 HC438	92
	SAM14		HF (New Robust Antenna)		12VDC input 5V 1kHZ PWM / 0-10V Output Tri-level Dimming		Photodiode	Active Lux Switching	Low-bay max. 6m	DIP-Switch	IP20	3rd Party LED Driver	96
	SAM14/RC05 Size: L * W * H= 93.5mm * 16mm * 14.5mm		HF (New Robust Antenna)		12VDC input 5V 1kHZ PWM / 0-10V Output Tri-level Dimming		Photodiode	Active Lux Switching	Low-bay max. 6m	Romete Controller HRC-05	IP20	3rd Party LED Driver	96
NE	SAM20D2/PRO		HF (New Robust Antenna)	√ I	Tri-level Dimming Daylight Harvest Human Centric Lightii	√ ng	Photocell Advance™		Low-bay max. 3m	Bluetooth Mobile (or Tablet) App & Web App Platform	IP20	HC038V/BT HCD038/BT HC438V/BT HCD438/BT HCD038/CA HCD438/CA HE9028/KD HED7030/BT HED8045/BT HBEM01 HBEM02 HBEM03 HBEM04 HBEM05	88







6	Overv	view	De	tac	hable S	Su	per-I	mini	Sens	or Hea	d D	Design	
	S	Bluetooth 5.0 Mesh	tection hnology	True Presence Detection	Key Features	Tunable White Control	Daylight Sensor	Pro-active Lux Switching	Install Height	Commissioning via: DIP-Switch/ Rotary Switch/ Romete Controller/ Bluetooth Mobile (or Tablet) App & Web App Platform	IP Rate	To be used with	Page
	HIRO2/AA		PIR		Tri-level Dimming Adjustable Angle		Photocell	Active Lux Switching	Low-bay max. 3m	Romete Controller HRC-05	IP20	HC038V HCD038 HC438V HCD438 HCD038/P Hex-Drive series	82
	HIRO2/RC12		PIR		On/Off Control		Photocell	Active Lux Switching	Low-bay max. 3m	Romete Controller HRC-12	IP20	HC038 HC438	92
	HIRO3 Size: L * W * H= 44.5mm * 17mm * 19.3mm		PIR		Daylight Harvest		Photocell Advance™	\checkmark	Low-bay max. 3m	Romete Controller HRC-11	IP20	HC038V HCD038 HC438V HCD438 HCD038/P Hex-Drive series	82
	HIRO4 Size: L * W * H= 44.5mm * 17mm * 19.3mm	HIRO4 Size: L * W * H= 4.5mm * 17mm * 19.3mm		Tri-level Dimming		Photocell Advance™	\checkmark	Low-bay max. 3m	Romete Controller HRC-11	IP20	HC038V HCD038 HC438V HCD438 HCD038/P Hex-Drive series	82	
	HIRO4/RC12		PIR		On/Off Control		Photocell Advance™	\checkmark	Low-bay max. 3m	Romete Controller HRC-12	IP20	HC038 HC438	92
	HIRO5 Vize: L * W * H= 39.5mm * 30mm * 25.8mm		PIR	Н	Tri-level Dimming Daylight Harvest uman Centric Lighting	\checkmark	Photocell	Active Lux Switching	Lowbay max. 3m	Bluetooth Mobile (or Tablet) App & Web App Platform	IP20	HC038V/BT HCD038/BT HC438V/BT HCD438/BT HCD038/CA HCD438/CA HE9028/KD HED7030/BT HED8045/BT HBEM01 HBEM02 HBEM03 HBEM04 HBEM05	89
	HIRO5/FM Size: Ø * H= 48mm * 20.3mm		PIR	Н	Tri-level Dimming Daylight Harvest uman Centric Lighting		Photocell	Active Lux Switching	Low-bay max. 3m	Bluetooth Mobile (or Tablet) App & Web App Platform	IP20	HC038V/BT HCD038/BT HC438V/BT HCD438/BT HCD038/CA HCD438/CA HBE9028/KD HED7030/BT HED8045/BT HBEM01 HBEM02 HBEM03 HBEM04 HBEM05	89

Overview: Detachable Super-mini Sensor Head Design HC038V/BT HCD038/BT HC438V/BT HCD438/BT HIRO5/AA HCD038/CA HCD438/CA 😵 Bluetooth Tri-level Dimming HBE9028/KD Active Lux Low-bay Mobile (or Tablet) PIR Photodiode IP20 Daylight Harvest \checkmark 90 Switching max. 3m App & Web App HED7030/BT Human Centric Lighting Platform HED8045/BT Size: Ø * H= 90mm * 75mm HBEM01 HBEM02 HBEM03 HBFM04 HBEM05 HC038V/BT HCD038/BT HC438V/BT HCD438/BT HCD038/CA HIR07 HCD438/CA 🚯 Bluetooth Tri-level Dimming 00 Photocell HBE9028/KD Low-bay Mobile (or Tablet) PIR Daylight Harvest IP20 90 Advance™ max. 3m App & Web App HED7030/BT Human Centric Lighting HED8045/BT Platform Size: L * W * H= 44.5mm * 17mm * 19.3mm HBEM01 HBEM02 HBEM03 HBEM04 HBEM05 HIRO9/S HC038V IP65 HCD038 Daylight Harvest High-bay Romete Controller (lens/ HC438V Active Lux PIR Photocell 82 HRC-11 HCD438 Surface Mount Switching max. 15m facial HCD038/P part) Size: Ø * H= 36.3mm * 32.6mm Hex-Drive series HIRO9/F HC038V IP65 HCD038 Daylight Harvest Active Lux High-bay Romete Controller (lens/ HC438V PIR Photocell 82 Switching Flush Mount max. 15m HRC-11 HCD438 facial HCD038/P part) Size: Ø * H= 48mm * 20.3mm Hex-Drive series HIR09/C HC038V IP65 HCD038 Romete Controller HC438V Daylight Harvest Active Lux High-bay (lens/ PIR 82 Photocell Conduit Mount Switching max. 15m HRC-11 facial HCD438 HCD038/P part) Size: L * W * H= 63mm * 40.5mm * 33.9mm Hex-Drive series HC038V HIR09/AA IP65 HCD038 Daylight Harvest Active Lux High-bay Romete Controller (lens/ HC438V PIR 83 Photocell HRC-11 HCD438 Adjustable Angle Switching max. 15m facial HCD038/P part) Size: Ø * H= 90mm * 75mm Hex-Drive series HC038V HIR10 Daylight Harvest IP65 HCD038 Active Lux High-bay Romete Controller (lens/ HC438V PIR Photocell 83 Suitable for HCD438 Switching max. 15m HRC-11 facial Size: L * W * H= linear luminaire HCD038/P part) 75mm * 45mm * 217mm Hex-Drive series

Overview: Detachable Super-mini Sensor Head Design HC038V/BT HCD038/BT HC438V/BT HCD438/BT HIR11/S HCD038/CA IP65 Tri-level Dimming HCD438/CA Bluetooth Daylight Harvest Active Lux High-bay Mobile (or Tablet) (lens/ HBE9028/KD PIR Photocell 90 Switching Human Centric Lighting max. 15m App & Web App facial HED7030/BT Surface Mount Platform HED8045/BT part) Size: Ø * H= 36.3mm * 32.6mm HBEM01 HBEM02 HBEM03 HBEM04 HBEM05 HC038V/BT HCD038/BT HC438V/BT HCD438/BT HIR11/F HCD038/CA HCD438/CA Tri-level Dimming 🚯 Bluetooth IP65 HBE9028/KD Daylight Harvest Active Lux High-bay Mobile (or Tablet) (lens/ PIR Photocell 90 HED7030/BT Human Centric Lighting Switching max. 15m App & Web App facial HED8045/BT Flush Mount Platform part) Size: Ø * H= 48mm * 20.3mm HBEM01 HBEM02 HBEM03 HBEM04 HBEM05 HC038V/BT HCD038/BT HC438V/BT HCD438/BT HIR11/C HCD038/CA HCD438/CA Tri-level Dimming 🚯 Bluetooth IP65 HBE9028/KD Daylight Harvest Active Lux High-bay Mobile (or Tablet) (lens/ PIR Photocell 90 HED7030/BT Human Centric Lighting Switching max. 15m App & Web App facial HED8045/BT Conduit Mount Platform part) Size: L * W * H= 63mm * 40.5mm * 33.9mm HBEM01 HBEM02 HBEM03 HBEM04 HBEM05 HC038V/BT HCD038/BT HC438V/BT HCD438/BT HIR11/AA HCD038/CA Tri-level Dimming 🚯 Bluetooth IP65 HCD438/CA Daylight Harvest High-bay Mobile (or Tablet) HBE9028/KD Active Lux (lens/ PIR Photocell 90 Human Centric Lighting Switching max. 15m App & Web App facial HED7030/BT Adjustable Angle Platform part) HED8045/BT Size: Ø * H= 90mm * 75mm HBEM01 HBEM02 HBEM03 HBEM04 HBEM05

Overview: Detachable Super-mini Sensor Head Design HC038V/BT HCD038/BT HC438V/BT HCD438/BT HIR12 Tri-level Dimming HCD038/CA IP65 Daylight Harvest HCD438/CA 🚯 Bluetooth Human Centric Lighting HBE9028/KD Active Lux High-bay Mobile (or Tablet) (lens/ PIR Photocell 90 HED7030/BT Switching max. 15m App & Web App facial Suitable for Platform part) HED8045/BT Size: L * W * H= 75mm * 45mm * 21.7mm HBEM01 linear luminaire HBEM02 HBEM03 HREM04 HBEM05 HIR13/S HC038V Tri-level Dimming IP6.5 HCD038 😵 Bluetooth 8 Daylight Harvest High-bay Mobile (or Tablet) (lens/ HC438V Active Lux PIR Photocell 86 Human Centric Lighting Switching max. 15m App & Web App facial HCD438 Surface Mount HCD038/P Platform part) Hex-Drive series Size: Ø * H= 36.3mm * 32.6mm HIR13/F HC038V Tri-level Dimming IP65 HCD038 Bluetooth ₿ 0 Daylight Harvest Active Lux High-bay Mobile (or Tablet) (lens/ HC438V PIR Photocell Human Centric Lighting 86 HCD438 Switching max. 15m App & Web App facial Flush Mount HCD038/P Platform part) Hex-Drive series Size: Ø * H= 48mm * 20.3mm HIR13/C HC038V Tri-level Dimming Bluetooth IP6.5 HCD038 6 Daylight Harvest High-bay Mobile (or Tablet) (lens/ HC438V Active Lux PIR Photocell Human Centric Lighting Switching 86 max. 15m App & Web App facial HCD438 Conduit Mount HCD038/P Platform part) Hex-Drive series Size: L * W * H= 63mm * 40.5mm * 33.9mm HIR13/AA HC038V Tri-level Dimming Bluetooth IP65 HCD038 8 Daylight Harvest High-bay Mobile (or Tablet) (lens/ HC438V Active Lux PIR Photocell 87 HCD438 Human Centric Lighting Switching max. 15m App & Web App facial Adjustable Angle part) HCD038/P Platform Hex-Drive series Size: Ø * H= 90mm * 75mm Tri-level Dimming HC038V HIR16 Daylight Harvest IP65 HCD038 8 Bluetooth Human Centric Lighting HC438V Active Lux High-bay Mobile (or Tablet) (lens/ PIR Photocell 87 Switching max. 15m App & Web App facial HCD438 Size: L * W * H= 75mm * 45mm * 21.7mm Suitable for HCD038/P Platform part) linear luminaire Hex-Drive series NEW! HIR17 HC038V HCD038 Tri-level Dimming Active Lux Low-bay Romete Controller HC438V PIR Photodiode IP20 83 Daylight Harvest Switching max. 3m HRC-11 HCD438 HCD038/P Hex-Drive series Size: Ø * H= 26mm * 31.8mm

5	Overv	view: Det	achable	Su	per-ı	mini	Sens	sor Hea	id [Design	
	S										
NEV	HIR 17 with HAO4	PIR	Tri-level Dimming Daylight Harvest		Photodiode	Active Lux Switching	Low-bay max. 3m	Romete Controller HRC-11	IP20	HC038V HCD038 HC438V HCD438 HCD038/P Hex-Drive series	83
NEV	HIR 17 with HA05 HIR 17 with HA05 Size: L * W * H= 68mm * 27mm * 31.8mm	PIR	Tri-level Dimming Daylight Harvest	\checkmark	Photodiode	Active Lux Switching	Low-bay max. 3m	Romete Controller HRC-11	IP20	HC038V HCD038 HC438V HCD438 HCD038/P Hex-Drive series	83
NEV	HIR 17/R With the second seco	PIR	Tri-level Dimming Daylight Harvest	\checkmark	Photodiode	Active Lux Switching	Mid-bay max. 12m	Romete Controller HRC-11	IP65 (lens/ facial part)	HC038V HCD038 HC438V HCD438 HCD038/P Hex-Drive series	83
NEV	HIR 18	PIR	On/Off Control		Photodiode	Active Lux Switching	Low-bay max. 3m	Romete Controller HRC-12	IP20	HC038 HC438	92
NEV	HIR18 with HA04	PIR	On/Off Control		Photodiode	Active Lux Switching	Low-bay max. 3m	Romete Controller HRC-12	IP20	HC038 HC438	93
NEV	HIR18 with HAO5	PIR	On/Off Control		Photodiode	Active Lux Switching	Low-bay max. 3m	Romete Controller HRC-12	IP20	HC038 HC438	93
NEV	HIR 18/R Size: Ø * H= 36mm * 43.4mm	PIR	On/Off Control		Photodiode	Active Lux Switching	Mid-bay max. 12m	Romete Controller HRC-12	IP65 (lens/ facial part)	HC038 HC438	93
	HIR19/S	PIR	Tri-level Dimming Surface Mount		Photocell	Active Lux Switching	High-bay max. 15m	Romete Controller HRC-1 1	IP65 (lens/ facial part)	HC038V HCD038 HC438V HCD438 HCD038/P Hex-Drive series	83
	HIR 19/F	PIR	Tri-level Dimming Flush Mount		Photocell	Active Lux Switching	High-bay max. 15m	Romete Controller HRC-11	IP65 (lens/ facial part)	HC038V HCD038 HC438V HCD438 HCD038/P Hex-Drive series	83





What is the concept behind Hytronik's detachable sensor design ?

Hytronik's detachable control base + sensor head design aims to provide maximum space-saving and flexibility for different types of luminaire design. The super-mini sensor head options integrate motion sensor and daylight sensor together, with our latest advanced technologies. These versatile sensor head options range from HF to PIR, from remote control to Bluetooth mesh network, from on/df control to dimmable control, from low-bay to high-bay, from IP20 to IP65....Small, yet mighty!

Based on different usages, we have divided our sensor heads into 6 categories for better understanding:

Sensor Head Options - - - Category A 🛛 🕨

- Non-Bluetooth featured
- Sensor settings via remote control
- Dimming control (0/1-10V or DALI)
- Control bases options: HC038V, HCD038, HC438V, HCD438, HCD038/P



Sensor Head Options - - - Category B

- Bluetooth featured (Bluetooth module in sensor head, ideal for metal luminaires)
- Sensor settings via mobile/tablet app & web app platform
- Dimming control (0/1-10V or DALI)
- Control bases options: HC038V, HCD038, HC438V, HCD438, HCD038/P

Sensor Head Options - - - Category C 🕨

- Bluetooth featured (Bluetooth module in control base, ideal for plastic luminaire
- Sensor settings via mobile/tablet app & web app platform
- Dimming control (0/1-10V or DALI-2)
- Control bases options: HC038V/BT, HCD038/BT, HC438V/BT HCD438/BT, HCD038/CA, HCD438/CA





Sensor Head Options - - - Category D

- Non-Bluetooth featured
- Sensor settings via remote controller, or via dip-switches on sensor head
- Non-dimming control (On/O ff only)
- Control bases options: HC038, HC438

Sensor Head Options - - - Category E 🕨

- Non-Bluetooth featured
- Sensor settings via remote controller, or via dip-switches on control base
- On/Off or 1-10V dimming control
- Control bases options: HC009S-KD, HC009S-KD/I, HC403V-KD HC403VRC-KD, HC403VRC-KD/I, HC603VRC-KD





Sensor Head Options - - - Category F

- Sensor head only, ready to be integrated into a third-party LED driver
- PWM or 0-10V output
- Comes with Bluetooth & Non-Bluetooth options
- No control base needed

Sensor Head Options - - - Category A >>>

- Non-Bluetooth featured
- Sensor settings via remote controller
- Dimmable control (0/1-10V or DALI/DALI-2)
- Control base options: HC038V, HCD038, HC438V, HCD438, HCD038/P

* Only when both HCD038/P and DALI-2 marked sensor head are used together, then the combination is DALI-2 enabled as a whole. The DALI-2 enabled sensors can freely switch between tri-level control and daylight harvest through remote controller HRC-11 settings.



- 220V-240VAC input
- DALI-2 output with 80mA power supply built-in
- Compliant to IEC62386_101, 103, 303, 304, 351
- Size: L * W * H = 120mm * 30mm * 21mm
- 2 Switch-Dim (PUSH) terminals



- 220V-240VAC input
- 1-10V dimming control with relay output
- Max loading: 400VA capacitive / 800W resistive
- Size: L * W * H = 120mm * 30mm * 21mm
- Switch-Dim (PUSH) terminal



- 220V-240VAC input
- DALI output with 30mA power supply built-in
- Size: L * W * H = 120mm * 30mm * 21mm
- Switch-Dim (PUSH) terminal



- 120V-277VAC input
- 1-10V dimming control with relay output
- Max loading: 400VA capacitive / 800W resistive
- Size: L * W * H = 120mm * 30mm * 21mm
- Switch-Dim (PUSH) terminal



- Microwave (HF) detection
- True presence detection (*See pg. 12)
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Support DT8 drivers with tunable white control
- Robust HF antenna design against wireless interference (*See pg. 13)
- Photocell Advance™ (*See pg. 14-17)
- Pro-active Lux Switching (*See pg. 16)
- Pro-active Daylight Harvesting (*See pg. 16)
- Max installation height: 3m
- Max detection range: Ø =8m (diameter)
- Max true presence detection range: Ø =8m (diameter)
- Size: L * W * H = 52.5mm * 31.2mm * 16mm
- Sensor settings via handset HRC-11



- Microwave (HF) detection
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Support DT8 drivers with tunable white control
- Robust HF antenna design against wireless
- interference (*See pg. 13)
- Photocell Advance[™] (*See pg. 14-17)
- Pro-active Lux Switching (*See pg. 16)
- Pro-active Daylight Harvesting (*See pg. 16)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =22m (forklift) / 12m (human)
- Size: L * W * H = 52.5mm * 31.2mm * 16mm • Sensor settings via handset HRC-11



- Microwave (HF) detection
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Support DT8 drivers with tunable white control
- Robust HF antenna design against wireless interference (*See pg. 13)
- Photocell Advance[™] (*See pg. 14-17)
- Pro-active Lux Switching (*See pg. 16)
- Pro-active Daylight Harvesting (*See pg. 16)
- Max installation height: 6m
- Max detection range: Ø =12m (diameter)
 - Size: L * W * H = 52.5mm * 31.2mm * 16mm
- Sensor settings via handset HRC-11



- 120V-277VAC input
- DALI output with 30mA power supply built-in
- Size: L * W * H = 120mm * 30mm * 21mm
- Switch-Dim (PUSH) terminal

Suitable for





Detachable Sensor Head Design - - - Sensor Head Options (Category A)

HRC-11 11:13 Remote Controlle

- Microwave (HF) detection
- Tri-level dimming (*See pg. 19)
- Robust HF antenna design against wireless interference (*See pg. 13)
- Photodiode (PD)
- Active Lux Switching (*See pg. 15)
- Max installation height: 6m
- Max detection range : Ø = 1 2m (diameter)
- Size: L * W * H = 52.5mm * 31.2mm * 16mm
- Sensor settings via handset HRC-11



- Microwave (HF) detection
- Tri-level dimming (*See pg. 19)
- Robust HF antenna design against wireless interference (*See pg. 13)
- RF pairing (FSK433MHz or FSK868MHz) with primary & secondary control (*See pg. 22-23)
- Photodiode (PD)
- Active Lux Switching (*See pg. 15)
- Max installation height: 6m
- Max detection range: Ø =12m (diameter)
- Size: L * W * H = 52.5mm * 31.2mm * 16mm
- Sensor settings via handset HRC-04



- Microwave (HF) detection
- Tri-level dimming (*See pg. 19)
- Robust HF antenna design against wireless interference (*See pg. 13)
- RF pairing (FSK433/MHz or FSK868/MHz) with
- primary & secondary control (*See pg. 22-23)
- Rotary switch for quick RF channel pair
- Photocell Advance™ (*See pg. 14-17)
- Pro-active Lux Switching (*See pg. 16)
- Max installation height: 6m

- Max detection range: Ø =12m (diameter)
- Size: L * W * H = 71.5mm * 31.7mm * 16mm
- Sensor settings via handset HRC-11



- Microwave (HF) detection
- Adjustable angle design
- Tri-level dimming (*See pg. 19)
- Robust HF antenna design against wireless interference (*See pg. 13)
- Photocell
- Active Lux Switching (*See pg. 15)
- Max installation height: 6m
- Max detection range: Ø =12m (diameter)
- Size: Ø * H = 90mm * 75mm
- Sensor settings via handset HRC-05



- Microwave (HF) detection
- Tri-level dimming (*See pg. 19)
- Robust HF antenna design against wireless interference (*See pg. 13)
- RF pairing (FSK433MHz or FSK868MHz) with primary & secondary control (*See pg. 22-23)
- Photodiode (PD)
- Active Lux Switching (*See pg. 15)
- Max installation height: 6m
- Max detection range: $\emptyset = 12m$ (diameter)
- Size: L * W * H = 52.5mm * 31.2mm * 16mm
- Sensor settings via handset HRC-11



- Passive infrared (PIR) detection
- Daylight harvest (*See pg. 19-21)
- Photocell
- Active Lux Switching (*See pg. 15)
- Max installation height: 3m
- Max detection range: Ø =6m (diameter)
- Size: L * W * H = 39.5mm * 30mm * 25.8mm
- Sensor settings via handset HRC-01



- Microwave (HF) detection
- Flush mount installation
- Tri-level dimming (*See pg. 19)
- Robust HF antenna design against wireless interference (*See pg. 13)
- Photocell
- Active Lux Switching (*See pg. 15)
- Max installation height: 6m
- Max detection range: Ø =12m (diameter)
- Size: Ø * H = 48mm * 20.3mm
- Sensor settings via handset HRC-05



- Microwave (HF) detection
- Tri-level dimming (*See pg. 19)
- Robust HF antenna design against wireless interference (*See pg. 13)
- RF pairing (FSK433MHz or FSK868MHz) with primary & secondary control (*See pg. 22-23)
- Rotary switch for quick RF channel pair
- Photodiode (PD)
- Active Lux Switching (*See pg. 15)
- Max installation height: 6m
- Max detection range: Ø =12m (diameter)
- Size: L * W * H = 71.5mm * 31.7mm * 16mm
- Sensor settings via handset HRC-11



- Passive infrared (PIR) detection
- Flush mount installation
- Daylight harvest (*See pg. 19-21)
- Photocell
- Active Lux Switching (*See pg. 15)
- Max installation height: 3m
- Max detection range: Ø = 18m (diameter)
- Size: Ø * H = 48mm * 20.3mm
- Sensor settings via handset HRC-01

Detachable Sensor Head Design - - - Sensor Head Options (Category A)



- Passive infrared (PIR) detection
- Surface mount installation
- Daylight harvest (*See pg. 19-21)
- Photocell
- Active Lux Switching (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range:Ø =24m (forklift) / 20m (human)
- Size: Ø * H = 36.3mm * 32.6mm
- Sensor settings via handset HRC-11
- IP65 (lens/facia part)



- Passive infrared (PIR) detection
- Flush mount installation
- Daylight harvest (*See pg. 19-21)
- Photocell
- Active Lux Switching (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =24m (forklift) / 20m (human)
- Size: Ø * H = 48mm * 35.4mm
- Sensor settings via handset HRC-11
- IP65 (lens/facia part)

- Passive infrared (PIR) detection
- Conduit thread: M13 * 1.5mm
- Daylight harvest (*See pg. 19-21)
- Photocell
- Active Lux Switching (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =24m (forklift) / 20m (human)
- Size: L * W * H = 63mm * 40.5mm * 33.9mm
- Sensor settings via handset HRC-11
- IP65 (lens/facia part)



- Passive infrared (PIR) detection
- Adjustable angle design
- Daylight harvest (*See pg. 19-21)
- Photocell
- Active Lux Switching (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =24m (forklift) / 20m (human)
- Size: Ø * H = 90mm * 75mm
- Sensor settings via handset HRC-11
- IP65 (lens/facia part)



- Passive infrared (PIR) detection
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Support DT8 drivers with tunable white control
- Photodiode (PD)
- Active Lux Switching (*See pg. 15)
- Max installation height: 3m
- Max detection range : Ø =12m (diameter)
- Size: L * W * H = 52mm * 22mm * 33mm
- Sensor settings via handset HRC-11



- Passive infrared (PIR) detection
- Designed for linear luminaire
- Daylight harvest (*See pg. 19-21)
- Photocell
- Active Lux Switching (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: L*W = 18m*6m (forklift)
- 12m*6m (human)
- Size: L * W * H = 75mm * 45mm * 21.7mm
- Sensor settings via handset HRC-11
- IP65 (lens/facia part)



- Passive infrared (PIR) detection
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Support DT8 drivers with tunable white control
- Photodiode (PD)
- Active Lux Switching (*See pg. 15)
- Max installation height: 3m
- Max detection range: Ø =12m (diameter)
- Size: L * W * H = 68mm * 27mm * 31.8mm
- Sensor settings via handset HRC-11



- Passive infrared (PIR) detection
- Conduit thread: M22 * 1.5mm
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Support DT8 drivers with tunable white control
- Photodiode (PD)
- Active Lux Switching (*See pg. 15)
- Max installation height: 3m
- Max detection range: $\emptyset = 12m$ (diameter)
- Size: Ø * H = 26mm * 31.8mm
- Sensor settings via handset HRC-11



- Passive infrared (PIR) detection
- Conduit thread: M22 * 1.5mm
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Support DT8 drivers with tunable white control
- Photodiode (PD)
- Active Lux Switching (*See pg. 15)
- Max installation height: 12m (forklift) / 8m (human)
- Max detection range: Ø =20m (forklift) / 12m (human)
- Size: Ø * H = 36mm * 43.4mm
- Sensor settings via handset HRC-11
- IP65 (lens/facia part)



- Passive infrared (PIR) detection
- Surface mount installation
- Tri-level dimming (*See pg. 19)
- Photocell

- Active Lux Switching (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =24m (forklift) / 20m (human)
- Size: Ø * H = 36.3mm * 32.6mm
- Sensor settings via handset HRC-11
- IP65 (lens/facia part)



- Passive infrared (PIR) detection
- Flush mount installation
- Tri-level dimming (*See pg. 19)
- Photocell
- Active Lux Switching (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =24m (forklift) / 20m (human)
- Size: Ø * H = 48mm * 35.4mm
- Sensor settings via handset HRC-11
- IP65 (lens/facia part)



- Passive infrared (PIR) detection
- Conduit thread: M13 * 1.5mm
- Tri-level dimming (*See pg. 19)
- Photocell
- Active Lux Switching (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =24m (forklift) / 20m (human)
- Size: L * W * H = 63mm * 40.5mm * 33.9mm
- Sensor settings via handset HRC-11
- IP65 (lens/facia part)



- Passive infrared (PIR) detection
- Adjustable angle design
- Tri-level dimming (*See pg. 19)
- Photocell
- Active Lux Switching (*See pg. 15)
 Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =24m (forklift) / 20m (human)
- Size: Ø * H = 90mm * 75mm
- Sensor settings via handset HRC-11
- IP65 (lens/facia part)

Sensor Head Options - - - Category B

- Bluetooth featured (Bluetooth module in sensor head, ideal for metal luminaires)
- Sensor settings via mobile/tablet app & web app platform
- Dimmable control (0/1-10V or DALI/DALI-2)
- Control base options: HC038V, HCD038, HC438V, HCD438, HCD038/P

HCD038/P NEW! DALD 0 (6 ය 🖄

- 220V-240VAC input
- DALI-2 output with 80mA power supply built-in
- Compliant to IEC62386_101, 103, 303, 304, 351
- Size: L * W * H = 120mm * 30mm * 21mm
- 2 Switch-Dim (PUSH) terminals



- 220V-240VAC input
- 1-10V dimming control with relay output
- Max loading: 400VA capacitive / 800W resistive
- Size: L * W * H = 120mm * 30mm * 21mm
- Switch-Dim (PUSH) terminal



- DALI output with 30mA power supply built-in
- Size: L * W * H = 120mm * 30mm * 21mm
- Switch-Dim (PUSH) terminal



- 120V-277VAC input
- 1-10V dimming control with relay output
- Max loading: 400VA capacitive / 800W resistive
- Size: L * W * H = 120mm * 30mm * 21mm
- Switch-Dim (PUSH) terminal



- Bluetooth[®] 5.0 SIG Mesh (*See full details on pg. 05-11)
- Microwave (HF) detection
- True presence detection (*See pg. 12)
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Robust HF antenna design against wireless interference (*See pg. 13)
- Photocell Advance[™] (*See pg. 14-17)
- Pro-active Lux Switching (*See pg. 16)
- Pro-active Daylight Harvesting (*See pg. 16)
- Max installation height: 3m
- Max detection range: Ø =8m (diameter)
- Max true presence detection range: Ø =8m (diameter)
- Size: L * W * H = 71.5mm * 31.7mm * 16mm

- NEW! DALD Di (*)
- Bluetooth[®] 5.0 SIG Mesh (*See full details on pg. 05-11)
- Microwave (HF) detection
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control.
- Robust HF antenna design against wireless
- interference (*See pg. 13)
- Photocell Advance[™] (*See pg. 14-17)
- Pro-active Lux Switching (*See pg. 16)
- Pro-active Daylight Harvesting (*See pg. 16)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =24m (forklift) / 14m (human) • Size: L * W * H = 71.5mm * 31.7mm * 16mm

Free Combination! 5 control base options with (Total 16 sensor head options)



- Bluetooth[®] 5.0 SIG Mesh (*See full details on pg. 05-11)
- Microwave (HF) detection
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Robust HF antenna design against wireless
- interference (*See pg. 13)
- Photocell Advance[™] (*See pg. 14-17)
- Pro-active Lux Switching (*See pg. 16)
- Pro-active Daylight Harvesting (*See pg. 16)
- Max installation height: 3m
- Max detection range: Ø =8m (diameter)
- Size: L * W * H = 71.5mm * 31.7mm * 16mm



* Full Bluetooth features can be seen on page 04

- 120V-277VAC input
- DALI output with 30mA power supply built-in

* Any of these DALI-2 marked sensor heads needs to be used

- Size: L * W * H = 120mm * 30mm * 21mm
- Switch-Dim (PUSH) terminal

Suitable for



together with HCD038/P to achieve DALI-2 as a whole.

Detachable Sensor Head Design - - - Sensor Head Options (Category B)



- Bluetooth[®] 5.0 SIG Mesh (*See full details on pg. 05-11)
- BLE receiver only (without motion sensor built-in)
- Daylight harvest (*See pg. 19-21)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Photocell Advance™ (*See pg. 14-17)
- Pro-active Lux Switching (*See pg. 16)

HBT02/TY

• Tuya 🚯 Bluetooth® module built-in

• BLE receiver only (without motion sensor built-in)

• Support DT8 drivers with tunable white control

• Size: L * W * H = 52.5mm * 31.2mm * 16mm

NEW!

🚷 tuya

• Photodiode (PD)

- Pro-active Daylight Harvesting (*See pg. 16)
- Size: L * W * H = 71.5mm * 31.7mm * 16mm



- Tuya 🚯 Bluetooth[®] module built-in
- Microwave (HF) detection
- Tri-level dimming (*See pg. 19)
- Support DT8 drivers with tunable white control
- Robust HF antenna design against wireless
- interference (*See pg. 13)
- Photodiode (PD)
- Max installation height: 3m
- Max detection range: $\varnothing = 8m$ (diameter)
- Size: L * W * H = 52.5mm * 31.2mm * 16mm





- Passive infrared (PIR) detection
- Surface mount installation
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
- Photocell
- Active Lux Switching (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =24m (forklift) / 20m (human)
- Size: Ø * H = 36.3mm * 32.6mm
- IP65 (lens/facial part)



- Microwave (HF) detection
- Tri-level dimming & Daylight harvest (*See pg. 19-24)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Robust HF antenna design against wireless
- interference (*See pg. 13)
- Photodiode (PD)
- Max installation height: 3m
- Max detection range: Ø =8m (diameter)
- Size: L * W * H = 52.5mm * 31.2mm * 16mm



• **Bluetooth**[®] 5.0 SIG Mesh (*See full details on pg. 05-11)

- Passive infrared (PIR) detection
- Flush mount installation
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Photocell
- Active Lux Switching (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range : Ø =24m (forklift) / 20m (human)
- Size: Ø * H = 48mm * 35.4mm
- IP65 (lens/facial part)



- Bluetooth[®] 5.0 SIG Mesh (*See full details on pg. 05-11)
- Passive infrared (PIR) detection
- Conduit thread: M13 * 1.5mm
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Photocell
- Active Lux Switching (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: \varnothing =24m (forklift) / 20m (human)
- Size: L * W * H = 63mm * 40.5mm * 33.9mm
- IP65 (lens/facial part)

- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Support DT8 drivers with tunable white control

Detachable Sensor Head Design - - - Sensor Head Options (Category B)



• Bluetooth[®] 5.0 SIG Mesh (*See full details on pg. 05-11)

- Passive infrared (PIR) detection
- Adjustable angle design
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Photocell
- Active Lux Switching (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =24m (forklift) / 20m (human)
- Size: Ø * H = 90mm * 75mm
- IP65 (lens/facial part)



- Bluetooth 5.0 SIG Mesh (*See full details on pg. 05-11)
- Passive infrared (PIR) detection
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Photodiode (PD)
- Active Lux Switching (*See pg. 15)
- Max installation height: 3m
- Max detection range: Ø =12m (diameter)
- Size: L * W * H = 52mm * 22mm * 33mm



- Bluetooth 5.0 SIG Mesh (*See full details on pg. 05-11)
- Passive infrared (PIR) detection
- Designed for linear luminaire
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Photocell
- Active Lux Switching (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: L*W = 18m*6m (forklift)
 - 12m*6m (human)
- Size: L * W * H = 75mm * 45mm * 21.7mm
- IP65 (lens/facial part)



- Passive infrared (PIR) detection
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Photodiode (PD)
- Active Lux Switching (*See pg. 15)
- Max installation height: 3m
- Max detection range: $\emptyset = 12m$ (diameter)
- Size: L * W * H = 68mm * 27mm * 31.8mm



- **Bluetooth**[®] 5.0 SIG Mesh (*See full details on pg. 05-11)
- Passive infrared (PIR) detection
- Conduit thread: M22 * 1.5mm
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Photodiade (PD)
- Active Lux Switching (*See pg. 15)
- Max installation height: 3m
- Max detection range: Ø =12m (diameter)
- Size: Ø * H = 26mm * 31.8mm



- Bluetooth[®] 5.0 SIG Mesh (*See full details on pg. 05-11)
- Passive infrared (PIR) detection
- Conduit thread: M22 * 1.5mm
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Photodiode (PD)
- Active Lux Switching (*See pg. 15)
- Max installation height: 12m (forklift) / 8m (human) • Max detection range : Ø =20m (forklift) / 12m (human)
- Size: Ø * H = 36mm * 43.4mm
- IP65 (lens/facial part)

* Full Bluetooth features can be seen on page 04

* When any one of these sensor heads is used with HCD038/BT or

HCD438/BT, then the combination is DALI-2 enabled as a whole.

* Pro-active Lux Switching (Photocell AdvanceTM) feature will not be available when using with HCD038/CA, HCD438/CA.

Sensor Head Options - - - Category C **>>>**

- Bluetooth featured (Bluetooth module in control base, ideal for plastic luminaires)
- Sensor settings via mobile/tablet app & web app platform
- Dimmable control (0/1-10V or DALI-2)
- Control bases options: HC038V/BT, HCD038/BT, HC438V/BT,HCD438/BT, HCD038/CA, HCD438/CA

HCD038/BT

- Bluetooth[®] 5.0 SIG Mesh (*See full details on pg. 01-02)
- 220V-240VAC input
- DALI-2 output with 30mA power supply built-in
- Compliant to IEC62386_101, 103, 303, 304, 351
- Support D4i driver and collect energy, fault & diagnostics data
- Size: L * W * H = 120mm * 30mm * 21mm
- 2 Switch-Dim (PUSH) terminals
- Optional reinforced Bluetooth antenna accessory

HC438V/BT

- **Bluetooth**[®] 5.0 SIG Mesh (*See full details on pg. 01-02)
- 120V-277VAC input
- 0/1-10V dimming control with relay output
- Max loading: 400VA capacitive / 800W resistive
- Size: L * W * H = 120mm * 30mm * 21mm
- Switch-Dim (PUSH) terminal
- Optional reinforced Bluetooth antenna accessory

Suitable for





- 🚷 Bluetooth[®] 5.0 SIG Mesh (*See full details on pg. 01-02)
- 120V-277VAC input
- DALI-2 output with 30mA power supply built-in
- Compliant to IEC62386_101, 103, 303, 304, 351
- Support D4i driver and collect energy, fault & diagnostics data
- Size: L * W * H = 120mm * 30mm * 21mm
- 2 Switch-Dim (PUSH) terminals
- Optional reinforced Bluetooth antenna accessory



- Casambi **8 Bluetooth**° module builtin
- 220V-240VAC input
- \bullet DALI-2 output with 30mA power supply built-in
- Size: L * W * H = 120mm * 30mm * 21mm
- Switch-Dim (PUSH) terminal

HC038V/BT



- Bluetooth 5.0 SIG Mesh (*See full details on pg. 01-02)
- 220V-240VAC input
- 0/1-10V dimming control with relay output
- Max loading: 400VA capacitive / 800W resistive
- Size: L * W * H = 120mm * 30mm * 21mm
 - Switch-Dim (PUSH) terminal
 - Optional reinforced Bluetooth antenna accessory



• Casambi 🚷 Bluetooth[®] module built-in

- 120V-277VAC input
- DALI-2 output with 30mA power supply built-in
- Size: L * W * H = 120mm * 30mm * 21mm
- Switch-Dim (PUSH) terminal

Free Combination! 6 control base options with (Total 20 sensor head options)



• Microwave (HF) detection

- True presence detection (*See pg. 12)
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Robust HF antenna design against wireless interference (*See pg. 13)
- Photocell Advance™ (*See pg. 14-17)
- Pro-active Lux Switching (*See pg. 16)
- Pro-active Daylight Harvesting (*See pg. 16)
- Max installation height: 3m
- Max detection range: $\varnothing = 8m$ (diameter)
- Max true presence detection range: \varnothing =8m (diameter)
- Size: L * W * H = 52.5mm * 31.2mm * 16mm

More sensor head options

SAM20D2/H



- Microwave (HF) detection
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Robust HF antenna design against wireless interference (*See pg. 13)
- Photocell Advance[™] (*See pg. 14-17)
- Pro-active Lux Switching (*See pg. 16) • Pro-active Daylight Harvesting (*See pg. 16)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =22m (forklift) / 12m (human) • Size: L * W * H = 34.7mm * 25.2mm * 15.5mm



- Microwave (HF) detection
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Robust HF antenna design against wireless
- interference (*See pg. 13)
- Photocell Advance[™] (*See pg. 14-17)
- Pro-active Lux Switching (*See pg. 16)
- Pro-active Daylight Harvesting (*See pg. 16)
- Max installation height: 6m
- Max detection range : Ø = 12m (diameter)
- Size: L * W * H = 34.7mm * 25.2mm * 15.5mm



- Microwave (HF) detection
- Conduit installation (M16 * 3mm)
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
 - Support DT8 drivers with tunable white control
 - Robust HF antenna design against wireless
 - interference (*See pg. 13)
 - Photodiode (PD)
 - Active Lux Switching (*See pg. 15)
 - Max installation height: 6m
 - Max detection range : Ø = 12m (diameter)
 - Size: Ø * H = 41mm * 19.3mm
 - IP6.5



- Microwave (HF) detection
- Flush mount installation
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Robust HF antenna design against wireless interference (*See pg. 13)
- Photocell
- Active Lux Switching (*See pg. 15)
- Max installation height: 6m
- Max detection range : Ø =12m (diameter)
- Size: Ø * H = 48mm * 20.3mm



- Passive infrared (PIR) detection
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Photocell

- Active Lux Switching (*See pg. 15)
- Max installation height: 3m
- Max detection range: Ø =6m (diameter)
- Size: L * W * H = 39.5mm * 30mm * 25.8mm

- Android / We Surface Mount Box HA07
- Microwave (HF) detection
- Adjustable angle design
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Robust HF antenna design against wireless interference (*See pg. 13)
- Photocell
- Active Lux Switching (*See pg. 15)
- Max installation height: 6m
- Max detection range: Ø =12m (diameter)
- Size: Ø * H = 90mm * 75mm



- Microwave (HF) detection
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control Robust HF antenna design against wireless
- interference (*See pg. 13)
- Photocell Advance™ (*See pg. 14-17)
- Pro-active Lux Switching (*See pg. 16)
- Pro-active Daylight Harvesting (*See pg. 16)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range : Ø =20m (forklift) / 12m (human)
- Size: L * W * H = 45.2mm * 32.5mm * 26.5mm



- Passive infrared (PIR) detection
- Elush mount installation
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Photocell
- Active Lux Switching (*See pg. 15)
- Max installation height: 3m
- Max detection range : Ø = 18m (diameter)
- Size: Ø * H = 48mm * 20.3mm

Detachable Sensor Head Design - - - Sensor Head Options (Category C)



- Passive infrared (PIR) detection
- Adjustable angle design
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Photocell
- Active Lux Switching (*See pg. 15)
- Max installation height: 3m
- Max detection range : Ø = 18m (diameter)
- Size: Ø * H = 90mm * 75mm



- Passive infrared (PIR) detection
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Photocell Advance™ (*See pg. 14-17)
- Pro-active Lux Switching (*See pg. 16)
- Pro-active Daylight Harvesting (*See pg. 16)
- Max installation height: 3m
- Max detection range: Ø =6m (diameter)
- Size: L * W * H = 44.5mm * 17mm * 19.3mm



- Passive infrared (PIR) detection
- Surface mount installation
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Photocell
- Active Lux Switching (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range : Ø =24m (forklift) / 20m (human)
- Size: Ø * H = 36.3mm * 32.6mm
- IP65 (lens/facial part)



- Passive infrared (PIR) detection
- Flush mount installation
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Photocell
- Active Lux Switching (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range : Ø =24m (forklift) / 20m (human) • Size: Ø * H = 48mm * 35.4mm
- IP65 (lens/facial part)



- Conduit thread: M13 * 1.5mm
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Photocell
- Active Lux Switching (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =24m (forklift) / 20m (human)
- Size: L * W * H = 63mm * 40.5mm * 33.9mm
- IP65 (lens/facial part)



- Adjustable angle design
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Photocell
- Active Lux Switching (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =24m (forklift) / 20m (human)
- Size: Ø * H = 90mm * 75mm
- IP65 (lens/facial part)

- Passive infrared (PIR) detection
- Designed for linear luminaire
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Photocell
- Active Lux Switching (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human) • Max detection range: L*W =18m*6m (forklift)
- 12m*6m (human)
- Size: L * W * H = 75mm * 45mm * 21.7mm
- IP65 (lens/facial part)

- Passive infrared (PIR) detection Conduit thread: M22 * 1.5mm
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24) • Support DT8 drivers with tunable white control
- Photocell
- Active Lux Switching (*See pg. 15)
- Max installation height: 3m
- Max detection range: Ø =12m (diameter)
- Size: Ø * H = 26mm * 31.8mm

NEW!

Detachable Sensor Head Design - - - Sensor Head Options (Category C)



- Passive infrared (PIR) detection
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Photocell
- Active Lux Switching (*See pg. 15)
- Max installation height: 3m
- Max detection range: $\emptyset = 12m$ (diameter)
- Size: L * W * H = 52mm * 22mm * 33mm



- Passive infrared (PIR) detection
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Photocell
- Active Lux Switching (*See pg. 15)
- Max installation height: 3m
- Max detection range: Ø = 12m (diameter)
- Size: L * W * H = 68mm * 27mm * 31.8mm



- Passive infrared (PIR) detection
- Conduit thread: M22 * 1.5mm
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting/Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Photocell
- Active Lux Switching (*See pg. 15)
- Max installation height: 12m (forklift) / 8m (human)
- Max detection range : Ø =20m (forklift) / 12m (human)
- Size: Ø * H = 36mm * 43.4mm
 IP65 (lens/facial part)

Detachable Sensor Head Design - - - Sensor Head Options (Category D)





- Microwave (HF) detection
- On/Off control
- Robust HF antenna design against wireless interference (*See pg. 13)
- Photodiode (PD)
- Active Lux Switching (*See pg. 15)
- Max installation height: 6m
- Max detection range: Ø =12m (diameter)
- Size: L * W * H = 50.5mm * 22.5mm * 12.5mm



- Microwave (HF) detection
- On/Off control
- Robust HF antenna design against wireless interference (*See pg. 13)
- Photodiode (PD)
- Active Lux Switching (*See pg. 15)
- Max installation height: 6m
- Max detection range: Ø =12m (diameter)
- Size: L * W * H = 50.5mm * 22.5mm * 12.5mm
- Sensor settings via handset HRC-12



- Passive infrared (PIR) detection
- On/Off control
- Photocell
- Active Lux Switching (*See pg. 15)
- Max installation height: 3m
- Max detection range : Ø =6m (diameter)
- Size: L * W * H = 39.5mm * 30mm * 25.8mm
- Sensor settings via handset HRC-12



- Passive infrared (PIR) detection
- On/Off control
- Photocell Advance™ (*See pg. 14-17)
- Pro-active Lux Switching (*See pg. 16)
- Max installation height: 3m
- Max detection range: Ø =6m (diameter)
- Size: L * W * H = 44.5mm * 17mm * 19.3mm
- Sensor settings via handset HRC-12



- Microwave (HF) detection
- On/Off control
- Robust HF antenna design against wireless
- interference (*See pg. 13)
- Photodiode (PD)
- Active Lux Switching (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: *Ø =26m (forklift) / 16m (human)
- Size: L * W * H = 52.5mm * 31.2mm * 16mm
- Sensor settings via handset HRC-12



- Passive infrared (PIR) detection
- Conduit thread: M22 * 1.5mm
- On/Off control
- Photodiode (PD)
- Active Lux Switching (*See pg. 15)
- Max installation height: 3m
- Max detection range: Ø =12m (diameter)
- Size: Ø * H = 26mm * 31.8mm
- Sensor settings via handset HRC-12

Detachable Sensor Head Design - - - Sensor Head Options (Category D)

HIR18 with HA04 HRC-12 WEWN Remote Controller

- Passive infrared (PIR) detection
- On/Off control
- Photodiode (PD)
- Active Lux Switching (*See pg. 15)
- Max installation height: 3m
- Max detection range: $\emptyset = 12m$ (diameter)
- Size: L * W * H = 52mm * 22mm * 33mm
- Sensor settings via handset HRC-12



- Passive infrared (PIR) detection
- On/Off control
- Photodiode (PD)
- Active Lux Switching (*See pg. 15)
- Max installation height: 3m
- Max detection range: Ø =12m (diameter)
- Size: L * W * H = 68mm * 27mm * 31.8mm
- Sensor settings via handset HRC-12



- Passive infrared (PIR) detection
- Conduit thread: M22 * 1.5mm
- On/Off control
- Photodiode (PD)
- Active Lux Switching (*See pg. 15)
- Max installation height: 12m (forklift) / 8m (human)
- Max detection range: Ø =20m (forklift) / 12m (human)
 Size: Ø * H = 36mm * 43.4mm
- Sensor settings via handset HRC-12
- IP65 (lens/facia part)

Suitable for

Sensor Head Options - - - Category E

- Non-Bluetooth featured
- Sensor settings via remote controller, or via dip-switches on control base
- On/Off or 1-10V control
- Control bases options: HC009S-KD, HC009S-KD/I, HC403V-KD, HC403VRC-KD, HC403VRC-KD/I, HC603VRC-KD

HC009S-KD + SAM4



- 220-240VAC input
- Max loading: 800VA capacitive / 1400W resistive
- Microwave (HF) detection
- On/Off control
- Photodiode (PD)
- Active Lux Switching (*See pg. 15)
- Max installation height: 6m
- Max detection range: Ø =12m (diameter)
- SAM4 Size: L * W * H = 30.7mm * 25.2mm * 12mm



- 220-240VAC input
- Max loading: 400VA capacitive / 800W resistive
- Microwave (HF) detection
- On/Off control
- Photocell AdvanceTM (*See pg. 14-17)
- Pro-active Lux Switching (*See pg. 16)
- Max installation height: 6m
- Max detection range: Ø =12m (diameter)
- SAM5/I Size: L * W * H = 34.7mm * 25.2mm * 15.5mm



- 220-240VAC input
- Max loading: 3.6A @ ≤240Vac, 2A @ ≤48Vdc
- Microwave (HF) detection
- On/Off control
- VFC: Volt-free Contact / Dry Contact
- Photocell Advance[™] (*See pg. 14-17)
- Pro-active Lux Switching (*See pg. 16)
- Max installation height: 6m
- Max detection range: Ø =12m (diameter) • SAM5/I Size: L * W * H = 34.7mm * 25.2mm * 15.5mm



- 120-277VAC input
- 1-10V dimming control with relay output
- Max loading: 1000VA capacitive
- Microwave (HF) detection
- Tri-level dimming (*See pg. 19)
- Photodiode (PD)
- Active Lux Switching (*See pg. 15)
- Max installation height: 6m
- Max detection range: Ø =12m (diameter)
 SAM4 Size: L * W * H = 30.7mm * 25.2mm * 12mm





- 120-277VAC input
- 1-10V dimming control with relay output
- Max loading: 1000VA capacitive
- Microwave (HF) detection
- Tri-level dimming (*See pg. 19)
- Photocell Advance[™] (*See pg. 14-17)
- Pro-active Lux Switching (*See pg. 16)
- Max installation height: 6m
- Max detection range: Ø =12m (diameter)
- SAM5/I Size: L * W * H = 34.7mm * 25.2mm * 15.5mm
- Sensor settings via handset HRC-11

Detachable Sensor Head Design - - - Sensor Head Options (Category E)



- 120-277VAC input
- 1-10V dimming control with relay output
- Max loading: 1000VA capacitive
- Size: L * W * H = 95mm * 48mm * 27.5mm



• 347VAC input

- 1-10V dimming control with relay output
- Max loading: 1200VA capacitive
- Size: L * W * H = 95mm * 48mm * 27.5mm

Free Combination! 2 control base options with (Total 6 sensor head options)



- Microwave (HF) detection
- Tri-level dimming (*See pg. 19)
- Photodiode (PD)
- Active Lux Switching (*See pg. 15)
- Max installation height: 6m
- Max detection range: $\emptyset = 12m$ (diameter)
- Size: L * W * H = 30.7mm * 25.2mm * 13mm
- Sensor settings via handset HRC-05



- Flush mount installation
- Tri-level dimming (*See pg. 19)
- Photodiode (PD)
- Active Lux Switching (*See pg. 15)
- Max installation height: 6m
- Max detection range: Ø =12m (diameter)
- Size: Ø * H = 48mm * 20.3mm
- Sensor settings via handset HRC-05



- Adjustable angle design • Tri-level dimming (*See pg. 19)
- Photodiode (PD)
- Active Lux Switching (*See pg. 15) • Max installation height: 6m
- Max detection range : Ø =12m (diameter)
- Size: Ø * H = 90mm * 75mm
- Sensor settings via handset HRC-05



- Microwave (HF) detection
- Conduit installation (M16 * 3mm)
- Tri-level dimming (*See pg. 19)
- Photodiode (PD)
- Active Lux Switching (*See pg. 15)
- Max installation height: 6m
- Max detection range: $\emptyset = 12m$ (diameter)
- Size: Ø * H = 41mm * 19.3mm
- Sensor settings via handset HRC-05
- IP65



- Microwave (HF) detection
- Tri-level dimming (*See pg. 19)
- Photodiode (PD)
- Active Lux Switching (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =20m (forklift) / 12m (human)
- Size: L * W * H = 45.2mm * 32.5mm * 26.5mm
- Sensor settings via handset HRC-05



- Microwave (HF) detection
- Tri-level dimming (*See pg. 19)
- Photodiode (PD)
- Active Lux Switching (*See pg. 15)
- Max installation height: 6m
- Max detection range: Ø =12m (diameter)
- Size: L * W * H = 30.7mm * 25.2mm * 12mm

Sensor Head Options - - - Category F

- Sensor head only, ready to be integrated in to a third-party LED driver
- PWM or 0-10V output
- Bluetooth & Non-Bluetooth options
- No control base needed



- 12VDC input
- 5V 1kHz PWM output
- Microwave (HF) detection
- Tri-level dimming (*See pg. 19)
- Robust HF antenna design against wireless interference (*See pg. 13)
- Photodiode (PD)
- Active Lux Switching (*See pg. 15)
- Max installation height: 6m
- Max detection range : Ø = 1 2m (diameter)
- Size: L * W * H = 50.5mm * 22.5mm * 12.5mm



- 12VDC input
- 5V 1kHz PWM / 0-10V output
- Microwave (HF) detection
- Tri-level dimming (*See pg. 19)
- Robust HF antenna design against wireless
- interference (*See pg. 13)
- Photodiode (PD)
- Active Lux Switching (*See pg. 15)
- Max installation height: 6m
- Max detection range: $\emptyset = 12m$ (diameter)
- Size: L * W * H = 50.5mm * 22.5mm * 12.5mm
- Sensor settings via handset HRC-05





- Tuya 🚯 Bluetooth[®] module built-in
- 12VDC input
- 5V 1kHz PVVM / 0-10V output
- Microwave (HF) detection
- Tri-level dimming (*See pg. 19)
- Robust HF antenna design against wireless interference (*See pg. 13)
- Photodiode (PD)
- Max installation height: 6m
- Max detection range: Ø = 1 2m (diameter)
- Size: L * W * H = 50.5mm * 22.5mm * 12.5mm



- 12VDC input
- 5V 1kHz PVVM / 0-10V output
- Microwave (HF) detection
- Tri-level dimming (*See pg. 19)
- Robust HF antenna design against wireless
- interference (*See pg. 13)
- Photodiode (PD)
- Active Lux Switching (*See pg. 15)
- Max installation height: 6m
- Max detection range: $\emptyset = 12m$ (diameter)
- Size: L * W * H = 93.5mm * 16mm * 14.5mm
 - 528. L VV II = 75.51111 TOININ 14.51111



- 12VDC input
- 5V 1kHz PWM / 0-10V output
- Microwave (HF) detection
- Tri-level dimming (*See pg. 19)
- Robust HF antenna design against wireless
- interference (*See pg. 13)
- Photodiode (PD)
- Active Lux Switching (*See pg. 15)
- Max installation height: 6m
- Max detection range: \emptyset =12m (diameter)
- Size: L * W * H = 93.5mm * 16mm * 14.5mm
- Sensor settings via handset HRC-05

Motion Sensors

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Stand-alone Sensors for Projects



Motion Sensors Quick Guide: Stand-alone Sensors for Projects



Overview: Bluetooth 5.0 Mesh Enabled Sensors (with App)

		Input	Output	Bluetooth 5.0 Mesh	Detection Technology	Daylight Sensor	Active Lux Switching	True Presence Detection	Install Height	IP Rate	Accessories & Variants	Page
NEV	HBMW28/PRO	220-240Vac	On/Off 800VA/1200W	\checkmark	HF (New Robust Antenna)	Photodiode	\checkmark	\checkmark	Low-bay max. 3m	IP20	IP20/IP65 Surface mount box	136
NEV	N HBMW28/H	220-240Vac	On/Off 800VA/1200W		HF (New Robust Antenna)	Photodiode			High-bay max. 15m	IP20	IP20/IP65 Surface mount box	136
NEV	HBMW29/PRO	220-240Vac	DALI-2 Tri-level Control Daylight Harvest Circadian Rhythm 80mA Power Supply (PSU)		HF (New Robust Antenna)	Photocell			Low-bay max. 3m	IP20	IP20/IP65 Surface mount box	137
NEV	HBMW29/H	220-240Vac	DALI-2 Tri-level Control Daylight Harvest Circadian Rhythm 80mA Power Supply (PSU)		HF (New Robust Antenna)	Photocell			High-bay max. 15m	IP20	IP20/IP65 Surface mount box	137
NEV	HBMW25/PRO	220-240Vac	Dual-channel DALI-2 Tri-level Control Daylight Harvest Circadian Rhythm 80mA Power Supply (PSU)	\checkmark	HF (New Robust Antenna)	Photocell	\checkmark		Low-bay max. 3m	IP20	IP20/IP65 Surface mount box	138
NEV	MBIR28	220-240Vac	On/Off 800VA/800W		PIR	Photodiode			Low-bay max. 6m	IP20	IP20/IP65 Surface mount box Blanking plates	138
NEV	HBIR28/R	220-240Vac	On/Off 800VA/800W	\checkmark	PIR	Photodiode	\checkmark		Reinforced Low-bay max. 6m	IP20	IP20/IP65 Surface mount box Blanking plates	138
NEV	HBIR28/W	220-240Vac	On/Off 800VA/800W	\checkmark	PIR	Photodiode	\checkmark		Wide Range Low-bay max. 6m	IP20	IP20/IP65 Surface mount box	138
NEV	HBIR28/H	220-240Vac	On/Off 800VA/800W	\checkmark	PIR	Photodiode	\checkmark		High-bay max. 15m	IP20	IP20/IP65 Surface mount box Blanking plates	138
NEW	HBIR28/RH	220-240Vac	On/Off 800VA/800W	\checkmark	PIR	Photodiode	\checkmark		Reinforced High-bay max. 20m	IP20	IP20/IP65 Surface mount box	138
NEV	HBIR28/2CH	220-240Vac	On/Off + Volt-free CH1: 24VDC≤2A, 250VAC≤2A CH2: 400VA	\checkmark	PIR	Photodiode			Low-bay max. 6m	IP20	IP20/IP65 Surface mount box Blanking plates	139
NEV	HBIR28/2CH/R	220-240Vac	On/Off + Volt-free CH1: 24VDC≤2A, 250VAC≤2A CH2: 400VA	\checkmark	PIR	Photodiode	\checkmark		Reinforced Low-bay max. 6m	IP20	IP20/IP65 Surface mount box Blanking plates	139
NEW	HBIR28/2CH/W	220-240Vac	On/Off + Volt-free CH1: 24VDC≤2A, 250VAC≤2A CH2: 400VA	\checkmark	PIR	Photodiode			Wide Range Low-bay max. óm	IP20	IP20/IP65 Surface mount box	139
NEV	HBIR28/2CH/H	220-240Vac	On/Off + Volt-free CH1: 24VDC≤2A, 250VAC≤2A CH2: 400VA	\checkmark	PIR	Photodiode	\checkmark		High-bay max. 15m	IP20	IP20/IP65 Surface mount box Blanking plates	139
	S	Input	Output	Bluetooth 5.0 Mesh	Detection Technology	Daylight Sensor	Active Lux Switching	True Presence Detection	Install Height	IP Rate	Accessories & Variants	Page
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NEW	HBIR28/2CH/RH	220-240Vac	On/Off + Volt-free CH1: 24VDC≤2A, 250VAC≤2A CH2: 400VA	\checkmark	PIR	Photodiode	\checkmark		Reinforced High-bay max. 20m	IP20	IP20/IP65 Surface mount box	139
	HBIR29	220-240Vac	DALI-2 Tri-level Control Daylight Harvest Circadian Rhythm 80mA Power Supply (PSU)	\checkmark	PIR	Photocell	\checkmark		Low-bay max. 6m	IP20	IP20/IP65 Surface mount box Blanking plates	140
	HBIR29/R	220-240Vac	DALI-2 Tri-level Control Daylight Harvest Circadian Rhythm 80mA Power Supply (PSU)	\checkmark	PIR	Photocell	\checkmark		Reinforced Low-bay max. 6m	IP20	IP20/IP65 Surface mount box Blanking plates	140
	HBIR29/W	220-240Vac	DALI-2 Tri-level Control Daylight Harvest Circadian Rhythm 80mA Power Supply (PSU)	\checkmark	PIR	Photodiode	\checkmark		Wide Range Low-bay max. 6m	IP20	IP20/IP65 Surface mount box	140
	HBIR29/H	220-240Vac	DALI-2 Tri-level Control Daylight Harvest Circadian Rhythm 80mA Power Supply (PSU)	\checkmark	PIR	Photocell	\checkmark		High-bay max. 15m	IP20	IP20/IP65 Surface mount box Blanking plates	140
	HBIR29/RH	220-240Vac	DALI-2 Tri-level Control Daylight Harvest Circadian Rhythm 80mA Power Supply (PSU)	\checkmark	PIR	Photocell	\checkmark		Reinforced High-bay max. 20m	IP20	IP20/IP65 Surface mount box	140
	HBIR31	220-240Vac	DALI-2 Tri-level Control Daylight Harvest 80mA Power Supply (PSU)		PIR	Photocell			Low-bay max. 6m	IP20	IP20/IP65 Surface mount box Blanking plates	140
	HBIR31/R	220-240Vac	DALI-2 Tri-level Control Daylight Harvest 80mA Power Supply (PSU)	\checkmark	PIR	Photocell	\checkmark		Reinforced Low-bay max. óm	IP20	IP20/IP65 Surface mount box Blanking plates	140
	HBIR31/W	220-240Vac	DALI-2 Tri-level Control Daylight Harvest 80mA Power Supply (PSU)	\checkmark	PIR	Photodiode	\checkmark		Wide Range Low-bay max. 6m	IP20	IP20/IP65 Surface mount box	140
	HBIR31/H	220-240Vac	DALI-2 Tri-level Control Daylight Harvest 80mA Power Supply (PSU)		PIR	Photocell			High-bay max. 15m	IP20	IP20/IP65 Surface mount box Blanking plates	140
	HBIR31/RH	220-240Vac	DALI-2 Tri-level Control Daylight Harvest 80mA Power Supply (PSU)	\checkmark	PIR	Photocell			Reinforced High-bay max. 20m	IP20	IP20/IP65 Surface mount box	140
NEW	HBIR29/2CH	220-240Vac	DALI-2 + Volt-free Tri-level Control Daylight Harvest Circadian Rhythm CH1: 24VDC<2A, 250VAC<2A CH2: 50mA Power Supply (PSU)	\checkmark	PIR	Photocell	\checkmark		Low-bay max. 6m	IP20	IP20/IP65 Surface mount box Blanking plates	141

				Output	Bluetooth 5.0 Mesh	Detection Technology	Daylight Sensor		True Presence Detection			Accessories & Variants	
NEV	J/ ₿	IBIR29/2CH/R	220-240Vac	DALI-2 + Volt-free Tri-level Control Daylight Harvest Circadian Rhythm CH1: 24VDC≤2A, 250VAC≤2A CH2: 50mA Power Supply (PSU)	\checkmark	PIR	Photocell	\checkmark		Reinforced Low-bay max. 6m	IP20	IP20/IP65 Surface mount box Blanking plates	141
NEV	8 HI 1/	BIR29/2CH/W	220-240Vac	DALI-2 + Volt-free Tri-level Control Daylight Harvest Circadian Rhythm CH1: 24VDC≤2A, 250VAC≤2A CH2: 50mA Power Supply (PSU)		PIR	Photodiode			Wide Range Low-bay max. 6m	IP20	IP20/IP65 Surface mount box	141
NEW	€ €	BIR29/2CH/H	220-240Vac	DALI-2 + Volt-free Tri-level Control Daylight Harvest Circadian Rhythm CH1: 24VDC≤2A, 250VAC≤2A CH2: 50mA Power Supply (PSU)	\checkmark	PIR	Photocell			High-bay max. 15m	IP20	IP20/IP65 Surface mount box Blanking plates	141
NEW	¶ €	BIR29/2CH/RH	220-240Vac	DALI-2 + Volt-free Tri-level Control Daylight Harvest Circadian Rhythm CH1: 24VDC≤2A, 250VAC≤2A CH2: 50mA Power Supply (PSU)	\checkmark	PIR	Photocell	\checkmark		Reinforced High-bay max. 20m	IP20	IP20/IP65 Surface mount box	141
	8	HBHC25	220-240Vac	Dual-channel DALI-2 Tri-level Control Daylight Harvest Circadian Rhythm 80mA Power Supply (PSU)	\checkmark	PIR	Photocell			Low-bay max. 6m	IP20	IP20/IP65 Surface mount box Blanking plates	142
	8	HBHC25/R	220-240Vac	Dual-channel DALI-2 Tri-level Control Daylight Harvest Circadian Rhythm 80mA Power Supply (PSU)	\checkmark	PIR	Photocell	\checkmark		Reinforced Low-bay max. 6m	IP20	IP20/IP65 Surface mount box Blanking plates	142
	8	HBHC25/W	220-240Vac	Dual-channel DALI-2 Tri-level Control Daylight Harvest Circadian Rhythm 80mA Power Supply (PSU)	\checkmark	PIR	Photodiode	\checkmark		Wide Range Low-bay max. 6m	IP20	IP20/IP65 Surface mount box	142
	8	HBHC25/H	220-240Vac	Dual-channel DALI-2 Tri-level Control Daylight Harvest Circadian Rhythm 80mA Power Supply (PSU)	\checkmark	PIR	Photocell	\checkmark		High-bay max. 15m	IP20	IP20/IP65 Surface mount box Blanking plates	142
	8	HBHC25/RH	220-240Vac	Dual-channel DALI-2 Tri-level Control Daylight Harvest Circadian Rhythm 80mA Power Supply (PSU)		PIR	Photocell	\checkmark		Reinforced High-bay max. 20m	IP20	IP20/IP65 Surface mount box	142
	8	HBIR32	220-240Vac	Dual-channel DALI-2 Tri-level Control Daylight Harvest 80mA Power Supply (PSU)	\checkmark	PIR	Photocell			Low-bay max. 6m	IP20	IP20/IP65 Surface mount box Blanking plates	142
	8	HBIR32/R	220-240Vac	Dual-channel DALI-2 Tri-level Control Daylight Harvest 80mA Power Supply (PSU)	\checkmark	PIR	Photocell	\checkmark		Reinforced Low-bay max. 6m	IP20	IP20/IP65 Surface mount box Blanking plates	142

	S	Input	Output	Bluetooth 5.0 Mesh	Detection Technology	Daylight Sensor	Active Lux Switching	True Presence Detection	Install Height	IP Rate	Accessories & Variants	Page
	HBIR32/W	220-240Vac	Dual-channel DALI-2 Tri-level Control Daylight Harvest 80mA Power Supply (PSU)	\checkmark	PIR	Photodiode	\checkmark		Wide Range Low-bay max. 6m	IP20	IP20/IP65 Surface mount box	142
	HBIR32/H	220-240Vac	Dual-channel DALI-2 Tri-level Control Daylight Harvest 80mA Power Supply (PSU)	\checkmark	PIR	Photocell			High-bay max. 15m	IP20	IP20/IP65 Surface mount box Blanking plates	142
	HBIR32/RH	220-240Vac	Dual-channel DALI-2 Tri-level Control Daylight Harvest 80mA Power Supply (PSU)	\checkmark	PIR	Photocell	\checkmark		Reinforced High-bay max. 20m	IP20	IP20/IP65 Surface mount box	142
NEW	 Incdo49/BT Incdo49/BT 	220-240Vac	DALI-2 Tri-level Control Daylight Harvest Circadian Rhythm 30mA Power Supply (PSU)	\checkmark	PIR	Photocell			High-bay max. 15m	IP65		143
NEW	N HC049V/BT €	220-240Vac	0/1-10V Tri-level Control Daylight Harvest 400VA/800W	\checkmark	PIR	Photocell	\checkmark		High-bay max. 15m	IP65		144
NEW	J. HCD450VDS/BT	220-240Vac	DALI-2 & 0/1-10V & Volt-free & On/Off Tri-level Control Daylight Harvest Circadian Rhythm DALI-2: 40mA 0/1-10V & On/Off: 2x800VA/2x1000W Volt-free: <48VDC[<2A], <240VAC[<3.6A]	\checkmark	HF	Photocell	\checkmark		Reinforced High-bay max. 25m	IP65		144
NEW		220-240Vac	DALI-2 Tri-level Control Daylight Harvest Circadian Rhythm 40mA Power Supply (PSU)		HF (New Robust Antenna)	Photocell	\checkmark		High-bay max. 15m	IP65	3 installation variants: Surface/ Conduit/ Clamp	145
NEW	N HMW98	220-240Vac	0/1-10V Tri-level Control Daylight Harvest 800VA/1000W	\checkmark	HF (New Robust Antenna)	Photocell	\checkmark		High-bay max. 15m	IP65	3 installation variants: Surface/ Conduit/ Clamp	145
NEW	N HIM84	220-240Vac	DALI-2 Tri-level Control Daylight Harvest Circadian Rhythm 40mA Power Supply (PSU)	\checkmark	Dual-Sense PIR + HF (New Robust Antenna)	Photocell	\checkmark		High-bay max. 15m	IP65	3 installation variants: Surface/ Conduit/ Clamp 3 lens options	146
NEW	N HIM98	220-240Vac	0/1-10V Tri-level Control Daylight Harvest 800VA/1000W	\checkmark	Dual-Sense PIR + HF (New Robust Antenna)	Photocell	\checkmark		High-bay max. 15m	IP65	3 installation variants: Surface/ Conduit/ Clamp 3 lens options	146
	HBIR36	220-240Vac	Dual-channel Trailing Edge Tri-level Control Daylight Harvest 2x100VA/2x150W	\checkmark	PIR	Photocell	\checkmark		Low-bay max. 6m	IP20	IP20/IP65 Surface mount box Blanking plates	147

	<u>S</u>	Input	Output	Bluetooth 5.0 Mesh	Detection Technology	Daylight Sensor	Active Lux Switching	True Presence Detection	Install Height	IP Rate	Accessories & Variants	Page
	HBIR36/R	220-240Vac	Dual-channel Trailing Edge Tri-level Control Daylight Harvest 2x100VA/2x150W	\checkmark	PIR	Photocell			Reinforced Low-bay max. 6m	IP20	IP20/IP65 Surface mount box Blanking plates	147
	HBIR36/W	220-240Vac	Dual-channel Trailing Edge Tri-level Control Daylight Harvest 2x100VA/2x150W		PIR	Photodiode			Wide Range Low-bay max. óm	IP20	IP20/IP65 Surface mount box	147
	HBIR36/H	220-240Vac	Dual-channel Trailing Edge Tri-level Control Daylight Harvest 2x100VA/2x150W		PIR	Photocell			High-bay max. 15m	IP20	IP20/IP65 Surface mount box Blanking plates	147
	HBIR36/RH	220-240Vac	Dual-channel Trailing Edge Tri-level Control Daylight Harvest 2x100VA/2x150W	\checkmark	PIR	Photocell	\checkmark		Reinforced High-bay max. 20m	IP20	IP20/IP65 Surface mount box	147
NEY	HBMW29/PRO/TY	220-240Vac	DALI-2 Tri-level Control 80mA Power Supply (PSU)	√ (Tuya)	HF (New Robust Antenna)	Photodiode			Low-bay max. 3m	IP20	IP20/IP65 Surface mount box	147
NEW		220-240Vac	DALI Tri-level Control 40mA Power Supply (PSU)	√ (Tuya)	HF (New Robust Antenna)	Photodiode			High-bay max. 15m	IP65	3 installation variants: Surface/ Conduit/ Clamp	148
	HBIR29/SV SILVAIR	220-240Vac	DALI/DALI-2 Tri-level Control Daylight Harvest 60mA Power Supply (PSU)	√ (Silvair)	PIR	Photocell	\checkmark		Low-bay max. óm	IP20	IP20/IP65 Surface mount box Blanking plates	148
	HBIR29/SV/R SILVAIR	220-240Vac	DALI/DALI-2 Tri-level Control Daylight Harvest 60mA Power Supply (PSU)	√ (Silvair)	PIR	Photocell	\checkmark		Reinforced Low-bay max. 6m	IP20	IP20/IP65 Surface mount box Blanking plates	148
	HBIR29/SV/H SILVAIR	220-240Vac	DALI/DALI-2 Tri-level Control Daylight Harvest 60mA Power Supply (PSU)	√ (Silvair)	PIR	Photocell			High-bay max. 15m	IP20	IP20/IP65 Surface mount box Blanking plates	148
	HBIR29/SV/RH SILVAIR	220-240Vac	DALI/DALI-2 Tri-level Control Daylight Harvest 60mA Power Supply (PSU)	√ (Silvair)	PIR	Photocell	\checkmark		Reinforced High-bay max. 20m	IP20	IP20/IP65 Surface mount box	148
NEW	 HBIR29/CA Image: Image: Im	220-240Vac	DALI/DALI-2 Tri-level Control Daylight Harvest Circadian Rhythm 80mA Power Supply (PSU)	√ (Casambi)	PIR	Photocell			Low-bay max. 6m	IP20	IP20/IP65 Surface mount box Blanking plates	149
NEW	HBIR29/CA/R	220-240Vac	DALI/DALI-2 Tri-level Control Daylight Harvest Circadian Rhythm 80mA Power Supply (PSU)	√ (Casambi)	PIR	Photocell	\checkmark		Reinforced Low-bay max. óm	IP20	IP20/IP65 Surface mount box Blanking plates	149

	<u>S</u>	Input	Output	Bluetooth 5.0 Mesh	Detection Technology	Daylight Sensor	Active Lux Switching	True Presence Detection	Install Height	IP Rate	Accessories & Variants	Page
NEW	HBIR29/CA/W	220-240Vac	DALI/DALI-2 Tri-level Control Daylight Harvest Circadian Rhythm 80mA Power Supply (PSU)	√ (Casambi)	PIR	Photodiode	\checkmark		Wide Range Low-bay max. 6m	IP20	IP20/IP65 Surface mount box	149
NEW	HBIR29/CA/H	220-240Vac	DALI/DALI-2 Tri-level Control Daylight Harvest Circadian Rhythm 80mA Power Supply (PSU)	√ (Casambi)	PIR	Photocell	\checkmark		High-bay max. 15m	IP20	IP20/IP65 Surface mount box Blanking plates	149
NEW	HBIR29/CA/RH	220-240Vac	DALI/DALI-2 Tri-level Control Daylight Harvest Circadian Rhythm 80mA Power Supply (PSU)	√ (Casambi)	PIR	Photocell	\checkmark		Reinforced High-bay max. 20m	IP20	IP20/IP65 Surface mount box	149
NEW	HBIR30/CA	220-240Vac	Bluetooth Command only	√ (Casambi)	PIR	Photocell			Low-bay max. 6m	IP20	IP20/IP65 Surface mount box Blanking plates	150
NEW	HBIR30/CA/R	220-240Vac	Bluetooth Command only	√ (Casambi)	PIR	Photocell			Reinforced Low-bay max. óm	IP20	IP20/IP65 Surface mount box Blanking plates	150
NEW	HBIR30/CA/H	220-240Vac	Bluetooth Command only	√ (Casambi)	PIR	Photocell			High-bay max. 15m	IP20	IP20/IP65 Surface mount box Blanking plates	150

S	Overvi	iew: S	ensors w	ith T	rue Pre	esen	ce//	Abse	ence	Det	ectior	۱
	2	Input	Output	Bluetooth 5.0 Mesh	Detection Technology	Daylight Sensor	Active Lux Switching	Install Height	Dip-Switch Settings	Remote Controller	Accessories & Variants	Page
NEW	HBMW28/PRO	220-240Vac	On/Off 800VA/1200W		HF (New Robust Antenna)	Photodiode	\checkmark	Low-bay max. 3m			IP20/IP65 Surface mount box	136
NEW	HBMW29/PRO	220-240Vac	DALI-2 Tri-level Control Daylight Harvest Circadian Rhythm 80mA Power Supply (PSU)	\checkmark	HF (New Robust Antenna)	Photocell		Low-bay max. 3m			IP20/IP65 Surface mount box	137
NEW	HBMW25/PRO	220-240Vac	Dual-channel DALI-2 Tri-level Control Daylight Harvest Circadian Rhythm 80mA Power Supply (PSU)		HF (New Robust Antenna)	Photocell		Low-bay max. 3m			IP20/IP65 Surface mount box	138
NC	HBMW29/PRO/TY	220-240Vac	DALI-2 Tri-level Control 80mA Power Supply (PSU)	√ (Тиуа)	HF (New Robust Antenna)	Photodiode		Low-bay max. 3m			IP20/IP65 Surface mount box	147
NEW	HMW28/PRO	220-240Vac	On/Off 800VA/1200W		HF (New Robust Antenna)	Photodiode		Low-bay max. 3m		√ HRC-11	IP20/IP65 Surface mount box	150
NEW	HMW21/PRO	220-240Vac	1-10V Tri-level Control Daylight Harvest 400VA/800W		HF (New Robust Antenna)	Photocell		Low-bay max. 3m		√ HRC-11	IP20/IP65 Surface mount box	151
NEW	HMW27/PRO	220-240Vac	DALI-2 Tri-level Control Daylight Harvest 80mA Power Supply (PSU)		HF (New Robust Antenna)	Photocell		Low-bay max. 3m		√ HRC-11	IP20/IP65 Surface mount box	152
NEW	HMW23D2/PRO	220-240Vac Consumption Max. 2mA from DALI Bus	DALI/DALI-2 Command		HF (New Robust Antenna)	Photodiode		Low-bay max. 3m			IP20/IP65 Surface mount box	153
NEW	HMW28VFC/PRO	220-240Vac	On/Off 240VAC<5A		HF (New Robust Antenna)	Photodiode		Low-bay max. 3m		HRC-12	IP20/IP65 Surface mount box	154
NEW	HMW28DCVFC/PRO	12-48Vdc	On/Off 48VDC≤5A		HF (New Robust Antenna)	Photodiode		Low-bay max. 3m		HRC-12	IP20/IP65 Surface mount box	154

Overview: On/Off series

	<u>S</u>	Input	Output	Bluetooth 5.0 Mesh	Detection Technology	Daylight Sensor	Active Lux Switching	True Presence Detection	Install Height	Dip-Switch Settings	Remote Controlle	IP Rate	Accessories & Variants	Page
NEW	HBMW28/PRO	220-240Vac	On/Off 800VA/1200W		HF (New Robust Antenna)	Photodiode	\checkmark	\checkmark	Low-bay max. 3m			IP20	IP20/IP65 Surface mount box	136
NEW	HBMW28/H	220-240Vac	On/Off 800VA/1200W	\checkmark	HF (New Robust Antenna)	Photodiode	\checkmark		High-bay max. 15m			IP20	IP20/IP65 Surface mount box	136
NEW	HBIR28	220-240Vac	On/Off 800VA/800W	\checkmark	PIR	Photodiode			Low-bay max. 6m			IP20	IP20/IP65 Surface mount box Blanking plates	138
NEW	HBIR28/R	220-240Vac	On/Off 800VA/800W	\checkmark	PIR	Photodiode			Reinforced Low-bay max. 6m			IP20	IP20/IP65 Surface mount box Blanking plates	138
NEW	HBIR28/W	220-240Vac	On/Off 800VA/800W	\checkmark	PIR	Photodiode			Wide Range Low-bay max. 6m			IP20	IP20/IP65 Surface mount box	138
NEW	HBIR28/H	220-240Vac	On/Off 800VA/800W		PIR	Photodiode			High-bay max. 15m			IP20	IP20/IP65 Surface mount box Blanking plates	138
NEW	HBIR28/RH	220-240Vac	On/Off 800VA/800W	\checkmark	PIR	Photodiode			Reinforced High-bay max. 20m			IP20	IP20/IP65 Surface mount box	138
NEW	HBIR28/2CH	220-240Vac	On/Off + Volt-free CH1: 24VDC≤2A, 250VAC≤2A CH2: 400VA		PIR	Photodiode	\checkmark		Low-bay max. óm			IP20	IP20/IP65 Surface mount box Blanking plates	139
NEW	HBIR28/2CH/R	220-240Vac	On/Off + Volt-free CH1: 24VDC≤2A, 250VAC≤2A CH2: 400VA		PIR	Photodiode	\checkmark		Reinforced Low-bay max. 6m			IP20	IP20/IP65 Surface mount box Blanking plates	139
NEW	HBIR28/2CH/W	220-240Vac	On/Off + Volt-free CH1: 24VDC≤2A, 250VAC≤2A CH2: 400VA	\checkmark	PIR	Photodiode			Wide Range Low-bay max. óm			IP20	IP20/IP65 Surface mount box	139
NEW	HBIR28/2CH/H	220-240Vac	On/Off + Volt-free CH1: 24VDC≤2A, 250VAC≤2A CH2: 400VA		PIR	Photodiode	\checkmark		High-bay max. 15m			IP20	IP20/IP65 Surface mount box Blanking plates	139
NEW	HBIR28/2CH/RH	220-240Vac	On/Off + Volt-free CH1: 24VDC≤2A, 250VAC≤2A CH2: 400VA	\checkmark	PIR	Photodiode	\checkmark		Reinforced High-bay max. 20m			IP20	IP20/IP65 Surface mount box	139
NEW	HCD450VDS/BT	220-240Vac	DALI-2 & 0/1-10V & Volt-free & On/Off Tri-level Control Daylight Harvest Circadian Rhythm DALI-2: 40mA 0/1-10V & On/Off: 2x800VA/2x1000W Volt-free: <48VDC[<2A], <240VAC[<3.6A]	\checkmark	HF	Photocell	\checkmark		Reinforced High-bay max. 25m			IP65		144

Overview: On/Off series

	S	Input	Output	Bluetooth 5.0 Mesh	Detection Technology	Daylight Sensor	Active Lux Switching	True Presence Detection	Install Height	Dip-Switch Settings	Remote Controller	IP Rate	Accessories & Variants	Page
NEW	HMW28/PRO	220-240Vac	On/Off 800VA/1200W		HF (New Robust Antenna)	Photodiode	\checkmark	\checkmark	Low-bay max. 3m		√ HRC-12	IP20	IP20/IP65 Surface mount box	150
NEW	HMW28/H	220-240Vac	On/Off 800VA/1200W		HF (New Robust Antenna)	Photodiode			High-bay max. 15m		√ HRC-11	IP20	IP20/IP65 Surface mount box	151
NEW	HMW28VFC/PRO	220-240Vac	On/Off 240VAC≤5A		HF (New Robust Antenna)	Photodiode		\checkmark	Low-bay max. 3m		√ HRC-12	IP20	IP20/IP65 Surface mount box	154
NEW	HMW28DCVFC/PRO	12-48Vdc	On/Off 48VDC≤5A		HF (New Robust Antenna)	Photodiode			Low-bay max. 3m		HRC-12	IP20	IP20/IP65 Surface mount box	154
	HIR28	220-240Vac	On/Off 400VA/800W		PIR	Photodiode	\checkmark		Low-bay max. 6m		√ HRC-11	IP20	IP20/IP65 Surface mount box Blanking plates	155
	HIR28/R	220-240Vac	On/Off 400VA/800W		PIR	Photodiode			Reinforced Low-bay max. 6m		√ HRC-11	IP20	IP20/IP65 Surface mount box Blanking plates	155
	HIR28/H	220-240Vac	On/Off 400VA/800W		PIR	Photodiode	\checkmark		High-bay max. 15m		√ HRC-11	IP20	IP20/IP65 Surface mount box Blanking plates	155
	HIR28/RH	220-240Vac	On/Off 400VA/800W		PIR	Photodiode	\checkmark		Reinforced High-bay max. 20m		√ HRC-11	IP20	IP20/IP65 Surface mount box	155
NEW	HIR28VFC	220-240Vac	On/Off 240VAC≤5A		PIR	Photodiode	\checkmark		Low-bay max. 6m		√ HRC-12	IP20	IP20/IP65 Surface mount box Blanking plates	155
NEW	HIR28VFC/R	220-240Vac	On/Off 240VAC≤5A		PIR	Photodiode	\checkmark		Reinforced Low-bay max. 6m		√ HRC-12	IP20	IP20/IP65 Surface mount box Blanking plates	155
NEW	HIR28VFC/W	220-240Vac	On/Off 240VAC≪5A		PIR	Photodiode	\checkmark		Wide Range Low-bay max. 6m		√ HRC-12	IP20	IP20/IP65 Surface mount box	155
NEW	HIR28VFC/H	220-240Vac	On/Off 240VAC≤5A		PIR	Photodiode	\checkmark		High-bay max. 15m		√ HRC-12	IP20	IP20/IP65 Surface mount box Blanking plates	155
NEW	HIR28DCVFC	12-48Vdc	On/Off 48VDC≤5A		PIR	Photodiode	\checkmark		Low-bay max. 6m		√ HRC-12	IP20	IP20/IP65 Surface mount box Blanking plates	156

Overview: On/Off series

	2	Input	Output	Bluetooth 5.0 Mesh	Detection Technology	Daylight Sensor	Active Lux Switching	True Presence Detection	Install Height	Dip-Switch Settings	Remote Controller	IP Rate	Accessories & Variants	Page
NEW!	HIR28DCVFC/R	12-48Vdc	On/Off 48VDC≤5A		PIR	Photodiode	\checkmark		Reinforced Low-bay max. 6m		HRC-12	IP20	IP20/IP65 Surface mount box Blanking plates	156
NEW	HIR28DCVFC/W	12-48Vdc	On/Off 48VDC≤5A		PIR	Photodiode	\checkmark		Wide Range Low-bay max. 6m		√ HRC-12	IP20	IP20/IP65 Surface mount box	156
NEW!	HIR28DCVFC/H	12-48Vdc	On/Off 48VDC<5A		PIR	Photodiode	\checkmark		High-bay max. 15m		HRC-12	IP20	IP20/IP65 Surface mount box Blanking plates	156
	HC049S	220-240Vac	On/Off 400VA/800W		PIR	Photodiode	\checkmark		High-bay max. 15m		√ HRC-11	IP65		160
	HMW20	220-240Vac	On/Off 400VA/1200W		HF	Photodiode	\checkmark		Low-bay max. óm	Rotary Switch	√ HRC-11	IP20	IP20/IP65 Surface mount box	163
	HMW30	220-240Vac	On/Off 800VA/1000W		HF	Photodiode	\checkmark		High-bay max. 15m	Rotary Switch	√ HRC-11	IP65	3 installation variants: Surface/ Conduit/ Clamp	165
4	HIM30	220-240Vac	On/Off 800VA/1000W		Dual-Sense PIR + HF	Photodiode	\checkmark		High-bay max. 15m	Rotary Switch	√ HRC-11	IP65	3 installation variants: Surface/ Conduit/ Clamp 3 lens options	172
	HC030S	220-240Vac	On/Off 800VA/1600W		HF	Photodiode			High-bay max. 15m	\checkmark		IP20	Optional extended conduit thread	175
	HC430S	120-277Vac	On/Off 1000VA/2000W		HF	Photodiode			High-bay max. 15m	\checkmark		IP20	Optional extended conduit thread	175
	HC402S/T	120-277Vac	On/Off 400VA/1200W		HF	Photodiode			Low-bay max. 6m			IP20		176
	HCD450VDS/RC	220-240Vac	DALI & 1-10V & Volt-free & On/Off Daylight Harvest DALI: 40mA 1-10V & On/Off: 2x800VA/2x1000W Volt-free: <48VDC(<2A), <240VAC(<3.6A)	,	HF	Photocell	\checkmark		Reinforced High-bay max. 25m		√ HRC-05	IP65		176
	HC009S/EXT	220-240Vac	On/Off 400VA/1200W		HF	Photodiode			Low-bay max. 3m	\checkmark		IP20		177

Overview: 0/1-10V Output (tri-level dimming / daylight harvest)

	U.	Input	Output	Bluetooth 5.0 Mesh /RF Frequency	Detection Technology	Daylight Sensor	Active Lux Switching	True Presence Detection	Install Height	Rotary Switch Settings	Remote Controller	IP Rate	Accessories & Variants	Page
NEW	HCO49V/BT	220-240Vac	0/1-10V Tri-level Control Daylight Harvest 400VA/800W	Bluetooth 5.0 Mesh	PIR	Photocell	\checkmark		High-bay max. 15m			IP65		144
NEW	HCD450VDS/BT	220-240Vac	DALI-2 & 0/1-10V & Volt-free & On/Off Tri-level Control Daylight Harvest Circadian Rhythm DALI-2: 40mA 0/1-10V & On/Off: 2x800VA/2x1000W Volt-free: <48VDC(<2A), <240VAC(<3.6A)	Bluetooth 5.0 Mesh	HF	Photocell	\checkmark		Reinforced High-bay max. 25m			IP65		144
NEW		220-240Vac	0/1-10V Tri-level Control Daylight Harvest 800VA/1000W	Bluetooth 5.0 Mesh	HF (New Robust Antenna)	Photocell	\checkmark		High-bay max. 15m			IP65	3 installation variants: Surface/ Conduit/ Clamp	145
NEW	HIM98	220-240Vac	0/1-10V Tri-level Control Daylight Harvest 800VA/1000W	Bluetooth 5.0 Mesh	Dual-Sense PIR + HF (New Robust Antenna)	Photocell	\checkmark		High-bay max. 15m			IP65	3 installation variants: Surface/ Conduit/ Clamp 3 lens options	146
NEW	HMW21/PRO	220-240Vac	1-10V Tri-level Control Daylight Harvest 400VA/800W		HF (New Robust Antenna)	Photocell	\checkmark		Low-bay max. 3m		√ HRC-11	IP20	IP20/IP65 Surface mount box	151
	HIR21	220-240Vac	1-10V Tri-level Control 800VA/1600W		PIR	Photodiode			Low-bay max. óm		√ HRC-11	IP20	IP20/IP65 Surface mount box Blanking plates	159
	HIR22	220-240Vac	1-10V Daylight Harvest 800VA/1600W		PIR	Photocell			Low-bay max. óm		√ HRC-11	IP20	IP20/IP65 Surface mount box Blanking plates	159
	HMW11	220-240Vac	1-10V Tri-level Control 800VA/1600W		HF	Photodiode	\checkmark		High-bay max. 15m		√ HRC-11	IP20	Surface mount box Flush mount box	161
	HMW12	220-240Vac	1-10V Daylight Harvest 800VA/1600W		HF	Photocell	\checkmark		High-bay max. 15m		√ HRC-11	IP20	Surface mount box Flush mount box	161
	HMW21	220-240Vac	1-10V Tri-level Control 800VA/1600W		HF	Photocell	\checkmark		Low-bay max. óm		√ HRC-11	IP20	IP20/IP65 Surface mount box	163
	HMW22	220-240Vac	1-10V Daylight Harvest 800VA/1600W		HF	Photocell	\checkmark		Low-bay max. óm	\checkmark	√ HRC-11	IP20	IP20/IP65 Surface mount box	164

Overview: 0/1-10V Output (tri-level dimming / daylight harvest)

	U	Input	Output	Bluetooth 5.0 Mesh /RF Frequency	Detection Technology	Daylight Sensor	Active Lux Switching	True Presence Detection	Install Height	Rotary Switch Settings	Remote Controller	IP Rate	Accessories & Variants	Page
NEW	ничзз	220-240Vac	1-10V Tri-level Control Daylight Harvest 800VA/1000W		HF (New Robust Antenna)	Photocell	\checkmark		High-bay max. 15m	\checkmark	√ HRC-11	IP65	3 installation variants: Surface/ Conduit/ Clamp	166
NEW	HMW38/RF	220-240Vac	1-10V Tri-level Control 800VA/1000W	√ Transmitter Receiver 433/ 868MHz	HF	Photodiode	\checkmark		High-bay max. 15m		√ HRC-11	IP65	3 installation variants: Surface/ Conduit/ Clamp	167
		220-240Vac	1-10V Tri-level Control 800VA/1600W		Dual-Sense PIR + HF	Photodiode	\checkmark		Low-bay max. óm	\checkmark	√ HRC-11	IP20	Surface mount box Flush mount box Blanking Plates	168
	HIM12	220-240Vac	1-10V Daylight Harvest 800VA/1600W		Dual-Sense PIR + HF	Photocell			Low-bay max. 6m	\checkmark	√ HRC-11	IP20	Surface mount box Flush mount box Blanking Plates	169
NEW	HIM33	220-240Vac	1-10V Tri-level Control Daylight Harvest 800VA/1000W		Dual-Sense PIR + HF (New Robust Antenna)	Photocell	\checkmark		High-bay max. 15m		-√ HRC-1 1	IP65	3 installation variants: Surface/ Conduit/ Clamp 3 lens options	172
NEW	HIM38/RF	220-240Vac	1-10V Tri-level Control 800VA/1000W	√ Transmitter Receiver 433/ 868MHz	Dual-Sense PIR + HF	Photodiode	\checkmark		High-bay max. 15m	\checkmark	√ HRC-11	IP65	3 installation variants: Surface/ Conduit/ Clamp 3 lens options	174
	HCD450VDS/RC	220-240Vac	DALI & 1-10V & Volt-free & On/Off Daylight Harvest DALI: 40mA 1-10V & On/Off: 2x800VA/2x1000W Volt-free: <48VDC(<2A), <240VAC(<3.6A)		HF	Photocell	\checkmark		Reinforced High-bay max. 25m		√ HRC-05	IP65		176
	HC019V/EXT	220-240Vac	1-10V Tri-level Control 800VA/2000W		HF	Photodiode			Low-bay max. 3m	Dip- Switches		IP20		177







Overview: DALI & DALI-2 Output (tri-level dimming / daylight harvest)

	র্থ	Input	Output	Built-in Program	Tunable White Control	Bluetooth 5.0 Mesh/ RF Frequency	Detection Technology	Daylight Sensor	Active Lux Switching	True Presence Detection	Install Height	Dip-Switch/ Rotary Switch /Remote Controller	IP Rate	Accessories & Variants	Page
	HBHC25/R	220-240Vac	Dual-channel DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm		Bluetooth 5.0 Mesh	PIR	Photocell			Reinforced Low-bay max. 6m		IP20	IP20/IP65 Surface mount box Blanking plates	142
	HBHC25/W	220-240Vac	Dual-channel DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm	\checkmark	Bluetooth 5.0 Mesh	PIR	Photodiode			Wide Range Low-bay max. óm		IP20	IP20/IP65 Surface mount box	142
	HBHC25/H	220-240Vac	Dual-channel DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm	\checkmark	Bluetooth 5.0 Mesh	PIR	Photocell			High-bay max. 15m		IP20	IP20/IP65 Surface mount box Blanking plates	142
	HBHC25/RH	220-240Vac	Dual-channel DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm	\checkmark	Bluetooth 5.0 Mesh	PIR	Photocell			Reinforced High-bay max. 20m		IP20	IP20/IP65 Surface mount box	142
	HBIR32	220-240Vac	Dual-channel DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest	\checkmark	Bluetooth 5.0 Mesh	PIR	Photocell	\checkmark		Low-bay max. óm		IP20	IP20/IP65 Surface mount box Blanking plates	142
	HBIR32/R	220-240Vac	Dual-channel DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest	\checkmark	Bluetooth 5.0 Mesh	PIR	Photocell	\checkmark		Reinforced Low-bay max. 6m		IP20	IP20/IP65 Surface mount box Blanking plates	142
	HBIR32/W	220-240Vac	Dual-channel DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest		Bluetooth 5.0 Mesh	PIR	Photodiode	\sim		Wide Range Low-bay max. 6m		IP20	IP20/IP65 Surface mount box	142
	HBIR32/H	220-240Vac	Dual-channel DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest	\checkmark	Bluetooth 5.0 Mesh	PIR	Photocell	\checkmark		High-bay max. 15m		IP20	IP20/IP65 Surface mount box Blanking plates	142
	HBIR32/RH	220-240Vac	Dual-channel DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest	\checkmark	Bluetooth 5.0 Mesh	PIR	Photocell	\checkmark		Reinforced High-bay max. 20m		IP20	IP20/IP65 Surface mount box	142
NE	HCD049/BT	220-240Vac	DALI-2 30mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm		Bluetooth 5.0 Mesh	PIR	Photocell			High-bay max. 15m		IP65		143
NE	W! HCD450VDS/BT	- 220-240Vac	DALI-2 & 0/1-10V & Volt-free & On/Off DALI-2: 40mA 0/1-10V & On/Off: 2x800VA/2x1000W Volt-free: <48VDC[<2A], <240VAC[<3.6A]	Tri-level Control Daylight Harvest Circadian Rhythm		Bluetooth 5.0 Mesh	HF	Photocell			Reinforced High-bay max. 25m		IP65		144

Overview: DALI & DALI-2 Output (tri-level dimming / daylight harvest)

	র্থ	Input	Output	Built-in Program	Tunable White Control	Bluetooth 5.0 Mesh/ RF Frequency	Detection Technology	Daylight Sensor	Active Lux Switching	True Presence Detection	Install Height	Dip-Switch/ Rotary Switch /Remote Controller	IP Rate	Accessories & Variants	Page
NE	M HMW84	220-240Vac	DALI-2 40mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm		Bluetooth 5.0 Mesh	HF (New Robust Antenna)	Photocell			High-bay max. 15m		IP65	3 installation variants: Surface/ Conduit/ Clamp	145
N		220-240Vac	DALI-2 40mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm		Bluetooth 5.0 Mesh	Dual-Sense PIR + HF (New Robust Antenna)	Photocell			High-bay max. 15m		IP65	3 installation variants: Surface/ Conduit/ Clamp 3 lens options	145
NE	HBMW29/PRO/TY	220-240Vac	DALI-2 80mA Power Supply (PSU)	Tri-level Control	\checkmark	Bluetooth (Tuya)	HF (New Robust Antenna)	Photodiode		\checkmark	Low-bay max. 3m		IP20	IP20/IP65 Surface mount box	147
NE	HMW84/TY	220-240Vac	DALI 40mA Power Supply (PSU)	Tri-level Control		Bluetooth (Tuya)	HF (New Robust Antenna)	Photodiode			High-bay max. 15m		IP65	3 installation variants: Surface/ Conduit/ Clamp	148
	HBIR29/SV SILVAIR	220-240Vac	DALI/DALI-2 60mA Power Supply (PSU)	Tri-level Control Daylight Harvest		Bluetooth (Silvair)	PIR	Photocell			Low-bay max. óm		IP20	IP20/IP65 Surface mount box Blanking plates	148
	HBIR29/SV/R SILVAIR	220-240Vac	DALI/DALI-2 60mA Power Supply (PSU)	Tri-level Control Daylight Harvest		Bluetooth (Silvair)	PIR	Photocell			Reinforced Low-bay max. 6m		IP20	IP20/IP65 Surface mount box Blanking plates	148
	HBIR29/SV/H SILVAIR	220-240Vac	DALI/DALI-2 60mA Power Supply (PSU)	Tri-level Control Daylight Harvest		Bluetooth (Silvair)	PIR	Photocell	\checkmark		High-bay max. 15m		IP20	IP20/IP65 Surface mount box Blanking plates	148
	HBIR29/SV/RH SILVAIR	220-240Vac	DALI/DALI-2 60mA Power Supply (PSU)	Tri-level Control Daylight Harvest	\checkmark	Bluetooth (Silvair)	PIR	Photocell			Reinforced High-bay max. 20m		IP20	IP20/IP65 Surface mount box	148
NE	HBIR29/CA	220-240Vac	DALI/DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm		Bluetooth (Casambi)	PIR	Photocell			Low-bay max. 6m		IP20	IP20/IP65 Surface mount box Blanking plates	149
NE	HBIR29/CA/R	220-240Vac	DALI/DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm		Bluetooth (Casambi)	PIR	Photocell			Reinforced Low-bay max. 6m		IP20	IP20/IP65 Surface mount box Blanking plates	149
NE	₩! HBIR29/CA/W	220-240Vac	DALI/DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm		Bluetooth (Casambi)	PIR	Photodiode			Wide Range Low-bay max. óm		IP20	IP20/IP65 Surface mount box	149

6	Overvie	ew: D	ALI 8	, DA	LI-	2 0	utput	t (tri-le	evel	dimr	ning	/ day	ylig	ght harv	est)
NEW	HBIR29/CA/H	220-240Vac	DALI/DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm	\checkmark	Bluetooth (Casambi)	PIR	Photocell			High-bay max. 15m		IP20	IP20/IP65 Surface mount box Blanking plates	149
NEW	HBIR29/CA/RH	220-240Vac	DALI/DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm	\checkmark	Bluetooth (Casambi)	PIR	Photocell	\checkmark		High-bay max. 20m		IP20	IP20/IP65 Surface mount box	149
NEW	HMW27/PRO	220-240Vac	DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest			HF (New Robust Antenna)	Photocell	\checkmark		Low-bay max. 3m	HRC-11	IP20	IP20/IP65 Surface mount box	152
NEW	HMW27/H	220-240Vac	DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest			HF (New Robust Antenna)	Photocell	\checkmark		High-bay max. 15m	HRC-11	IP20	IP20/IP65 Surface mount box	152
NEW	HMW23D2/PRO	220-240Vac Consumption Max. 2mA from DALI Bus	DALI/DALI-2 Command					Photodiode			Low-bay max. 3m		IP20	IP20/IP65 Surface mount box	153
NEW	HMW23D2/H	220-240Vac Consumption Max. 2mA from DALI Bus	DALI/DALI-2 Command				HF (New Robust Antenna)	Photodiode			High-bay max. 15m		IP20	IP20/IP65 Surface mount box	153
	HIR27	220-240Vac	DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest			PIR	Photocell	\checkmark		Low-bay max. óm	HRC-11	IP20	IP20/IP65 Surface mount box Blanking plates	157
	HIR27/R	220-240Vac	DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest			PIR	Photocell	\checkmark		Reinforced Low-bay max. 6m	HRC-11	IP20	IP20/IP65 Surface mount box Blanking plates	157
	HIR27/H	220-240Vac	DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest	\checkmark		PIR	Photocell	\checkmark		High-bay max. 15m	HRC-11	IP20	IP20/IP65 Surface mount box Blanking plates	157
	HIR27/RH	220-240Vac	DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest			PIR	Photocell	\checkmark		Reinforced High-bay max. 20m	HRC-11	IP20	IP20/IP65 Surface mount box	157
NEW	HIR23/D2	220-240Vac Consumption Max. 2mA from DALI Bus	DALI/DALI-2 Command				PIR	Photodiode			Low-bay max. 6m		IP20	IP20/IP65 Surface mount box Blanking plates	157

Overview: DALI & DALI-2 Output (tri-level dimming / daylight harvest)

	2	Input	Output	Built-in Program	Tunable White Control	Bluetooth 5.0 Mesh/ RF Frequency	Detection Technology	Daylight Sensor	Active Lux Switching	True Presence Detection	Install Height	Dip-Switch/ Rotary Switch /Remote Controller	' IP Rate	Accessories & Variants	Page
NEW	HIR23/D2/R	220-240Vac Consumption Max. 2mA from DALI Bus	DALI/DALI-2 Command				PIR	Photodiode			Reinforced Low-bay max. óm		IP20	IP20/IP65 Surface mount box Blanking plates	157
NEW	HIR23/D2/W	9.5-22.5Vdc Consumption Max. 12mA from DALI Bus	DALI/DALI-2 Command				PIR	Photodiode			Wide Range Low-bay max. 6m		IP20	IP20/IP65 Surface mount box	157
NEW	HIR23/D2/H	9.5-22.5Vdc Consumption Max. 12mA from DALI Bus	DALI/DALI-2 Command				PIR	Photodiode			High-bay max. 15m		IP20	IP20/IP65 Surface mount box Blanking plates	157
NEW	HIR23/D2/RH	9.5-22.5Vdc Consumption Max. 12mA from DALI Bus	DALI/DALI-2 Command				PIR	Photodiode			Reinforced High-bay max. 20m		IP20	IP20/IP65 Surface mount box	157
	HIR32	220-240Vac	Dual-channel DALI 80mA Power Supply (PSU)	Daylight Harvest	\checkmark		PIR	Photocell			Low-bay max. óm	HRC-11	IP20	IP20/IP65 Surface mount box Blanking plates	158
	HIR32/R	220-240Vac	Dual-channel DALI 80mA Power Supply (PSU)	Daylight Harvest	\checkmark		PIR		Photocell	\checkmark	Reinforced Low-bay max. 6m	HRC-11	IP20	IP20/IP65 Surface mount box Blanking plates	158
	HIR32/H	220-240Vac	Dual-channel DALI 80mA Power Supply (PSU)	Daylight Harvest	\checkmark		PIR	Photocell	\checkmark		High-bay max. 15m	HRC-1 1	IP20	IP20/IP65 Surface mount box Blanking plates	158
	HCD049	220-240Vac	DALI-2 30mA Power Supply (PSU)	Tri-level Control Daylight Harvest	\checkmark		PIR	Photocell	\checkmark		High-bay max. 15m	HRC-11	IP65		160
	HMW14	220-240Vac	DALI-2 40mA Power Supply (PSU)	Daylight Harvest			HF	Photocell			High-bay max. 15m	Rotary Switches & HRC-11	IP20	Surface mount box Flush mount box	162
	HMW15	220-240Vac	DALI-2 40mA Power Supply (PSU)	Tri-level Control			HF	Photodiode	\checkmark		High-bay max. 15m	Rotary Switches & HRC-11	IP20	Surface mount box Flush mount box	162
	HMW24	220-240Vac	DALI-2 40mA Power Supply (PSU)	Daylight Harvest			HF	Photocell			Low-bay max. 6m	Rotary Switches & HRC-11	IP20	IP20/IP65 Surface mount box	164
	HMW25	220-240Vac	DALI-2 40mA Power Supply (PSU)	Tri-level Control			HF	Photocell	\checkmark		Low-bay max. 6m	Rotary Switches & HRC-11	IP20	IP20/IP65 Surface mount box	165
NEW	нмwз6	220-240Vac Consumption Max. 2mA from DALI Bus	DALI/DALI-2 Command				HF (New Robust Antenna)	Photocell			High-bay max. 15m		IP65	3 installation variants: Surface/ Conduit/ Clamp	166





Overview: Human Centric Lighting & Tunable White Control

	З	Input	Output	Built-in Program	Tunable White Control	Bluetooth 5.0 Mesh/ RF Frequency	Detection Technology	Daylight Sensor	Active Lux Switching	True Presence Detection	Install Height	Dip-Switch/ Rotary Switch /Remote Controller	IP Rate	Accessories & Variants	Page
	HBIR31/R	220-240Vac	DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest	~	Bluetooth 5.0 Mesh	PIR	Photocell	\checkmark		Reinforced Low-bay max. óm		IP20	IP20/IP65 Surface mount box Blanking plates	140
	HBIR3 1/W	220-240Vac	DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest	\checkmark	Bluetooth 5.0 Mesh	PIR	Photodiode	\checkmark		Wide Range Low-bay max. óm		IP20	IP20/IP65 Surface mount box	140
	HBIR31/H	220-240Vac	DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest	\checkmark	Bluetooth 5.0 Mesh	PIR	Photocell	\checkmark		High-bay max. 15m		IP20	IP20/IP65 Surface mount box Blanking plates	140
	HBIR31/RH	220-240Vac	DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest	\checkmark	Bluetooth 5.0 Mesh	PIR	Photocell	\checkmark		Reinforced High-bay max. 20m		IP20	IP20/IP65 Surface mount box	140
NEV	√. HBIR29/2CH ♥ ♥ ♥ ♥	220-240Vac	DALI-2 + Voll-free CH1: 24VDC<2A, 250VAC<2A CH2: 50mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm	\checkmark	Bluetooth 5.0 Mesh	PIR	Photocell	\checkmark		Low-bay max. 6m		IP20	IP20/IP65 Surface mount box Blanking plates	141
NEV	J! HBIR29/2CH/R	220-240Vac	DALI-2 + Volt-free CH1: 24VDC<2A, 250VAC<2A CH2: 50mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm	\checkmark	Bluetooth 5.0 Mesh	PIR	Photocell			Reinforced Low-bay max. óm		IP20	IP20/IP65 Surface mount box Blanking plates	141
NEV	√! HBIR29/2CH/W ∛	220-240Vac	DALI-2 + Volt-free CH1: 24VDC <2A, 250VAC <2A CH2: 50mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm	\checkmark	Bluetooth 5.0 Mesh	PIR	Photocell	\checkmark		Wide Range Low-bay max. 6m		IP20	IP20/IP65 Surface mount box	141
NEV	√! HBIR29/2CH/H ⁸ € € € € €	220-240Vac	DALI-2 + Volt-free CH1: 24VDC<2A, 250VAC<2A CH2: 50mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm	\checkmark	Bluetooth 5.0 Mesh	PIR	Photocell	\checkmark		High-bay max. 15m		IP20	IP20/IP65 Surface mount box Blanking plates	141
NEV	√! HBIR29/2CH/RH 3 √ 1 1 1 1 1	220-240Vac	DALI-2 + Volt-free CH1: 24VDC<2A, 250VAC<2A CH2: 50mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm	\checkmark	Bluetooth 5.0 Mesh	PIR	Photocell	\checkmark		Reinforced High-bay max. 20m		IP20	IP20/IP65 Surface mount box	141

Overview: Human Centric Lighting & Tunable White Control

	S.	Input	Output	Built-in Program	Tunable White Control	Bluetooth 5.0 Mesh/ RF Frequency	Detection Technology	Daylight Sensor	Active Lux Switching	True Presence Detection	Install Height	Dip-Switch/ Rotary Switch /Remote Controller	IP Rate	Accessories & Variants	Page
	HBHC25	220-240Vac	Dual-channel DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm	\checkmark	Bluetooth 5.0 Mesh	PIR	Photocell	\checkmark		Low-bay max. óm		IP20	IP20/IP65 Surface mount box Blanking plates	142
	HBHC25/R	220-240Vac	Dual-channel DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm	\checkmark	Bluetooth 5.0 Mesh	PIR	Photocell			Reinforced Low-bay max. 6m		IP20	IP20/IP65 Surface mount box Blanking plates	142
	HBHC25/W	220-240Vac	Dual-channel DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm		Bluetooth 5.0 Mesh	PIR	Photodiode			Wide Range Low-bay max. óm		IP20	IP20/IP65 Surface mount box	142
	HBHC25/H	220-240Vac	Dual-channel DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm	\checkmark	Bluetooth 5.0 Mesh	PIR	Photocell			High-bay max. 15m		IP20	IP20/IP65 Surface mount box Blanking plates	142
	HBHC25/RH	220-240Vac	Dual-channel DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm	\checkmark	Bluetooth 5.0 Mesh	PIR	Photocell	\checkmark		Reinforced High-bay max. 20m		IP20	IP20/IP65 Surface mount box	142
	HBIR32	220-240Vac	Dual-channel DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest	\checkmark	Bluetooth 5.0 Mesh	PIR	Photocell	\checkmark		Low-bay max. óm		IP20	IP20/IP65 Surface mount box Blanking plates	142
	HBIR32/R	220-240Vac	Dual-channel DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest	\checkmark	Bluetooth 5.0 Mesh	PIR	Photocell	\checkmark		Reinforced Low-bay max. 6m		IP20	IP20/IP65 Surface mount box Blanking plates	142
	HBIR32/W	220-240Vac	Dual-channel DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest	\checkmark	Bluetooth 5.0 Mesh	PIR	Photodiode	\checkmark		Wide Range Low-bay max. óm		IP20	IP20/IP65 Surface mount box	142
	HBIR32/H	220-240Vac	Dual-channel DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest	\checkmark	Bluetooth 5.0 Mesh	PIR	Photocell	\checkmark		High-bay max. 15m		IP20	IP20/IP65 Surface mount box Blanking plates	142
	HBIR32/RH	220-240Vac	Dual-channel DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest		Bluetooth 5.0 Mesh	PIR	Photocell	\checkmark		Reinforced High-bay max. 20m		IP20	IP20/IP65 Surface mount box	142
NEV	N HCD049/BT	220-240Vac	DALI-2 30mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm	\checkmark	Bluetooth 5.0 Mesh	PIR	Photocell	\checkmark		High-bay max. 15m		IP65		143



Overview: Human Centric Lighting & Tunable White Control

	S _	Input	Output	Built-in Program	Tunable White Control	Bluetooth 5.0 Mesh/ RF Frequency	Detection Technology	Daylight Sensor	Active Lux Switching	True Presence Detection	Install Height	Dip-Switch/ Rotary Switch /Remote Controller	IP Rate	Accessories & Variants	Page
NEW	HBIR29/CA/W	220-240Vac	DALI/DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm	\checkmark	Bluetooth (Casambi)	PIR	Photodiode	\checkmark		Wide Range Low-bay max. 6m		IP20	IP20/IP65 Surface mount box	149
NEW	HBIR29/CA/H	220-240Vac	DALI/DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm	\checkmark	Bluetooth (Casambi)	PIR	Photocell			High-bay max. 15m		IP20	IP20/IP65 Surface mount box Blanking plates	1 49
NEW	HBIR29/CA/RH	220-240Vac	DALI/DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm		Bluetooth (Casambi)	PIR	Photocell			Reinforced High-bay max. 20m		IP20	IP20/IP65 Surface mount box	149
NEW	HMW27/PRO	220-240Vac	DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest	\checkmark		HF (New Robust Antenna)	Photocell	\checkmark	\checkmark	Low-bay max. 3m	HRC-11	IP20	IP20/IP65 Surface mount box	152
NEW	HMW27/H	220-240Vac	DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest	\checkmark		HF (New Robust Antenna)	Photocell	\checkmark		High-bay max. 15m	HRC-11	IP20	IP20/IP65 Surface mount box	152
	HIR32	220-240Vac	Dual-channel DALI 80mA Power Supply (PSU)	Daylight Harvest	\checkmark		PIR	Photocell	\checkmark		Low-bay max. óm	HRC-11	IP20	IP20/IP65 Surface mount box Blanking plates	158 ;
	HIR32/R	220-240Vac	Dual-channel DALI 80mA Power Supply (PSU)	Daylight Harvest	\checkmark		PIR	Photocell	\checkmark		Reinforced Low-bay max. 6m	HRC-11	IP20	IP20/IP65 Surface mount box Blanking plates	158 ;
	HIR32/H	220-240Vac	Dual-channel DALI 80mA Power Supply (PSU)	Daylight Harvest	\checkmark		PIR	Photocell	\checkmark		High-bay max. 15m	HRC-11	IP20	IP20/IP65 Surface mount box Blanking plates	158 ;
NEW	HMW37	220-240Vac	DALI-2 40mA Power Supply (PSU)	Tri-level Control Daylight Harvest	\checkmark		HF (New Robust Antenna)	Photocell	\checkmark		High-bay max. 15m	Rotary Switches & HRC-11	IP65	3 installation variants: Surface/ Conduit/ Clamp	167
NEW	HIM37	220-240Vac	DALI-2 40mA Power Supply (PSU)	Tri-level Control Daylight Harvest	\checkmark		Dual-Sense PIR + HF (New Robust Antenna)	Photocell	\checkmark		High-bay max. 15m	Rotary Switches & HRC-11	IP65	3 installation methods: Surface/ Conduit/ Clamp 3 lens options	173
	HCD049	220-240Vac	DALI-2 40mA Power Supply (PSU)	Tri-level Control Daylight Harvest	\checkmark		PIR	Photocell			High-bay max. 15m	HRC-11	IP65		160
	HIR27	220-240Vac	DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest	\checkmark		PIR	Photocell	\checkmark		Low-bay max. óm	HRC-11	IP20	IP20/IP65 Surface mount box Blanking plates	1 57

Overview: Human Centric Lighting & Tunable & Tunable White Control Input Output Builtin Program Tunable Bluetooth 5.0 Mesh/ RF Detection Technology Daylight Sensor Active Presence Mitted Install Height Dip-Switch/ Rotary Switch / Remote Controller IP Accessories & Page HR27/R DALL2 Trilevel Control Trilevel Control Trilevel Control Trilevel Control Trilevel Control Trilevel Control Marce Ma

	220-240Vac	80mA Power Supply (PSU)	Control Daylight Harvest	\checkmark	PIR	Photocell	\checkmark	Low-bay max. 6m	HRC-11	IP20	Surtace mount box Blanking plates	157
HIR27/H	220-240Vac	DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest	\checkmark	PIR	Photocell	\checkmark	High-bay max. 15m	HRC-11	IP20	IP20/IP65 Surface mount box Blanking plates	157
HIR27/RH	220-240Vac	DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest	\checkmark	PIR	Photocell		Reinforced High-bay max. 20m	HRC-11	IP20	IP20/IP65 Surface mount box	157

Overview: Dual-Sense (HF+PIR)



Overview: Dual-Sense (HF+PIR)



Overview: Batten-fit / Bolt-on Mount Style

6		Ö	verview: B	atten	-tit /	Bolt-	on <i>I</i>	Νου	nt Si	yle			
	3	Input	Output	Bluetooth 5.0 Mesh /RF Frequency	Detection Technology	Daylight Sensor	Active Lux Switching	Install Height	Dip-Switch Settings	Remote Controller	IP Rate	Accessories & Variants	Page
NEV	[∬] _{HC049V/BT} ₿O	220-240Vac	0/1-10V Tri-level Control Daylight Harvest 400VA/800W		PIR	Photocell	\checkmark	High-bay max. 15m			IP65		144
NEW	J! HCD049/BT	220-240Vac	DALI-2 Tri-level Control Daylight Harvest Circadian Rhythm 30mA Power Supply (PSU)		PIR	Photocell	\checkmark	High-bay max. 15m			IP65		143
	HCD049	220-240Vac	DALI-2 Tri-level Control Daylight Harvest 30mA Power Supply (PSU)		PIR	Photocell	\checkmark	High-bay max. 15m		HRC-11	IP65		160
	HC049S	220-240Vac	On/Off 400VA/800W		PIR	Photodiode		High-bay max. 15m		HRC-11	IP65		160
	HC030S	220-240Vac	On/Off 800VA/1600W		HF	Photodiode		High-bay max. 15m			IP20	Optional extended conduit thread	175
	HC4305	120-277Vac	On/Off 1000VA/2000W		HF	Photodiode		High-bay max. 15m	\checkmark		IP20	Optional extended conduit thread	175

Overview: RF (primary & secondary Control)

		Overv			(pri	mary	& sec	cond	ary C	ont	roij			
3														
HMW38/RF	220-240Vac	1-10V Tri-level Control 800VA/1000W	√ Transmitter Receiver 433/868 MHz	\checkmark	\checkmark	HF	Photodiode	\checkmark	High-bay max. 15m		√ HRC-11	IP65	3 installation variants: Surface/ Conduit/ Clamp	167
HMW39/RF	220-240Vac	DALI Tri-level Control 40mA Power Supply (PSU)	√ Transmitter Receiver 433/868 MHz	\checkmark	\checkmark	HF	Photodiode		High-bay max. 15m		√ HRC-11	IP65	3 installation variants: Surface/ Conduit/ Clamp	168
HIM38/RF	220-240Vac	1-10V Tri-level Control 800VA/1000W	√ Transmitter Receiver 433/868 MHz	\checkmark	\checkmark	Dual-Sense PIR + HF	Photodiode	\checkmark	High-bay max. 15m		√ HRC-11	IP65	3 installation variants: Surface/Conduit /Clamp 3 lens options	174
HIM39/RF	220-240Vac	DALI Tri-level Control 40mA Power Supply (PSU)	√ Transmitter Receiver 433/868 MHz	\checkmark		Dual-Sense PIR + HF	Photodiode	\checkmark	High-bay max. 15m		√ HRC-11	IP65	3 installation variants: Surface/Conduit /Clamp 3 lens options	174





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	Ů,	Input	Output	Built-in Program	Tunable White Control	Bluetooth 5.0 Mesh/ RF Frequency	Detection Technology	Daylight Sensor	Active Lux Switching	Install Height	Dip-Switch/ Rotary Switch /Remote Controller	IP Rate	Accessories & Variants	Page
NEV	N HBIR29/2CH/RH 8 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	220-240Vac	DALI-2 + Volt-free CH1: 24VDC<2A, 250VAC<2A CH2: 50mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm		Bluetooth 5.0 Mesh	PIR	Photocell	\checkmark	Reinforced High-bay max. 20m	1	P20	IP20/IP65 Surface mount box	141
	HBHC25/H	220-240Vac	Dual-channel DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm		Bluetooth 5.0 Mesh	PIR	Photocell	\checkmark	High-bay max. 15m	1	P20	IP20/IP65 Surface mount box Blanking plates	142
	HBHC25/RH	220-240Vac	Dual-channel DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm		Bluetooth 5.0 Mesh	PIR	Photocell		Reinforced High-bay max. 20m	I	P20	IP20/IP65 Surface mount box	142
	HBIR32/H	220-240Vac	Dual-channel DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest		Bluetooth 5.0 Mesh	PIR	Photocell	\checkmark	High-bay max. 15m	I	P20	IP20/IP65 Surface mount box Blanking plates	142
	HBIR32/RH	220-240Vac	Dual-channel DALI-2 80mA Power Supply (PSU)	Tri-level Control Daylight Harvest		Bluetooth 5.0 Mesh	PIR	Photocell	\checkmark	Reinforced High-bay max. 20m	I	P20	IP20/IP65 Surface mount box	142
NEV	HCD049/BT	220-240Vac	DALI-2 30mA Power supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm		Bluetooth 5.0 Mesh	PIR	Photocell		High-bay max. 15m	I	P65		143
NEV	HC049V/BT	220-240Vac	0/1-10V 400VA/800W	Tri-level Control Daylight Harvest		Bluetooth 5.0 Mesh	PIR	Photocell	\checkmark	High-bay max. 15m	I	P65		144
NEV	NI HCD450VDS/BT	220-240Vac	DALI-2 & 0/1-10V & Volt-free & On/Off DALI-2: 40mA 0/1-10V & On/Off: 2x800VA/2x1000W Volt-free: <48VDC(<2A), <240VAC(<3.6A)	Tri-level Control Daylight Harvest Circadian Rhythm		Bluetooth 5.0 Mesh	HF	Photocell	\checkmark	Reinforced High-bay max. 25m	I	P65		144
	HBIR36/H	220-240Vac	Dual-channel Trailing Edge 2x100VA/2X150W	Tri-level Control Daylight Harvest		Bluetooth 5.0 Mesh	PIR	Photocell		High-bay max. 15m	I	P20	IP20/IP65 Surface mount box Blanking plates	147
	HBIR36/RH	220-240Vac	Dual-channel Trailing Edge 2x100VA/2X150W	Tri-level Control Daylight Harvest		Bluetooth 5.0 Mesh	PIR	Photocell	\checkmark	Reinforced High-bay max. 20m	I	P20	IP20/IP65 Surface mount box	147

6			Ov	ervie	ewa	: Mic	d-bay	۷&۲	ligh	-bay				
	S	Input	Output	Built-in Program	Tunable White Control	Bluetooth 5.0 Mesh/ RF Frequency	Detection Technology	Daylight Sensor	Active Lux Switching	Install Height	Dip-Switch/ Rotary Switch /Remote Controller	/ IP Rate	Accessories & Variants	Page
NEW	MMW84	220-240Vac	DALI-2 40mA Power supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm		Bluetooth 5.0 Mesh	HF (New Robust Antenna)	Photocell	\checkmark	High-bay max. 15m		IP65	3 installation variants: Surface/ Conduit/ Clamp	145
NEW	нмw98 8 8	220-240Vac	0/1-10V 800VA/1000W	Tri-level Control Daylight Harvest		Bluetooth 5.0 Mesh	HF (New Robust Antenna)	Photocell	\checkmark	High-bay max. 15m		IP65	3 installation variants: Surface/ Conduit/ Clamp	145
NEW	HIM84	220-240Vac	DALI-2 40mA Power supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm		Bluetooth 5.0 Mesh	Dual-Sense PIR + HF (New Robust Antenna)	Photocell		High-bay max. 15m		IP65	3 installation variants: Surface/ Conduit/ Clamp 3 lens options	146
NEW	HIM98	220-240Vac	0/1-10V 800VA/1000W	Tri-level Control Daylight Harvest		Bluetooth 5.0 Mesh	Dual-Sense PIR + HF (New Robust Antenna)	Photocell		High-bay max. 15m		IP65	3 installation variants: Surface/ Conduit/ Clamp 3 lens options	146
NL	HMW84/TY	220-240Vac	DALI 40mA Power supply (PSU)	Tri-level Control		Bluetooth (Tuya)	HF (New Robust Antenna)	Photodiode		High-bay max. 15m		IP65	3 installation variants: Surface/ Conduit/ Clamp	148
	HBIR29/SV/H SILVAIR	220-240Vac	DALI/DALI-2 60mA Power supply (PSU)	Tri-level Control Daylight Harvest	\checkmark	Bluetooth (Silvair)	PIR	Photocell		High-bay max. 15m		IP20	IP20/IP65 Surface mount box Blanking plates	148
	HBIR29/SV/RH SILVAIR	220-240Vac	DALI/DALI-2 60mA Power supply (PSU)	Tri-level Control Daylight Harvest		Bluetooth (Silvair)	PIR	Photocell		Reinforced Hígh-bay max. 20m		IP20	IP20/IP65 Surface mount box	148
NEV	HBIR29/CA/H	220-240Vac	DALI/DALI-2 80mA Power supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm		Bluetooth (Casambi)	PIR	Photocell	\checkmark	High-bay max. 15m		IP20	IP20/IP65 Surface mount box	149
NEW	HBIR29/CA/RH	220-240Vac	DALI/DALI-2 80mA Power supply (PSU)	Tri-level Control Daylight Harvest Circadian Rhythm		Bluetooth (Casambi)	PIR	Photocell	\checkmark	Reinforced High-bay max. 20m		IP20	IP20/IP65 Surface mount box	149
	HBIR3O/CA/H	220-240Vac	Bluetooth Command only			Bluetooth (Casambi)	PIR	Photocell		High-bay max. 15m		IP20	IP20/IP65 Surface mount box Blanking plates	150

6			Over	viev	V: I	Mid	-bay	άH	Igh	bay				
	2	Input	Output	Built-in Program	Tunable White Control	Bluetooth 5.0 Mesh/ RF Frequency	Detection Technology	Daylight Sensor	Active Lux Switching	Install Height	Dip-Switch/ Rotary Switch /Remote Controller	IP Rate	Accessories & Variants	Page
NEW	<mark>Л.</mark> нмw28/н	220-240Vac	On/Off 800VA/1200W				HF (New Robust Antenna)	Photodiode	\checkmark	High-bay max. 15m	Dip-Switches & HRC-11	IP20	IP20/IP65 Surface mount box	151
NEW	MHW27/H	220-240Vac	DALI-2 80mA Power supply (PSU)	Tri-level Control Daylight Harvest			HF (New Robust Antenna)	Photocell	\checkmark	High-bay max. 15m	HRC-11	IP20	IP20/IP65 Surface mount box	152
NEW	HMW23D2/H	220-240Vac Consumption Max. 2mA from DALI Bus	DALI/DALI-2 Command				HF (New Robust Antenna)	Photodiode		High-bay max. 15m		IP20	IP20/IP65 Surface mount box	153
	HIR28/H	220-240Vac	On/Off 400VA/800W				PIR	Photodiode	\checkmark	High-bay max. 15m	HRC-11	IP20	IP20/IP65 Surface mount box Blanking plates	155
	HIR28/RH	220-240Vac	On/Off 400VA/800W				PIR	Photodiode	\checkmark	Reinforced High-bay max. 20m	HRC-11	IP20	IP20/IP65 Surface mount box	155
NEW	HIR28VFC/H	220-240Vac	On/Off 240VAC≤5A				PIR	Photodiode	\checkmark	High-bay max. 15m	√ HRC-12	IP20	IP20/IP65 Surface mount box Blanking plates	155
NEW	HIR28DCVFC/H	12-48Vdc	On/Off 48VDC<5A				PIR	Photodiode	\checkmark	High-bay max. 15m	HRC-12	IP20	IP20/IP65 Surface mount box Blanking plates	156
	HIR27/H	220-240Vac	DALI-2 80mA Power supply (PSU)	Tri-level Control Daylight Harvest			PIR	Photocell	\checkmark	High-bay max. 15m	HRC-11	IP20	IP20/IP65 Surface mount box Blanking plates	157
	HIR27/RH	220-240Vac	DALI-2 80mA Power supply (PSU)	Tri-level Control Daylight Harvest			PIR	Photocell	\checkmark	Reinforced High-bay max. 20m	HRC-11	IP20	IP20/IP65 Surface mount box	157
NEW	NHR23/D2/H	9.5-22.5Vdc Consumption max. 12mA from DALI Bus	DALI/DALI-2 Command				PIR	Photodiode		High-bay max. 15m		IP20	IP20/IP65 Surface mount box Blanking plates	157
NEW	NHIR23/D2/RH	9.5-22.5Vdc Consumption max. 12mA from DALI Bus	DALI/DALI-2 Command				PIR	Photodiode		Reinforced High-bay max. 20m		IP20	IP20/IP65 Surface mount box	157
	HIR32/H	220-240Vac	Dual-channel DALI 80mA Power Supply (PSU)	Daylight Harvest			PIR	Photocell	\checkmark	High-bay max. 15m	HRC-11	IP20	IP20/IP65 Surface mount box Blanking plates	158

6			Over	viev	v: N	۸id	-bay	&⊦	ligh	-bay				
		Input	Output	Built-in Program	Tunable White Control	Bluetooth .0 Mesh/ RF requency	Detection Technology	Daylight Sensor	Active Lux Switching	Install Height	Dip-Switch/ Rotary Switch /Remote Controller	IP Rate	Accessories & Variants	Page
	HCD049	220-240Vac	DALI 30mA Power Supply (PSU)	Tri-level Control Daylight Harvest	\checkmark		PIR	Photocell		High-bay max. 15m	HRC-11	IP65	5	160
	HC049S	220-240Vac	On/Off 400VA/800W				PIR	Photodiode	e √	High-bay max. 15m	HRC-11	IP65	i	160
	HMW11	220-240Vac	1-10V 800VA/1600W	Tri-level Control			HF	Photodiode	\checkmark	High-bay max. 15m	Rotary Switches & HRC-11	IP20	Surface mount box Flush mount box	161
	HMW12	220-240Vac	1-10V 800VA/1600W	Daylight Harvest			HF	Photocell	\checkmark	High-bay max. 15m	Rotary Switches & HRC-11	IP20	Surface mount box Flush mount box	161
	HMW14	220-240Vac	DALI 40mA Power Supply (PSU)	Daylight Harvest			HF	Photocell	\checkmark	High-bay max. 15m	Rotary Switches & HRC-11	IP20	Surface mount box Flush mount box	162
	HMW15	220-240Vac	DALI 40mA Power Supply (PSU)	Tri-level Control			HF	Photodiode		High-bay max. 15m	Rotary Switches & HRC-11	IP20	Surface mount box Flush mount box	162
	HMW30	220-240Vac	On/Off 800VA/1000W				HF	Photodiode	\checkmark	High-bay max. 15m	Rotary Switches & HRC-11	IP65	3 installation variants: Surface/ Conduit/ Clamp	165
NEW	HMW33	220-240Vac	1-10V 800VA/1000W	Tri-level Control Daylight Harvest			HF (New Robust Antenna)	Photocell	\checkmark	High-bay max. 15m	Rotary Switches & HRC-11	IP65	3 installation variants: Surface/ Conduit/ Clamp	166
NEW	HMW36	220-240Vac Consumption Max. 12mA from DALI Bus	DALI/DALI-2 Command				HF (New Robust Antenna)	Photocell		High-bay max. 15m		IP65	3 installation variants: Surface/ Conduit/ Clamp	166
NEW	HMW37	220-240Vac	DALI-2 Max. 40mA Power Supply (PSU)	Tri-level Control Daylight Harvest	\checkmark		HF (New Robust Antenna)	Photocell	\checkmark	High-bay max. 15m	Rotary Switches & HRC-11	IP65	3 installation variants: Surface/ Conduit/ Clamp	167
	HMW38/RF	220-240Vac	1-10V 800VA/1000W	Tri-level Control	Ti 1 4	RF ransmitter Receiver 133/868 MHz	HF	Photodiode	\checkmark	High-bay max. 15m	Rotary Switches & HRC-11	IP65	3 installation variants: Surface/ Conduit/ Clamp	167

6			Ove	ervie	ew:	Mic	d-bay	۷ & F	ligh	-bay				
	5	Input	Output	Built-in Program	Tunable White Control	Bluetooth 5.0 Mesh/ RF Frequency	Detection Technology	Daylight Sensor	Active Lux Switching	Install Height	Dip-Switch/ Rotary Switch /Remote Controller	IP Rate	Accessories & Variants	Page
	HMW39/RF	220-240Vac	DALI 40mA Power Supply (PSU)	Tri-level Control		RF Transmitter Receiver 433/868 MHz	HF	Photodiode	\checkmark	High-bay max. 15m	Rotary Switches & HRC-11	IP65	3 installation variants: Surface/ Conduit/ Clamp	168
	HIM30	220-240Vac	On/Off 800VA/1000W				Dual-Sense PIR + HF	Photodiode	\checkmark	High-bay max. 15m	Rotary Switches & HRC-11	IP65	3 installation variants: Surface/ Conduit/ Clamp 3 lens options	172
NEW	HIM33	220-240Vac	1-10V 800VA/1000W	Tri-level Control Daylight Harvest			Dual-Sense PIR + HF (New Robust Antenna)	Photocell	\checkmark	High-bay max. 15m	Rotary Switches & HRC-1 1	IP65	3 installation variants: Surface/ Conduit/ Clamp 3 lens options	172
NEW	HIM36	220-240Vac Consumption Max. 2mA from DALI Bus	DALI/DALI-2 Command				Dual-Sense PIR + HF (New Robust Antenna)	Photocell		High-bay max. 15m		IP65	3 installation variants: Surface/ Conduit/ Clamp 3 lens options	173
NEW		220-240Vac	DALI-2 40mA Power Supply (PSU)	Tri-level Control Daylight Harvest			Dual-Sense PIR + HF (New Robust Antenna)	Photocell	\checkmark	High-bay max. 15m	Rotary Switches & HRC-11	IP65	3 installation variants: Surface/ Conduit/ Clamp 3 lens options	173
	HIM38/RF	220-240Vac	1-10V 800VA/1000W	Tri-level Control		RF Transmitter Receiver 433/868 MHz	Dual-Sense PIR + HF	Photodiode	\checkmark	High-bay max. 15m	Rotary Switches & HRC-1 1	IP65	3 installation variants: Surface/ Conduit/ Clamp 3 lens options	174
	HIM39/RF	220-240Vac	DALI 40mA Power Supply (PSU)	Tri-level Control		RF Transmitter Receiver 433/868 MHz	Dual-Sense PIR + HF (New Robust Antenna)	Photodiode	\checkmark	High-bay max. 15m	Rotary Switches & HRC-11	IP65	3 installation variants: Surface/ Conduit/ Clamp 3 lens options	174
	HC030S	220-240Vac	On/Off 800VA/1600W				HF	Photodiode		High-bay max. 15m	Dip-Switches	IP20	Optional extended conduit thread	175
	HC430S	120-277Vac	On/Off 1000VA/2000W				HF	Photodiode		High-bay max. 15m	Dip-Switches	IP20	Optional extended conduit thread	175
	HCD450VDS/RC	220-240Vac	DALI & 1-10V & Volt-free & On/Off DALI: 40mA Power Supply (PSU) 1-10V & On/Off: 2x800VA/2x1000W Volt-free: <48VDC[<2A), <240VAC[<3.6A]	Daylight Harvest			HF	Photocell		Reinforced High-bay max. 25m	HRC-05	IP65		176

Overview: Trailing Edge Output

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					Bluetooth 5.0 Mesh										
	8	HBIR36	220-240Vac	Dual-channel Trailing Edge Tri-level Control Daylight Harvest 2x100VA/2x150W		PIR	Photocell		Low-bay max. 6m			IP20	IP20/IP65 Surface mount box Blanking plates	147	
	8	HBIR36/R	220-240Vac	Dual-channel Trailing Edge Tri-level Control Daylight Harvest 2x100VA/2x150W	\checkmark	PIR	Photocell	\checkmark	Reinforced Low-bay max. 6m			IP20	IP20/IP65 Surface mount box Blanking plates	147	
	8	HBIR36/W	220-240Vac	Dual-channel Trailing Edge Tri-level Control Daylight Harvest 2x100VA/2x150W	\checkmark	PIR	Photodiode	\checkmark	Wide Range Low-bay max. 6m			IP20	IP20/IP65 Surface mount box	147	
	8	HBIR36/H	220-240Vac	Dual-channel Trailing Edge Tri-level Control Daylight Harvest 2x100VA/2x150W	\checkmark	PIR	Photocell	\checkmark	High-bay max. 15m			IP20	IP20/IP65 Surface mount box Blanking plates	147	
	8	HBIR36/RH	220-240Vac	Dual-channel Trailing Edge Tri-level Control Daylight Harvest 2x100VA/2x150W	\checkmark	PIR	Photocell	\checkmark	Reinforced High-bay max. 20m			IP20	IP20/IP65 Surface mount box	147	
		HIM16	220-240Vac	Trailing Edge Daylight Harvest 150VA/200W		Dual-Sense PIR + HF	Photocell	\checkmark	Low-bay max. 6m	Rotary Switches	√ HRC-11	IP20	Surface mount box Flush mount box Blanking Plates	171	
		HIM17	220-240Vac	Trailing Edge Tri-level Control 150VA/200W		Dual-Sense PIR + HF	Photodiode		Low-bay max. 6m	Rotary Switches	√ HRC-11	IP20	Surface mount box Flush mount box Blanking Plates	171	

Overview: Products for Special Applications

	کر ر	Input	Output	Bluetooth 5.0 Mesh	Detection Technology	Daylight Sensor	Active Lux Switching	True Presence Detectior	Install Height	Dip-Switch Settings	Remote Controller	IP Rate	Accessories & Variants	Page
NEV	J! HCD450VDS/BT	220-240Vac	DALI-2 & 0/1-10V & Volt-free & On/Off Tri-level Control Daylight Harvest Circadian Rhythm DALI-2: 40mA 0/1-10V & On/Off: 2x800VA/2x1000W Volt-free: <48VDC(<2A), <240VAC(<3.6A)	\checkmark	HF	Photocell			Reinforced High-bay max. 25m			IP65		144
NEV	HMW28VFC/PRO	220-240Vac	On/Off 240VAC≤5A		HF (New Robust Antenna)	Photodiode			Low-bay max. 3m		HRC-12	IP20	IP20/IP65 Surface mount box	154
NEV	HMW28DCVFC/PRO	12-48Vdc	On/Off 48VDC≤5A		HF (New Robust Antenna)	Photodiode		\checkmark	Low-bay max. 3m		√ HRC-12	IP20	IP20/IP65 Surface mount box	154
NEV	HIR28VFC	220-240Vac	On/Off 240VAC≤5A		PIR	Photodiode			Low-bay max. óm		HRC-12	IP20	IP20/IP65 Surface mount box Blanking plates	155
NEV	HIR28VFC/R	220-240Vac	On/Off 240VAC≤5A		PIR	Photodiode			Reinforced Low-bay max. 6m		HRC-12	IP20	IP20/IP65 Surface mount box Blanking plates	155
NEV		220-240Vac	On/Off 240VAC<5A		PIR	Photodiode	\checkmark		Wide Range Low-bay max. 6m		√ HRC-12	IP20	IP20/IP65 Surface mount box	155
NEV	J! HIR28VFC∕H	220-240Vac	On/Off 240VAC<5A		PIR	Photodiode	\checkmark		High-bay max. 15m		HRC-12	IP20	IP20/IP65 Surface mount box Blanking plates	155
NEV	HIR28DCVFC	12-48Vdc	On/Off 48VDC<5A		PIR	Photodiode			Low-bay max. óm		√ HRC-12	IP20	IP20/IP65 Surface mount box Blanking plates	156
NEV	HIR28DCVFC/R	12-48Vdc	On/Off 48VDC<5A		PIR	Photodiode			Reinforced Low-bay max. 6m		HRC-12	IP20	IP20/IP65 Surface mount box Blanking plates	156
Overview: Products for Special Applications

6		Ove	Overview: Products for Special Applications											
		Input	Output	Bluetooth 5.0 Mesh	Detection Technology	Daylight Sensor	Active Lux Switching	True Presence Detection	Install Height	Dip-Switch Settings	Remote Controller	IP Rate	Accessories & Variants	Page
NEW	HIR28DCVFC/W	12-48Vdc	On/Off 48VDC≤5A		PIR	Photodiode	\checkmark		Wide Range Low-bay max. óm		√ HRC-12	IP20	IP20/IP65 Surface mount box	156
NEW	HIR28DCVFC/H	12-48Vdc	On/Off 48VDC<5A		PIR	Photodiode	\checkmark		High-bay max. 15m		√ HRC-12	IP20	IP20/IP65 Surface mount box Blanking plates	156
	HC402S/T	120-277Vac	On/Off 400VA/1200W		HF	Photodiode			Low-bay max. 6m	\checkmark		IP20		176
	HCD450VDS/RC	220-240Vac	DALI & 1-10V & Volt-free & On/Off Daylight Harvest DALI: 40mA 1-10V & On/Off: 2x800VA/2x1000W Volt-free: <48VDC[<2A], <240VAC[<3.6A]		HF	Photocell	\checkmark		Reinforced High-bay max. 25m		√ HRC-05	IP65		176
	HC009S/EXT	220-240Vac	On/Off 400VA/1200W		HF	Photodiode			Low-bay max. 3m	\checkmark		IP20		177
	HC019V/EXT	220-240Vac	1-10V Tri-level Control 800VA/2000W		HF	Photodiode			Low-bay max. 3m			IP20		177



- True presence detection technology (*See pg. 12)
- Bluetooth[®] 5.0 SIG Mesh (*See full details on pg. 05-11)
- On/Off control with relay output
- Robust HF antenna design against wireless interference (*See pg. 13)
- Daylight sensor: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Max installation height: 3m
- Max detection range: Ø =8m (diameter)
- Max true presence detection range: $\emptyset = 8m$ (diameter)
- Sensor settings via mobile/tablet app & PC web platform
- Switch-Dim (PUSH) terminal
- Optional IP20/IP65 ceiling mount box accessory HA03
- Tool-free installation: removable terminal blocks and clips

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 800VA capacitive / 1200W resistive
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Max withstandable in-rush current: 120A@160µs
- Ta: -20°C ~ +50°C

Suitable for





Features & Functions

- Bluetooth[®] 5.0 SIG Mesh (*See full details on pg. 05-11)
- On/Off control with relay output
- Robust HF antenna design against wireless interference (*See pg. 13)
- Daylight sensor: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =24m (forklift) / 14m (human)
- Sensor settings via mobile/tablet app & PC web platform
- Switch-Dim (PUSH) terminal
- Optional IP20/IP65 ceiling mount box accessory HA03
- Tool-free installation: removable terminal blocks and clips

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 800VA capacitive / 1200W resistive
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Max withstandable in-rush current: 120A@160µs
- Ta: -20°C ~ +50°C





- True presence detection technology (*See pg. 12)
- Bluetooth[®] 5.0 SIG Mesh (*See full details on pg. 05-11)
- DALI/DALI-2 with power supply unit built-in
- Compliant to IEC62386_101, 103, 351
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting / Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Robust HF antenna design against wireless interference (*See pg. 13)
- Support D4i driver and collect energy, fault & diagnostics data
- RTC keeps real-time for up to 2 weeks against power failure
- Daylight sensor: Photocell
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Max installation height: 3m
- Max detection range: Ø =8m (diameter)
- Max true presence detection range: Ø =8m (diameter)
- Sensor settings via mobile/tablet app & PC web platform

NEW! HBMW29/H



Optional: Surface Mount Box (IP20/IP65)

HA03: Default IP20; IP65 is optional upon request

Features & Functions

- Bluetooth[®] 5.0 SIG Mesh (*See full details on pg. 05-11)
- DALI/DALI-2 with power supply unit built-in
- Compliant to IEC62386_101, 103, 351
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting / Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Robust HF antenna design against wireless interference (*See pg. 13)
- Support D4i driver and collect energy, fault & diagnostics data
- RTC keeps real-time for up to 2 weeks against power failure
- Daylight sensor: Photocell
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =24m (forklift) / 14m (human)
- Sensor settings via mobile/tablet app & PC web platform

- 2 Switch-Dim (PUSH) terminals
- Optional IP20/IP65 ceiling mount box accessory HA03
- Tool-free installation: removable terminal blocks and clips

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 80mA DALI power supply
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Ta: -20°C ~ +50°C

Suitable for





Removable Terminal Blocks and Clips

- 2 Switch-Dim (PUSH) terminals
- Optional IP20/IP65 ceiling mount box accessory HA03
- Tool-free installation: removable terminal blocks and clips

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 80mA DALI power supply
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Ta: -20°C ~ +50°C





- True presence detection technology (*See pg. 12)
- Bluetooth[®] 5.0 SIG Mesh (*See full details on pg. 05-11)
- Two DALI/DALI-2 channel outputs (via DALI broadcast)
- Compliant to IEC62386_101, 103, 351
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting / Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Robust HF antenna design against wireless interference (*See pg. 13)
- Support D4i driver and collect energy, fault & diagnostics data
- RTC keeps real-time for up to 2 weeks against power failure
- Daylight sensor: Photocell
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Max installation height: 3m
- Max detection range: Ø =8m (diameter)
- Max true presence detection range: ∅ =8m (diameter)
- Sensor settings via mobile/tablet app & PC web platform

- 3 Switch-Dim (PUSH) terminals
- Optional IP20/IP65 ceiling mount box accessory HA03
- Tool-free installation: removable terminal blocks and clips

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 80mA DALI power supply
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Ta: -20°C ~ +50°C





- Bluetooth[®] 5.0 SIG Mesh (*See full details on pg. 05-11)
- On/Off control with relay output
- Daylight sensor: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Sensor settings via mobile/tablet app & PC web platform
- Switch-Dim (PUSH) terminal
- Optional IP20/IP65 ceiling mount box accessory HA03
- Optional blind insert / blanking plate accessory
- (Not applicable on HBIR28/W, HBIR28/RH)
- Tool-free installation: removable terminal blocks and clips

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 800VA capacitive / 800W resistive
- Warming-up period: 20s
- Passive infrared (PIR) detection
- Max withstandable in-rush current: 80A@160µs
- ∎ Ta: -20°C ~ +50°C

Suitable for





Features & Functions

- Bluetooth[®] 5.0 SIG Mesh (*See full details on pg. 05-11)
- 2-channel On/Off control: Switched L + VFC
- VFC: Volt-free Contact / Dry Contact with NO + NC relay 2-in-1
- Daylight sensor: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Sensor settings via mobile/tablet app & PC web platform
- 2 Switch-Dim (PUSH) terminals
- Optional IP20/IP65 ceiling mount box accessory HA03
- Optional blind insert / blanking plate accessory
- (Not applicable on HBIR28/2CH/W, HBIR28/2CH/RH)
- Tool-free installation: removable terminal blocks and clips

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading for Switched L): 400VA
- (Max Loading for VFC output): ≤2A @ 24VDC & ≤2A @ 250VAC
- Warming-up period: 20s
- Passive infrared (PIR) detection
- Max withstandable in-rush current: 80A@160µs
- Ta: -20°C ~ +50°C





- Bluetooth[®] 5.0 SIG Mesh (*See full details on pg. 05-11)
- DALI/DALI-2 with power supply unit built-in
- Compliant to IEC62386_101, 103, 351
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting / Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Support D4i driver and collect energy, fault & diagnostics data
- Daylight sensor: Photocell, except HBIR29/W: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Sensor settings via mobile/tablet app & PC web platform
- 2 Switch-Dim (PUSH) terminals
- Optional IP20/IP65 ceiling mount box accessory HA03
- Optional blind insert / blanking plate accessory
- (Not applicable on HBIR29/W, HBIR29/RH)
- Tool-free installation: removable terminal blocks and clips

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 80mA DALI power supply
- Warming-up period: 20s
- Passive infrared (PIR) detection
- Ta: -20°C ~ +50°C





- Bluetooth[®] 5.0 SIG Mesh (*See full details on pg. 05-11)
- DALI/DALI-2 with power supply unit built-in
- Compliant to IEC62386_101, 103, 351
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Support DT8 drivers with tunable white control
- Support D4i driver and collect energy, fault & diagnostics data
- Daylight sensor: Photocell, except HBIR31/W: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Sensor settings via mobile/tablet app & PC web platform
- 2 Switch-Dim (PUSH) terminals

NEW!

- Optional IP20/IP65 ceiling mount box accessory HA03
- Optional blind insert / blanking plate accessory (Not applicable on HBIR31/W, HBIR31/RH)
- Tool-free installation: removable terminal blocks and clips

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 80mA DALI power supply
- Warming-up period: 20s
- Passive infrared (PIR) detection
- Ta: -20°C ~ +50°C

Suitable for





(180° detection)

Features & Functions

IP65 is optional upon request

Bluetooth[®] 5.0 SIG Mesh (*See full details on pg. 05-11)

- 2-channel control: DALI-2 output + VFC
- DALI/DALI-2 with power supply unit built-in
- Compliant to IEC62386_101, 103, 351
- VFC: Volt-free Contact / Dry Contact with NC relay
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting / Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Support D4i driver and collect energy, fault & diagnostics data
- Daylight sensor: Photocell, except HBIR29/2CH/W: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Sensor settings via mobile/tablet app & PC web platform
- 2 Switch-Dim (PUSH) terminals
- Optional IP20/IP65 ceiling mount box accessory HA03
- Optional blind insert / blanking plate accessory (Not applicable on HBIR29/2CH/W, HBIR29/2CH/RH)

Removable Terminal Blocks and Clips

€ Tool-free installation: removable terminal blocks and clips

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz 50/60Hz
- Output (Max Loading for DALI-2): 50mA DALI power supply
- Max Loading for VFC output:
- ≤2A @ 24VDC & ≤2A @ 250VAC
- Warming-up period: 20s
- Passive infrared (PIR) detection
- Ta: -20°C ~ +50°C





Blind option 2

(180° detection)

Removable Terminal Blocks and Clips

HA03: Default IP20; IP65 is optional upon request

- Bluetooth[®] 5.0 SIG Mesh (*See full details on pg. 05-11)
- Two DALI/DALI-2 channel outputs (via DALI broadcast)
- Compliant to IEC62386_101, 103, 351
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Support DT8 drivers with tunable white control
- Support D4i driver and collect energy, fault & diagnostics data
- RTC keeps real-time for up to 2 weeks against power failure
- Daylight sensor: Photocell, except HBIR32/W: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Sensor settings via mobile/tablet app & PC web platform
- 3 Switch-Dim (PUSH) terminals
- Optional IP20/IP65 ceiling mount box accessory HA03
- Optional blind insert / blanking plate accessory (Not applicable on HBIR32/W, HBIR32/RH)
- Tool-free installation: removable terminal blocks and clips

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 80mA DALI power supply (50mA + 30mA)
- Warming-up period: 20s
- Passive infrared (PIR) detection
- Ta: -20°C ~ +50°C

Suitable for



HCD049/BT

Features & Functions

- Bluetooth 5.0 SIG Mesh (*See full details on pg. 05-11)
- DALI/DALI-2 with power supply unit built-in
- Compliant to IEC62386_101, 103, 351
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting / Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Support D4i driver and collect energy, fault & diagnostics data
- Batten-fit / Bolt-on mount style
- Daylight sensor: Photocell
- Active Lux Switching technology (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =24m (forklift) / 20m (human)
- Conduit thread: M20 * 1.5mm
- Sensor settings via mobile/tablet app & PC web platform
- IP65 rated

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading):
 30mA DALI power supply
- Warming-up period: 20s
- Passive infrared (PIR) detection
- Ta: -20°C ~ +50°C



NEW! HC049V/BT S

Features & Functions

- Bluetooth[®] 5.0 SIG Mesh (*See full details on pg. 05-11)
- 0/1-10V dimming control with relay output
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Batten-fit / Bolt-on mount style
- Daylight sensor: Photocell
- Active Lux Switching technology (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =24m (forklift) / 20m (human)
- Conduit thread: M20 * 1.5mm
- Sensor settings via mobile/tablet app & PC web platform
- IP65 rated

NEW! HCD450VDS/BT



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Features & Functions

- Bluetooth[®] 5.0 SIG Mesh (*See full details on pg. 05-11)
- DALI/DALI-2 with power supply unit built-in
- Compliant to IEC62386_101, 103, 351
- 0/1-10V dimming control with relay output
- 2-channel On/Off control: Switched L + VFC
- VFC: Volt-free Contact / Dry Contact with NO + NC relay 2-in-1
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting / Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Support D4i driver and collect energy, fault & diagnostics data
- Daylight sensor: Photocell
- Active Lux Switching technology (*See pg. 15)
- Type of relay: Total 3 relays, one for VFC, two for 0/1-10V & Switched L
- Max installation height: 25m (forklift) / 20m (human)
- Max detection range: 40m (wall mounted)
- Sensor settings via mobile/tablet app & PC web platform
- IP65 rated

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 400VA capacitive / 800W resistive
- Warming-up period: 20s
- Passive infrared (PIR) detection
- Max withstandable in-rush current: 80A@160µs
- Ta: -20°C ~ +50°C

Suitable for



Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading):
 - DALI-2: 40mA DALI power supply 0/1-10V & On/Off: 2x800VA capacitive / 2x1000W resistive Volt-free:<48VDC(<2A); <240VAC(<3.6A)
 - VOIHIEE.546VDC(52A), 5240VAC(5
- Warming-up period: 20s
- Microwave detection (HF 10.525GHz \pm 75MHz)
- Max withstandable in-rush current: 120A@160µs
- Ta: -20°C ~ +50°C





- Bluetooth[®] 5.0 SIG Mesh (*See full details on pg. 05-11)
- DALI/DALI-2 with power supply unit built-in
- Compliant to IEC62386_101, 103, 351
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting / Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Robust HF antenna design against wireless interference (*See pg. 13)
- Support D4i driver and collect energy, fault & diagnostics data
- 3 installation styles: Surface-mount / Conduit / Clamp
- Daylight sensor: Photocell
- Active Lux Switching technology (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =24m (forklift) / 14m (human)
- Sensor settings via mobile/tablet app & PC web platform
- IP65 rated

NEW!

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 40mA DALI power supply
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Ta: -20°C ~ +50°C

Suitable for





Features & Functions

- Bluetooth[®] 5.0 SIG Mesh (*See full details on pg. 05-11)
- 0/1-10V dimming control with relay output
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Robust HF antenna design against wireless interference (*See pg. 13)
- 3 installation styles: Surface-mount / Conduit / Clamp
- Daylight sensor: Photocell
- Active Lux Switching technology (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =24m (forklift) / 14m (human)
- Sensor settings via mobile/tablet app & PC web platform
- IP65 rated

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 800VA capacitive / 1000W resistive
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Max withstandable in-rush current: 120A@160µs
- Ta: -20°C ~ +50°C





- Bluetooth[®] 5.0 SIG Mesh (*See full details on pg. 05-11)
- DALI/DALI-2 with power supply unit built-in
- Compliant to IEC62386_101, 103, 351
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting / Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Robust HF antenna design against wireless interference (*See pg. 13)
- Support D4i driver and collect energy, fault & diagnostics data
- 3 installation styles: Surface-mount / Conduit / Clamp
- Four detection modes: HF only / PIR only / HF or PIR / HF and PIR
- Daylight sensor: Photocell
- Active Lux Switching technology (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: HF: Ø =24m (forklift) / 14m (human) PIR: Ø =24m (forklift) / 20m (human)
- Sensor settings via mobile/tablet app & PC web platform
- IP65 rated

NEW!

• 3 Optional lens cover to choose from with different detection patterns

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 40mA DALI power supply
- Warming-up period: 20s
- Dual-sense[™]: microwave + passive infrared (HF + PIR) detection (*See pg. 27)
- Ta: -20°C ~ +50°C

Suitable for



Features & Functions

- Bluetooth[®] 5.0 SIG Mesh (*See full details on pg. 05-11)
- 0/1-10V dimming control with relay output
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Robust HF antenna design against wireless interference (*See pg. 13)
- 3 installation styles: Surface-mount / Conduit / Clamp
- Four detection modes: HF only / PIR only / HF or PIR / HF and PIR
- Daylight sensor: Photocell
- Active Lux Switching technology (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: HF: Ø =24m (forklift) / 14m (human)
 PIR: Ø =24m (forklift) / 20m (human)
- Sensor settings via mobile/tablet app & PC web platform
- i IP65 rated
- 3 Optional lens cover to choose from with different detection patterns

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 800VA capacitive / 1000W resistive
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Dual-senseTM: microwave + passive infrared (HF + PIR) detection (*See pg. 27)
- Max withstandable in-rush current: 120A@160µs
- Ta: -20°C ~ +50°C





- Bluetooth[®] 5.0 SIG Mesh (*See full details on pg. 05-11)
- Two trailing-edge channel outputs
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Daylight sensor: Photocell, except HBIR36/W: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Sensor settings via mobile/tablet app & PC web platform
- 2 Switch-Dim (PUSH) terminals
- Optional IP20/IP65 ceiling mount box accessory HA03
- Optional blind insert / blanking plate accessory (Not applicable on HBIR36/W, HBIR36/RH)

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Tool-free installation: removable terminal blocks and clips

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 2x100VA capacitive / 2x150W resistive
- Warming-up period: 20s
- Passive infrared (PIR) detection
- Ta: -20°C ~ +50°C

NEW! دەرم HBMW29/PRO/TY





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HA03: Default IP20; IP65 is optional upon request

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Features & Functions

- True presence detection technology (*See pg. 12)
- Tuya 88 Bluetooth® module built-in
- DALI/DALI-2 with power supply unit built-in
- Tri-level dimming (*See pg. 19)
- Support DT8 drivers with tunable white control
- Robust HF antenna design against wireless interference (*See pg. 13)

- Daylight sensor: Photodiode (PD)
- Max installation height: 3m
- Max detection range: Ø =8m (diameter)
- Max true presence detection range: Ø =8m (diameter)
- Sensor settings via mobile/tablet app & PC web platform
- 2 Switch-Dim (PUSH) terminals
- Optional IP20/IP65 ceiling mount box accessory HA03
- Tool-free installation: removable terminal blocks and clips

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 80mA DALI power supply
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Ta: -20°C ~ +50°C

Removable Terminal Blocks and Clips





- Tuya Bluetooth® module built-in
- DALI broadcast with power supply unit built-in
- Tri-level dimming (*See pg. 19)
- Support DT8 drivers with tunable white control
- Robust HF antenna design against wireless interference (*See pg. 13)
- 3 installation styles: Surface-mount / Conduit / Clamp
- Daylight sensor: Photodiode (PD)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =24m (forklift) / 14m (human)
- Sensor settings via mobile/tablet app & PC web platform
- IP65 rated

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 40mA DALI power supply
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Ta: -20°C ~ +50°C





- Silvair 🚷 Bluetooth® module built-in
- DALI broadcast with power supply unit built-in
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Support DT8 drivers with tunable white control
- Daylight sensor: Photocell
- Active Lux Switching technology (*See pg. 15)
- Sensor settings via mobile/tablet app & PC web platform
- 2 Switch-Dim (PUSH) terminals
- Optional IP20/IP65 ceiling mount box accessory HA03
- Optional blind insert / blanking plate accessory (Not applicable on HBIR29/SV/RH)
- Tool-free installation: removable terminal blocks and clips

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 80mA DALI power supply
- Warming-up period: 20s
- Passive infrared (PIR) detection
- Ta: -20°C ~ +50°C

Suitable for



NEW! HBIR29/CA Series 8 Reinforced High-bay (with 3-pyro design) • Max height: 20m (forklift)/12m (human) serection range ∅ =10m detection range Ø =18m (forklift)/12m (h) • Max detection range Ø =40m (forklift)/30m (hu Optional: Surface Mount Box (IP20/IP65) Tool-free Installation! Optional: Blind Insert/Blanking Plate Blind option 1 (Aisle detection) HA03: Default IP20; Blind option 2 IP65 is optional upon request Removable Terminal Blocks and Clips (180° detection)

Features & Functions

- Casambi (8) Bluetooth[®] module built-in
- DALI broadcast with power supply unit built-in
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Human Centric Lighting / Circadian Rhythm (*See pg. 24)
- Support DT8 drivers with tunable white control
- Daylight sensor: Photocell, except HBIR29/CA/W: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Sensor settings via Casambi mobile/tablet app & PC web platform
- 2 Switch-Dim (PUSH) terminals
- Optional IP20/IP65 ceiling mount box accessory HA03
- Optional blind insert / blanking plate accessory (Not applicable on HBIR29/CA/W, HBIR29/CA/RH)
- Tool-free installation: removable terminal blocks and clips

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 80mA DALI power supply
- Warming-up period: 20s
- Passive infrared (PIR) detection
- Ta: -20°C ~ +50°C





- Optional IP20/IP65 ceiling mount box accessory HA03
- Optional blind insert / blanking plate accessory
- Tool-free installation: removable terminal blocks and clips

HMW28/PRO Optional: Surface Mount Box (IP20/IP65) Tool-free Installation! HRO12: Default IP20; IP65 is optional upon request Removable Terminal Blocks and Clips

Features & Functions

- True presence detection technology (*See pg. 12)
- On/Off control with relay output
- Robust HF antenna design against wireless interference (*See pg. 13)
- Daylight sensor: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Max installation height: 3m
- Max detection range: Ø =8m (diameter)
- Max true presence detection range: Ø =8m (diameter)
- Sensor settings via DIP-Switches & handset HRC-12
- Switch-Dim (PUSH) terminal
- Optional IP20/IP65 ceiling mount box accessory HA03
- Tool-free installation: removable terminal blocks and clips

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 800VA capacitive / 1200W resistive
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Max withstandable in-rush current: 120A@160µs
- Ta: -20°C ~ +50°C



Image: Supervision of the second system Image: Supervisio

- On/Off control with relay output
- Robust HF antenna design against wireless interference (*See pg. 13)
- Daylight sensor: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: \emptyset =26m (forklift) / 16m (human)
- Sensor settings via DIP-Switches & handset HRC-11
- Switch-Dim (PUSH) terminal
- Optional IP20/IP65 ceiling mount box accessory HA03
- Tool-free installation: removable terminal blocks and clips

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 800VA capacitive / 1200W resistive
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Max withstandable in-rush current: 120A@160µs
- Ta: -20°C ~ +50°C

Suitable for



NEW! HMW21/PRO



Optional: Surface Mount Box (IP20/IP65)

HA03: Default IP20;



IP65 is optional upon request Removable Terminal Blocks and Clips

Features & Functions

- True presence detection technology (*See pg. 12)
- 1-10V control with relay output
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Robust HF antenna design against wireless interference (*See pg. 13)
- Daylight sensor: Photocell
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Max installation height: 3m
- Max detection range: Ø =8m (diameter)
- Max true presence detection range: Ø =8m (diameter)
- Sensor settings via handset HRC-11
- Switch-Dim (PUSH) terminal
- Optional IP20/IP65 ceiling mount box accessory HA03
- Tool-free installation: removable terminal blocks and clips

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 400VA capacitive / 800W resistive
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Max withstandable in-rush current: 80A@160µs
- Ta: -20°C ~ +50°C



NEW! HMW27/PRO Optional: Surface Mount Box (IP20/IP65) Tool-free Installation! DALID D HAO3 · Default IP20 CER IP65 is optional upon request Removable Terminal Blocks and Clips **Features & Functions**

- True presence detection technology (*See pg. 12)
- DALI/DALI-2 with power supply unit built-in
- Compliant to IEC62386_101, 103, 351
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Support DT8 drivers with tunable white control
- Robust HF antenna design against wireless interference (*See pg. 13)
- Daylight sensor: Photocell
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Max installation height: 3m
- Max detection range: Ø =8m (diameter)
- Max true presence detection range: Ø =8m (diameter)
- Sensor settings via handset HRC-11
- Switch-Dim (PUSH) terminal & Sync terminal
- Optional IP20/IP65 ceiling mount box accessory HA03
- Tool-free installation: removable terminal blocks and clips

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 80mA DALI power supply
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Ta: -20°C ~ +50°C

Suitable for





Features & Functions

- DALI/DALI-2 with power supply unit built-in
- Compliant to IEC62386_101, 103, 351
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Support DT8 drivers with tunable white control
- Robust HF antenna design against wireless interference (*See pg. 13)
- Daylight sensor: Photocell
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =26m (forklift) / 16m (human)
- Sensor settings via handset HRC-11
- Switch-Dim (PUSH) terminal & Sync terminal
- Optional IP20/IP65 ceiling mount box accessory HA03
- Tool-free installation: removable terminal blocks and clips

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 80mA DALI power supply
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Ta: -20°C ~ +50°C



NEW!

HMW23D2/PRO



Features & Functions

- True presence detection technology (*See pg. 12)
- DALI-2 multi-sensor input device
- Compliant to IEC62386_101, 103, 303, 304, 351
- Robust HF antenna design against wireless interference (*See pg. 13)
- Daylight sensor: Photodiode (PD)
- Max installation height: 3m
- Max detection range: Ø =8m (diameter)
- Max true presence detection range: Ø =8m (diameter)
- Optional IP20/IP65 ceiling mount box accessory HA03
- Tool-free installation: removable terminal blocks and clips

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Current Consumption: Max. 2mA from DALI Bus
- Output: DALI/DALI-2 command
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Ta: -20°C ~ +50°C

Suitable for



HMW23D2/H Optional: Surface Mount Box (IP20/IP65) Tool-free Installation! Optional: Surface Mount Box (IP20/IP65) Tool-free Installation! HA03: Default IP20; IP65 is optional upon request Removable Terminal Blocks and Clips

Features & Functions

- DALI-2 multi-sensor input device
- Compliant to IEC62386_101, 103, 303, 304, 351
- Robust HF antenna design against wireless interference (*See pg. 13)
- Daylight sensor: Photodiode (PD)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =22m (forklift) / 12m (human)
- Optional IP20/IP65 ceiling mount box accessory HA03
- Tool-free installation: removable terminal blocks and clips

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Current Consumption: Max. 2mA from DALI Bus
- Output: DALI/DALI-2 command
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- ∎ Ta: -20°C ~ +50°C





- True presence detection technology (*See pg. 12)
- On/Off control with relay output
- VFC: Volt-free Contact / Dry Contact with NO relay
- Robust HF antenna design against wireless interference (*See pg. 13)
- Daylight sensor: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Max installation height: 3m
- Max detection range: Ø =8m (diameter)
- Max true presence detection range: $\emptyset = 8m$ (diameter)
- Sensor settings via handset HRC-12
- Switch-Dim (PUSH) terminal
- Optional IP20/IP65 ceiling mount box accessory HA03
- Tool-free installation: removable terminal blocks and clips

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 240VAC≤5A
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Max withstandable in-rush current: 80A@160µs
- Ta: -20°C ~ +50°C

Suitable for



NEW! HMW28DCVFC/PRO



Features & Functions

- True presence detection technology (*See pg. 12)
- On/Off control with relay output
- VFC: Volt-free Contact / Dry Contact with NO relay
- Robust HF antenna design against wireless interference (*See pg. 13)
- Daylight sensor: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Max installation height: 3m
- Max detection range: Ø =8m (diameter)
- Max true presence detection range: Ø =8m (diameter)
- Sensor settings via handset HRC-12
- Switch-Dim (PUSH) terminal
- Optional IP20/IP65 ceiling mount box accessory HA03
- Tool-free installation: removable terminal blocks and clips

Technical Data & Specifications

- Input: 12-48VDC
- Output (Max Loading): 48VDC≤5A
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Ta: -20°C ~ +50°C





- On/Off control with relay output
- Daylight sensor: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Sensor settings via handset HRC-11
- Switch-Dim (PUSH) terminals
- Optional IP20/IP65 ceiling mount box accessory HA03
- Optional blind insert / blanking plate accessory (Not applicable on HIR28/RH)
- Tool-free installation: removable terminal blocks and clips

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 400VA capacitive / 800W resistive
- Warming-up period: 20s
- Passive infrared (PIR) detection
- Max withstandable in-rush current: 120A@160µs
- Ta: -20°C ~ +50°C



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- On/Off control with relay output
- VFC: Volt-free Contact / Dry Contact with NO relay
- Robust HF antenna design against wireless interference (*See pg. 13)
- Daylight sensor: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Sensor settings via handset HRC-12
- Switch-Dim (PUSH) terminals
- Optional IP20/IP65 ceiling mount box accessory HA03
- Optional blind insert / blanking plate accessory (Not applicable on HIR28VFC/W)
- Tool-free installation: removable terminal blocks and clips

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 240VAC≤5A
- Warming-up period: 20s
- Passive infrared (PIR) detection
- Max withstandable in-rush current: 120A@160µs
- Ta: -20°C ~ +50°C



Features & Functions

- On/Off control with relay output
- VFC: Volt-free Contact / Dry Contact with NO relay
- Robust HF antenna design against wireless interference (*See pg. 13)
- Daylight sensor: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Sensor settings via handset HRC-12
- Switch-Dim (PUSH) terminals
- Optional IP20/IP65 ceiling mount box accessory HA03
- Optional blind insert / blanking plate accessory (Not applicable on HIR28DCVFC/W)
- Tool-free installation: removable terminal blocks and clips

Technical Data & Specifications

- Input: 12-48VDC
- Output (Max Loading): 48VDC≤5A
- Warming-up period: 20s
- Passive infrared (PIR) detection
- ∎ Ta: -20°C ~ +50°C





(180° detection)

ercial Lighting

IP65 is optional upon request

- DALI-2 multi-sensor input device
- Compliant to IEC62386_101, 103, 303, 304, 351
- Daylight sensor: Photodiode (PD)
- Max installation height: 3m
- Max detection range: Ø =8m (diameter)
- Optional IP20/IP65 ceiling mount box accessory HA03
- Optional blind insert / blanking plate accessory
- (Not applicable on HIR23/D2/W, HIR23/D2/RH)
- Tool-free installation: removable terminal blocks and clips

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Current Consumption: Max. 12mA from DALI Bus
- Output: DALI/DALI-2 command
- Warming-up period: 20s
- Passive infrared (PIR) detection
- Ta: -20°C ~ +50°C



Features & Functions

- Two DALI / DALI-2 channel outputs (via DALI broadcast)
- Compliant to IEC62386_101, 103, 351
- Daylight harvest (*See pg. 19-21)
- Support DT8 drivers with tunable white control
- Daylight sensor: Photocell
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Sensor settings via handset HRC-11
- 3 Switch-Dim (PUSH) terminals
- Optional IP20/IP65 ceiling mount box accessory HA03
- Optional blind insert / blanking plate accessory
- Tool-free installation: removable terminal blocks and clips

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 80mA DALI power supply
- Warming-up period: 20s
- Passive infrared (PIR) detection
- Ta: -20°C ~ +50°C

HIR21



Features & Functions

- 1-10V dimming control with relay output
- Tri-level dimming (*See pg. 19)
- Daylight sensor: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Rotary Switch for for scene selection / fast programming
- Max installation height: 6m
- Max detection range: Ø =10m (diameter)
- Sensor settings via handset HRC-11
- Switch-Dim (PUSH) terminal
- Optional IP20/IP65 ceiling mount box accessory HA02
- Optional blind insert / blanking plate accessory

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 800VA capacitive / 1600W resistive
- Warming-up period: 20s
- Passive infrared (PIR) detection
- Max withstandable in-rush current: 120A@160µs
- Ta: -20°C ~ +50°C

Suitable for





Features & Functions

- 1-10V dimming control with relay output
- Daylight harvest (*See pg. 19-21)
- Daylight sensor: Photocell
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Rotary Switch for for scene selection / fast programming
- Max installation height: 6m
- Max detection range: Ø =10m (diameter)
- Sensor settings via handset HRC-11
- Switch-Dim (PUSH) terminal
- Optional IP20/IP65 ceiling mount box accessory HA02
- Optional blind insert / blanking plate accessory

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 800VA capacitive / 1600W resistive
- Warming-up period: 20s
- Passive infrared (PIR) detection
- Max withstandable in-rush current: 120A@160µs
- Ta: -20°C ~ +50°C



HCD049



Features & Functions

- DALI/DALI-2 with power supply unit built-in
- Compliant to IEC62386_101, 103, 351
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Support DT8 drivers with tunable white control
- Batten-fit / Bolt-on mount style
- Daylight sensor: Photocell
- Active Lux Switching technology (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =24m (forklift) / 20m (human)
- Conduit thread: M20 * 1.5mm
- Sensor settings via handset HRC-11
- IP65 rated

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading):
- 30mA DALI power supply Warming-up period: 20s
- Passive infrared (PIR) detection
- Ta: -20°C ~ +50°C

Suitable for



HC0495



Features & Functions

- On/Off control with relay output
- Batten-fit / Bolt-on mount style
- Daylight sensor: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =24m (forklift) / 20m (human)
- Conduit thread: M20 * 1.5mm
- Sensor settings via handset HRC-11
- IP65 rated

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 400VA capacitive / 800W resistive
- Warming-up period: 20s
- Passive infrared (PIR) detection
- Max withstandable in-rush current: 80A@160µs
- Ta: -20°C ~ +50°C





Features & Functions

- 1-10V dimming control with relay output
- Tri-level dimming (*See pg. 19)
- 3 installation styles: surface-mount / flush-mount / junction box mount
- Daylight sensor: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Rotary switch for for scene selection / fast programming
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =26m (forklift) / 18m (human)
- Sensor settings via handset HRC-11
- Switch-Dim (PUSH) terminal
- Optional flush mount box accessory HA06

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 800VA capacitive / 1600W resistive
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Max withstandable in-rush current: 120A@160µs
- Ta: -20°C ~ +50°C

Suitable for



HMW12



Features & Functions

- 1-10V dimming control with relay output
- Daylight harvest (*See pg. 19-21)
- 3 installation styles: surface-mount / flush-mount / junction box mount
- Daylight sensor: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Rotary switch for for scene selection / fast programming
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =26m (forklift) / 18m (human)
- Sensor settings via handset HRC-11
- Switch-Dim (PUSH) terminal
- Optional flush mount box accessory HA06

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 800VA capacitive / 1600W resistive
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz \pm 75MHz)
- Max withstandable in-rush current: 120A@160µs
- Ta: -20°C ~ +50°C





Features & Functions

- DALI broadcast with power supply unit built-in
- Daylight harvest (*See pg. 19-21)
- 3 installation styles: surface-mount / flush-mount / junction box mount
- Daylight sensor: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Rotary switch for for scene selection / fast programming
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =26m (forklift) / 18m (human)
- Sensor settings via handset HRC-11
- Switch-Dim (PUSH) & Sync terminal
- Optional flush mount box accessory HA06

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 40mA DALI power supply
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Ta: -20°C ~ +50°C

Suitable for



HMW15



Features & Functions

- DALI broadcast with power supply unit built-in
- Tri-level dimming (*See pg. 19)
- 3 installation styles: surface-mount / flush-mount / junction box mount
- Daylight sensor: Photocell
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Rotary switch for for scene selection / fast programming
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =26m (forklift) / 18m (human)
- Sensor settings via handset HRC-11
- Switch-Dim (PUSH) & Sync terminal
- Optional flush mount box accessory HA06

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 40mA DALI power supply
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Ta: -20°C ~ +50°C





Features & Functions

- On/Off control with relay output
- Daylight sensor: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Rotary switch for for scene selection / fast programming
- Max installation height: 6m
- Max detection range: Ø =12m (diameter)
- Sensor settings via handset HRC-11
- Switch-Dim (PUSH) terminal
- Optional IP20/IP65 ceiling mount box accessory HA02

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 400VA capacitive / 1200W resistive
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Max withstandable in-rush current: 80A@160µs
- Ta: -20°C ~ +50°C

Suitable for



HMW21



Features & Functions

- 1-10V dimming control with relay output
- Tri-level dimming (*See pg. 19)
- Daylight sensor: Photocell
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Rotary switch for for scene selection / fast programming
- Max installation height: 6m
- Max detection range: Ø =12m (diameter)
- Sensor settings via handset HRC-11
- Switch-Dim (PUSH) terminal
- Optional IP20/IP65 ceiling mount box accessory HA02

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 800VA capacitive / 1600W resistive
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Max withstandable in-rush current: 80A@160µs
- Ta: -20°C ~ +50°C





Features & Functions

- 1-10V dimming control with relay output
- Daylight harvest (*See pg. 19-21)
- Daylight sensor: Photocell
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Rotary switch for for scene selection / fast programming
- Max installation height: 6m
- Max detection range: Ø =12m (diameter)
- Sensor settings via handset HRC-11
- Switch-Dim (PUSH) terminal
- Optional IP20/IP65 ceiling mount box accessory HA02

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 800VA capacitive / 1600W resistive
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Max withstandable in-rush current: 80A@160µs
- Ta: -20°C ~ +50°C

Suitable for



HMW24



Features & Functions

- DALI broadcast with power supply unit built-in
- Daylight harvest (*See pg. 19-21)
- Daylight sensor: Photocell
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Rotary switch for for scene selection / fast programming
- Max installation height: 6m
- Max detection range: Ø =12m (diameter)
- Sensor settings via handset HRC-11
- Switch-Dim (PUSH) & Sync terminal
- Optional IP20/IP65 ceiling mount box accessory HA02

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 40mA DALI power supply
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Ta: -20°C ~ +50°C







Features & Functions

- DALI broadcast with power supply unit built-in
- Tri-level dimming (*See pg. 19)
- Daylight sensor: Photocell
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Rotary switch for for scene selection / fast programming
- Max installation height: 6m
- Max detection range: Ø = 12m (diameter)
- Sensor settings via handset HRC-11
- Switch-Dim (PUSH) & Sync terminal
- Optional IP20/IP65 ceiling mount box accessory HA02

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 40mA DALI power supply
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Ta: -20°C ~ +50°C

Suitable for



HMW30 Series



Features & Functions

- On/Off control with relay output
- 3 installation styles: Surface-mount / Conduit / Clamp
- Daylight sensor: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Rotary switch for for scene selection / fast programming
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =26m (forklift) / 16m (human)
- Sensor settings via handset HRC-11
- IP65 rated

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 800VA capacitive / 1000W resistive
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Max withstandable in-rush current: 120A@160µs
- Ta: -20°C ~ +50°C





- 1-10V dimming control with relay output
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Robust HF antenna design against wireless interference (*See pg. 13)
- 3 installation styles: Surface-mount / Conduit / Clamp
- Daylight sensor: Photocell
- Active Lux Switching technology (*See pg. 15)
- Rotary switch for for scene selection / fast programming
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =26m (forklift) / 16m (human)
- Sensor settings via handset HRC-11
- IP65 rated

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 800VA capacitive / 1000W resistive
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Max withstandable in-rush current: 120A@160µs
- Ta: -20°C ~ +50°C

Suitable for





Features & Functions

- DALI-2 multi-sensor input device
- Compliant to IEC62386_101, 103, 303, 304, 351
- Robust HF antenna design against wireless interference (*See pg. 13)
- 3 installation styles: Surface-mount / Conduit / Clamp
- Daylight sensor: Photocell
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =26m (forklift) / 16m (human)
- IP65 rated

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Current Consumption: Max. 2mA from DALI Bus
- Output: DALI/DALI-2 command
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz \pm 75MHz)
- Ta: -20°C ~ +50°C



NEW!





Features & Functions

- DALI/DALI-2 with power supply unit built-in
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Support DT8 drivers with tunable white control
- Robust HF antenna design against wireless interference (*See pg. 13)
- 3 installation styles: Surface-mount / Conduit / Clamp
- Rotary switch for for scene selection / fast programming
- Daylight sensor: Photocell
- Active Lux Switching technology (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =22m (forklift) / 12m (human)
- Sensor settings via handset HRC-11
- IP65 rated

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 40mA DALI power supply
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Ta: -20°C ~ +50°C

Suitable for



HMW38/RF Series



Features & Functions

- 1-10V dimming control with relay output
- Tri-level dimming (*See pg. 19)
- RF transceiver
- RF frenquency options: FSK433MHz/FSK868MHz
- 3 installation styles: Surface-mount / Conduit / Clamp
- Rotary Switch for quick RF channel pair (*See pg. 22-23)
- Daylight sensor: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =22m (forklift) / 12m (human)
- Sensor settings via handset HRC-11
- IP65 rated

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 800VA capacitive / 1000W resistive
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Max withstandable in-rush current: 120A@160µs
- Ta: -20°C ~ +50°C



HMW39/RF Series



Features & Functions

- DALI broadcast with power supply unit built-in
- Tri-level dimming (*See pg. 19)
- RF transceiver
- RF frenquency options: FSK433MHz/FSK868MHz
- 3 installation styles: Surface-mount / Conduit / Clamp
- Rotary Switch for quick RF channel pair (*See pg. 22-23)
- Daylight sensor: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =22m (forklift) / 12m (human)
- Sensor settings via handset HRC-11
- IP65 rated

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 40mA DALI power supply
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Ta: -20°C ~ +50°C

Suitable for



HIM11



Features & Functions

- 1-10V dimming control with relay output
- Tri-level dimming (*See pg. 19)
- 3 installation styles: surface-mount / flush-mount / junction box mount
- Four detection modes: HF only / PIR only / HF or PIR / HF and PIR
- Daylight sensor: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Rotary switch for for scene selection / fast programming
- Max installation height: 6m
- Max detection range: HF: Ø =10m (diameter) PIR: Ø =10m (diameter)
- Sensor settings via handset HRC-11
- Switch-Dim (PUSH) terminal
- Optional blind insert / blanking plate accessory
- Optional flush mount box accessory HA06

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 800VA capacitive / 1600W resistive
- Output (V\ax Loading): 800V/
 Warming-up period: 20s
- Dual-sense™: microwave + passive infrared (HF + PIR) detection (*See pg. 27)
- Max withstandable in-rush current: 120A@160µs
- Ta: -20°C ~ +50°C



HIM12



Features & Functions

- 1-10V dimming control with relay output
- Daylight harvest (*See pg. 19-21)
- 3 installation styles: surface-mount / flush-mount / junction box mount
- Four detection modes: HF only / PIR only / HF or PIR / HF and PIR
- Daylight sensor: Photocell
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Rotary switch for for scene selection / fast programming
- Max installation height: 6m
- Max detection range: HF: Ø =10m (diameter) PIR: Ø =10m (diameter)
- Sensor settings via handset HRC-11
- Switch-Dim (PUSH) terminal
- Optional blind insert / blanking plate accessory
- Optional flush mount box accessory HA06

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 800VA capacitive / 1600W resistive
- Warming-up period: 20s
- Dual-senseTM: microwave + passive infrared (HF + PIR) detection (*See pg. 27)
- Max withstandable in-rush current: 120A@160µs
- Ta: -20°C ~ +50°C

Suitable for



HIM14



Features & Functions

- DALI broadcast with power supply unit built-in
- Daylight harvest (*See pg. 19-21)
- 3 installation styles: surface-mount / flush-mount / junction box mount
- Four detection modes: HF only / PIR only / HF or PIR / HF and PIR
- Daylight sensor: Photocell
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Rotary switch for for scene selection / fast programming
- Max installation height: 6m
- Max detection range: HF: Ø =10m (diameter) PIR: Ø =10m (diameter)
- Sensor settings via handset HRC-11
- Switch-Dim (PUSH) & Sync terminal
- Optional blind insert / blanking plate accessory
- Optional flush mount box accessory HA06

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 40mA DALI power supply
- Warming-up period: 20s
- Dual-senseTM: microwave + passive infrared (HF + PIR) detection (*See pg. 27)
- Ta: -20°C ~ +50°C



HIM54



- 3 installation styles: surface-mount / flush-mount / junction box mount
- \blacksquare Four detection modes: HF only / PIR only / HF or PIR / HF and PIR
- Daylight sensor: Photocell
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Rotary switch for for scene selection / fast programming
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: HF: Ø =26m (forklift) / 18m (human)
 PIR: Ø =24m (forklift) / 20m (human)
- Sensor settings via handset HRC-11
- Switch-Dim (PUSH) & Sync terminal
- Optional blind insert / blanking plate accessory
- Optional flush mount box accessory HA06
- 2 Optional lens cover to choose from with different detection patterns

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 40mA DALI power supply
- Warming-up period: 20s
- Dual-sense[™]: microwave + passive infrared (HF + PIR) detection (*See pg. 27)
- Ta: -20°C ~ +50°C

Suitable for



HIM15



Features & Functions

- DALI broadcast with power supply unit built-in
- Tri-level dimming (*See pg. 19)
- 3 installation styles: surface-mount / flush-mount / junction box mount
- Four detection modes: HF only / PIR only / HF or PIR / HF and PIR
- Daylight sensor: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Rotary switch for for scene selection / fast programming
- Max installation height: 6m
- Max detection range: HF: Ø =10m (diameter) PIR: Ø =10m (diameter)
- Sensor settings via handset HRC-11
- Switch-Dim (PUSH) & Sync terminal
- Optional blind insert / blanking plate accessory
- Optional flush mount box accessory HA06

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 40mA DALI power supply
- Warming-up period: 20s
- Dual-sense™: microwave + passive infrared (HF + PIR) detection (*See pg. 27)
- Ta: -20°C ~ +50°C


HIM16



Features & Functions

- Trailing edge output
- Daylight harvest (*See pg. 19-21)
- 3 installation styles: surface-mount / flush-mount / junction box mount
- \blacksquare Four detection modes: HF only / PIR only / HF or PIR / HF and PIR
- Daylight sensor: Photocell
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Rotary switch for for scene selection / fast programming
- Max installation height: 6m
- Max detection range: HF: \emptyset =10m (diameter) PIR: \emptyset =10m (diameter)
- Sensor settings via handset HRC-11
- Switch-Dim (PUSH)

HIM17

- Optional blind insert / blanking plate accessory
- Optional flush mount box accessory HA06

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 150VA capacitive / 200W resistive
- Warming-up period: 20s
- Dual-sense™: microwave + passive infrared (HF + PIR) detection (*See pg. 27)
- Ta: -20°C ~ +50°C

Suitable for





Features & Functions

- Trailing edge output
- Tri-level dimming (*See pg. 19)
- 3 installation styles: surface-mount / flush-mount / junction box mount
- Four detection modes: HF only / PIR only / HF or PIR / HF and PIR
- Daylight sensor: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- Rotary switch for for scene selection / fast programming
- Max installation height: 6m
- Max detection range: HF: \emptyset =10m (diameter) PIR: \emptyset =10m (diameter)
- Sensor settings via handset HRC-11
- Switch-Dim (PUSH)
- Optional blind insert / blanking plate accessory
- Optional flush mount box accessory HA06

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 150VA capacitive / 200W resistive
- Warming-up period: 20s
- Dual-sense[™]: microwave + passive infrared (HF + PIR) detection (*See pg. 27)
- Ta: -20°C ~ +50°C



HIM30 Series



Features & Functions

- On/Off control with relay output
- 3 installation styles: Surface-mount / Conduit / Clamp
- Four detection modes: HF only / PIR only / HF or PIR / HF and PIR
- Daylight sensor: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Rotary Switch for quick RF channel pair (*See pg. 22-23)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: HF: Ø =26m (forklift) / 16m (human)
- PIR: Ø =24m (forklift) / 20m (human)
- Sensor settings via handset HRC-11
- IP65 rated

NEW!

3 Optional lens cover to choose from with different detection patterns

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 800VA capacitive / 1000W resistive
- Warming-up period: 20s
- Dual-sense[™]: microwave + passive infrared (HF + PIR) detection (*See pg. 27)
- Max withstandable in-rush current: 120A@160µs

■ Ta: -20°C ~ +50°C

Suitable for





Features & Functions

- 1-10V dimming control with relay output
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Robust HF antenna design against wireless interference (*See pg. 13)
- 3 installation styles: Surface-mount / Conduit / Clamp
- Four detection modes: HF only / PIR only / HF or PIR / HF and PIR
- Daylight sensor: Photocell
- Active Lux Switching technology (*See pg. 15)
- Rotary Switch for quick RF channel pair (*See pg. 22-23)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: HF: Ø =26m (forklift) / 16m (human)
 PIR: Ø =24m (forklift) / 20m (human)
- Sensor settings via handset HRC-11
- IP65 rated
- 3 Optional lens cover to choose from with different detection patterns

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 800VA capacitive / 1000W resistive
- Warming-up period: 20s
- Dual-senseTM: microwave + passive infrared (HF + PIR) detection (*See pg. 27)
- Max withstandable in-rush current: 120A@160µs
- Ta: -20°C ~ +50°C



NEW! HIM36 Series



mount Version B: Conduit Version C: Clamp
• Conduit thread: M20 * 2mm

Features & Functions

- DALI-2 multi-sensor input device
- Compliant to IEC62386_101, 103, 303, 304, 351
- Robust HF antenna design against wireless interference (*See pg. 13)
- 3 installation styles: Surface-mount / Conduit / Clamp
- Four detection modes: HF only / PIR only / HF or PIR / HF and PIR
- Daylight sensor: Photocell
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: HF: Ø =26m (forklift) / 16m (human)
 PIR: Ø =24m (forklift) / 20m (human)
- IP65 rated

NEW!

• 3 Optional lens cover to choose from with different detection patterns

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Current Consumption: Max. 2mA from DALI Bus
- Output (Max Loading): DALI/DALI-2 command
- Warming-up period: 20s
- Dual-senseTM: microwave + passive infrared (HF + PIR) detection (*See pg. 27)

3 Lens Options

■ Ta: -20°C ~ +50°C

Suitable for





Features & Functions

- DALI/DALI-2 with power supply unit built-in
- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Support DT8 drivers with tunable white control
- Robust HF antenna design against wireless interference (*See pg. 13)
- 3 installation styles: Surface-mount / Conduit / Clamp
- Four detection modes: HF only / PIR only / HF or PIR / HF and PIR
- Daylight sensor: Photocell
- Active Lux Switching technology (*See pg. 15)
- Rotary switch for for scene selection / fast programming
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: HF: Ø =22m (forklift) / 12m (human)
 PIR: Ø =24m (forklift) / 20m (human)
- Sensor settings via handset HRC-11
- IP65 rated
- 3 Optional lens cover to choose from with different detection patterns

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 40mA DALI power supply
- Warming-up period: 20s
- Dual-senseTM: microwave + passive infrared (HF + PIR) detection (*See pg. 27)
- Ta: -20°C ~ +50°C





Features & Functions

- 1-10V dimming control with relay output
- Tri-level dimming (*See pg. 19)
- RF transceiver
- RF frenquency options: FSK433MHz/FSK868MHz
- 3 installation styles: Surface-mount / Conduit / Clamp
- Four detection modes: HF only / PIR only / HF or PIR / HF and PIR
- Rotary Switch for quick RF channel pair (*See pg. 22-23)
- Daylight sensor: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: HF: Ø =22m (forklift) / 12m (human)
 PIR: Ø =24m (forklift) / 20m (human)
- Sensor settings via handset HRC-11
- IP65 rated

HIM39/RF Series

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 800VA capacitive / 1000W resistive
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Dual-senseTM: microwave + passive infrared (HF + PIR) detection (*See pg. 27)
- Max withstandable in-rush current: 120A@160µs
- ∎ Ta: -20°C ~ +50°C

Suitable for





Features & Functions

- DALI broadcast with power supply unit built-in
- Tri-level dimming (*See pg. 19)
- RF transceiver
- RF frenquency options: FSK433MHz/FSK868MHz
- 3 installation styles: Surface-mount / Conduit / Clamp
- Four detection modes: HF only / PIR only / HF or PIR / HF and PIR
- Rotary Switch for quick RF channel pair (*See pg. 22-23)
- Daylight sensor: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: HF: Ø =22m (forklift) / 12m (human)
 PIR: Ø =24m (forklift) / 20m (human)
- Sensor settings via handset HRC-11
- IP65 rated

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 40mA DALI power supply
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Dual-senseTM: microwave + passive infrared (HF + PIR) detection (*See pg. 27)
- Ta: -20°C ~ +50°C



HC030S

Features & Functions

- On/Off control with relay output
- Batten-fit / Bolt-on mount style
- Daylight sensor: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =26m (forklift) / 18m (human)
- Conduit thread: M21 * 1.8mm (0.825inch)
- Sensor settings via DIP-Switches
- Optional extended conduit thread

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 800VA/1600W
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Max withstandable in-rush current: 120A@160µs
- Ta: -20°C ~ +50°C

Suitable for



HC430S



Features & Functions

- On/Off control with relay output
- Batten-fit / Bolt-on mount style
- Daylight sensor: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Max installation height: 15m (forklift) / 12m (human)
- Max detection range: Ø =26m (forklift) / 18m (human)
- Conduit thread: M21 * 1.8mm (0.825inch)
- Sensor settings via DIP-Switches
- Optional extended conduit thread

Technical Data & Specifications

- Input: 120-277VAC 50/60Hz
- Output (Max Loading): 1000VA/2000W
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Max withstandable in-rush current: 120A@160µs
- Ta: -20°C ~ +50°C



HC402S/T



Features & Functions

- On/Off control with relay output
- Daylight sensor: Photodiode (PD)
- Support to be connected to a triac dimmer's output, so that it achieves 10-100% dimming control
- Max installation height: 6m
- Max detection range: Ø =12m (diameter)
- Sensor settings via DIP-Switches

HCD450VDS/RC



Features & Functions

- DALI broadcast with power supply unit built-in
- 1-10V dimming control with relay output
- Daylight harvest (*See pg. 19-21)
- Daylight sensor: Photocell
- Active Lux Switching technology
- Type of relay: Total 3 relays, one for VFC, two for 0/1-10V & Switched L
- Max installation height: 25m (forklift) / 20m (human)
- Max detection range: 40m (wall mounted)
- Sensor settings via handset HRC-05
- IP65 rated

Technical Data & Specifications

- Input: 120-277VAC 50/60Hz
- Output (Max Loading): 400VA capacitive / 1200W resistive
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Max withstandable in-rush current: 80A@160µs
- Ta: -20°C ~ +50°C

Suitable for



Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading):
 - DALI-2: 40mA DALI power supply

1-10V & On/Off: 2x800VA capacitive / 2x1000W resistive Volt-free:<48VDC(<2A); <240VAC(<3.6A)

- Warming-up period: 20s
- Microwave detection (HF 10.525GHz ± 75MHz)
- Max withstandable in-rush current: 120A@160µs
- Ta: -20°C ~ +50°C



HC009S/EXT



Features & Functions

- False ceiling sensor
- On/Off control with relay output
- Daylight sensor: Photodiode (PD)
- Max installation height: 3m
- Max detection range: Ø =12m (diameter)
- Sensor settings via DIP-Switches

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 400VA capacitive / 1200W resistive
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Max withstandable in-rush current: 80A@160µs
- Ta: -20°C ~ +50°C

Suitable for



HC019V/EXT



C E 24 🔊

Features & Functions

- False ceiling sensor
- 1-10V dimming control with relay output
- Tri-level dimming (*See pg. 19)
- Daylight sensor: Photodiode (PD)
- Max installation height: 3m
- Max detection range: Ø =12m (diameter)
- Sensor settings via DIP-Switches
- Sync terminal (*See pg. 22)

Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 800VA capacitive / 2000W resistive
- Warming-up period: 20s
- Microwave detection (HF 5.8GHz ± 75MHz)
- Max withstandable in-rush current: 120A@160µs
- Ta: -20°C ~ +50°C





LED Drivers

6	Overvie	ew: B	luetoool	h 5	.0 M	esh Ena	bled LED Dr	iver w	ith Ap	р
					Dimming Interface			RJ12 Port for Sensor Connection		
NEW	HED1009/BT	Constant Current	220V-240Vac	45V	Bluetooth Switch-Dim		1-6W/ 200mA /6-30V 1.5-7.5W/ 250mA /6-30V 2-9W/ 300mA /6-30V 2-9W/ 350mA /6-25V 2.5-9W/ 400mA /6-22V 3-9W/ 500mA /6-18V 3.5-9W/ 600mA /6-15V		Insulated Terminal Cover	189
NEW	HED6010/BT	Constant Current	220V-240Vac	52V	Switch-Dim Bluetooth		1.5-8W/ 195mA /6-41V 1.5-9W/ 230mA /6-41V 1.5-10W/ 250mA /6-41V 2-12W/ 300mA /6-41V 2.5-12.8W/ 350mA /6-36V 2.5-12.8W/ 400mA /6-32V 3-12.5W/ 500mA /6-25V.		Insulated Terminal Cover	189
NEW	HED1025/BT	Constant Current	220V-240Vac	60V	Switch-Dim Bluetooth		2-15W/ 300mA /6-48V 2-17W/ 350mA /6-48V 2-20W/ 400mA /6-48V 3-22W/ 450mA /6-48V 3-24W/ 500mA /6-46V 3-24W/ 550mA /6-44V 4-25W/ 600mA /6-38V 4-25W/ 700mA /6-36V			189
NEW	1 HBE9028/KD 8	Constant Current	220V-240Vac	55V	Bluetooth		13-28W/ 865mA /15-33V	Category C, see pg. 88	Insulated Terminal Cover	189
NEW	HED7030/BT	Constant Current	220V-240Vac	75V	Bluetooth		3.5-20W/ 350mA /10-57V 5-29W/ 500mA /10-57V 5.5-30W/ 550mA /10-55V 7-30W/ 700mA /10-43V 7.5-30W/ 750mA /10-40V 9-23W/ 900mA /10-25V	Category C, see pg. 88	Insulated Terminal Cover	190
NEW	HED1040/BT	Constant Current	220V-240Vac	65V	Switch-Dim Bluetooth		2-18W/ 350mA /6-50V 2-20W/ 400mA /6-50V 2-23W/ 450mA /6-50V 3-25W/ 500mA / 6-50V 3-28W/ 550mA /6-50V 3-30W/ 600mA /6-50V 4-33W/ 650mA /6-50V 4-35W/ 700mA /6-50V 5-40W/ 800mA /6-50V 5-40W/ 850mA /6-47V 5-38W/ 900mA /6-42V			190

Overview: Bluetoooth 5.0 Mesh Enabled LED Driver with App

				Οι	itput	Tunchlo	Human		RI12 Port		
					Dimming Interface						
NEW	HED6045/BT	Constant Current	220V-240Vac	75V	Switch-Dim Bluetooth			3.5-19W/ 350mA /10-54V 5-27W/ 500mA /10-54V 6-32W/ 600mA /10-54V 7-38W/ 700mA /10-54V 8-42W/ 800mA /10-52V 9-45W/ 900mA /10-50V 9.5-45W/950mA /10-47V 10-45W/1000mA /10-45V 10.5-44W/1050mA /10-42V		Insulated Terminal Cover	190
NE	NI HED8025/BT	Constant Current	220V-240Vac	60V	Switch-Dim Bluetooth	\checkmark	\checkmark	2-13W/ 250mA /10-52V 3-16W/ 300mA /10-52V 4-18W/ 350mA /10-52V 5-25W/ 500mA /10-50V 6-25W/ 600mA /10-42V 7-25W/ 700mA /10-35V 8-23W/ 750mA /10-30V		Insulated Terminal Cover	190
NEI	NI HED8025V/BT	Constant Voltage	220V-240Vac	24V	Switch-Dim Bluetooth			25W/ 1050mA /24V		Insulated Terminal Cover	191
NE	NI HED8030/BT	Constant Current	220V-240Vac	65V	Switch-Dim Bluetooth	\checkmark	\checkmark	3-15W/ 300mA /10-50V 3-18W/ 350mA /10-50V 4-20W/ 400mA /10-50V 4-23W/ 450mA /10-50V 5-25W/ 500mA /10-50V 5-28W/ 550mA /10-50V 6-30W/ 600mA /10-46V 7-28W/ 700mA /10-40V			191
NE	NI HED8040/BT 8	Constant Current	220V-240Vac	65V	Switch-Dim Bluetooth	\checkmark	\checkmark	2-18W/ 350mA /6-50V 2-20W/ 400mA /6-50V 2-23W/ 450mA /6-50V 3-25W/ 500mA / 6-50V 3-28W/ 550mA /6-50V 3-30W/ 600mA /6-50V 4-33W/ 650mA /6-50V 4-35W/ 700mA /6-50V 5-40W/ 800mA /6-50V 5-40W/ 850mA /6-47V 5-38W/ 900mA /6-42V			191
NEI	HED8045/BT	Constant Current	220V-240Vac	63V	Switch-Dim Bluetooth	\checkmark	\checkmark	7-24W/ 500mA /15-48V 9-29W/ 600mA /15-48V 10-34W/ 700mA /15-48V 12-38W/ 800mA /15-48V 13-43W/ 900mA /15-48V 15-43W/ 1000mA /15-43V	Category C, see pg. 88	Insulated Terminal Cover	191

6		Ov	erview:	DP	LI-Z	Output	(with Switch-	Jim)		
	S.	Туре	Input	O Uout max.	utput Dimming Interface	DALI-2 DT6/DT8 Control	Max. Output Power/ Current/Voltage Range	RJ12 Port for Sensor Connection	Optional Accessory	Page
NEI	N! HED1009/D2	Constant Current	220V-240Vac	45V	Switch-Dim	DT6	1-6W/ 200mA /6-30V 1.5-7.5W/ 250mA /6-30V 2-9W/ 300mA /6-30V 2-9W/ 350mA /6-25V 2.5-9W/ 400mA /6-22V 3-9W/ 500mA /6-18V 3.5-9W/ 600mA /6-15V		Insulated Terminal Cover	192
	HED6010	Constant Current	220V-240Vac	52V	Switch-Dim	DT6	1.5-8W/ 195mA /6-41V 1.5-9W/ 230mA /6-41V 1.5-10W/ 250mA /6-41V 2-12W/ 300mA /6-41V 2.5-12.8W/ 350mA /6-36V 2.5-12.8W/ 400mA /6-32V 3-12.5W/ 500mA /6-25V		Insulated Terminal Cover	192
NE	N! HED1025/D2	Constant Current	220V-240Vac	60V	Switch-Dim	DT6	3-15W/ 300mA /10-50V 3.5-17W/ 350mA /15-50V 4-20W/ 400mA /10-50V 4.5-22W/ 450mA /10-48V 5-24W/ 500mA /10-48V 5.5-24W/ 550mA /10-44V 6-25W/ 600mA /10-42V 6.5-25W/ 650mA /10-38V 7-25W/ 700mA /10-36V			192
NEI	N! HEC7030/BF	Constant Current	220V-240Vac	75V	Switch-Dim	DT6	3.5-20W/350mA /10-57V 5-29W/ 500mA /10-57V 5.5-30W/ 550mA /10-55V 7-30W/ 700mA /10-43V 7.5-30W/ 750mA /10-40V 9-23W/ 900mA /10-25V	Category A, see pg. 80 Category B, see pg. 85		192
NE	NI HED1040/D2	Constant Current	220V-240Vac	60V	Switch-Dim	DT6	4-33W/700mA /6-48V 4.5-36W/ 750mA /6-48V 5-37W/ 800mA /6-46V 5-39W/ 850mA /6-46V 5.5-40W/ 900mA /6-44V 5.5-40W/ 950mA /6-42V 6-40W/ 1000mA /6-40V 6.5-40W/ 1050mA /6-38V 6.5-40W/ 1150mA /6-35V 7-40W/ 1150mA /6-34V			193
NE	N! HED1060/D2	Constant Current	220V-240Vac	75V		DT6	4-33W/700mA /6-48V 4.5-36W/ 750mA /6-48V 5-37W/ 800mA /6-46V 5.39W/ 850mA /6-46V 5.5-40W/ 900mA /6-46V 5.5-40W/ 950mA /6-42V 6-40W/ 1000mA /6-40V 6.5-40W/ 1050mA /6-38V 6.5-40W/ 1150mA /6-35V 7-40W/ 11200mA /6-34V			193)

6		Ove	erview:	DA	LI-Z	Out	put	(with Switch-L	Dim)		
	5	Туре	Input	Ou Uout max.	utput Dimming Interface	DALI-2 DT6/DT8	Tunable White Control	Max. Output Power/ Current/Voltage Range	RJ12 Port for Sensor Connection	Optional Accessory	Page
NEW	HED6045/D2	Constant Current	220V-240Vac	75V	Switch-Dim	DT6		3.5-19W/ 350mA /10-54V 4.5-24W/ 450mA /10-54V 5-27W/ 500mA /10-54V 5.5-30W/ 550mA /10-54V 6.32W/ 600mA /10-54V 6.5-35W/ 650mA /10-54V 7-38W/ 700mA /10-54V 7.5-39W/ 750mA /10-52V 8-42W/ 800mA /10-52V 8.5-43W/ 850mA /10-50V 9-45W/ 900mA /10-50V 10-45W/ 1000mA /10-45V		Insulated Terminal Cover	193
NEWI	HED8025	Constant Current	220V-240Vac	60V	Switch-Dim	DT8		2-13W/ 250mA /10-52V 3-16W/ 300mA /10-52V 4-18W/ 350mA /10-52V 5-25W/ 500mA /10-50V 6-25W/ 600mA /10-42V 7-25W/ 700mA /10-35V 8-23W/ 750mA /10-30V		Insulated Terminal Cover	193
NEW	HED8025V	Constant Voltage	220V-240Vac	24V	Switch-Dim	DT8	\checkmark	25W/1050mA /24V		Insulated Terminal Cover	194
NEWI	HED8030	Constant Current	220V-240Vac	65V	Switch-Dim	DT8	\checkmark	3-15W/300mA /10-50V 3-18W/ 350mA /10-50V 4-20W/ 400mA /10-50V 4-23W/ 450mA /10-50V 5-25W/ 500mA /10-50V 5-28W/550mA /10-50V 6-30W/ 600mA /10-40V 7-28W/ 700mA /10-40V		Insulated Terminal Cover	194
NEW!	HED8040	Constant Current	220V-240Vac	65V	Switch-Dim	DT8	\checkmark	2-18W/350mA /6-50V 2-20W/ 400mA /6-50V 2-23W/ 450mA /6-50V 3-25W/ 500mA / 6-50V 3-28W/550mA /6-50V 3-30W/ 600mA /6-50V 4-33W/ 650mA /6-50V 4-35W/ 700mA /6-50V 5-40W/ 800mA /6-50V 5-40W/ 850mA /6-47V 5-38W/ 900mA /6-42V			194
NEW!	HED8045	Constant Current	220V-240Vac	63V	Switch-Dim	DT8	\checkmark	7-24W/500mA /15-48V 9-29W/ 600mA /15-48V 10-34W/ 700mA /15-48V 12-38W/ 800mA /15-48V 13-43W/ 900mA /15-48V 15-43W/ 1000mA /15-43V	Category A, see pg. 80 Category B, see pg. 85	Insulated Terminal Cover	194

				Out	put		DI12 Port		
		Туре	Input	Uout max.	Dimming Interface	Max. Output Power/ Current/Voltage range	for Sensor Connection	Optional Accessory	Page
NEW!	HED6045/D2	Constant Current	220V-240Vac	75V	DALI, Switch-Dim, 1-10V	3.5-19W/ 350mA /10-54V 4.5-24W/ 450mA /10-54V 5-27W/ 500mA /10-54V 5.5-30W/ 550mA /10-54V 6-32W/ 600mA /10-54V 6.5-35W/ 650mA /10-54V 7-38W/ 700mA /10-54V 7.5-39W/ 750mA /10-52V 8-42W/ 800mA /10-52V 8.5-43W/ 850mA /10-50V 9-45W/ 900mA /10-45V		Insulated Terminal Cover	193
	HED2020	Constant Current Constant Voltage	220V-240Vac	80V	DALI, Switch-Dim	15W/ 350m A /9~45V 20W/ 500mA /9~43V 20W/ 700mA /9~30V 20W/ 900mA /9~23V Constant voltage: 10W/12V; 20W/24V		Insulated Terminal Cover	195
	HED2040	Constant Current	220V-240Vac	80V	DALI, Switch-Dim, 1-10V	20W/ 350mA /12-58V 23W/ 400mA /12-58V 26W/ 450mA /12-58V 32W/ 500mA /12-58V 32W/ 550mA /12-58V 35W/ 600mA /12-58V 38W/ 650mA /12-58V 40W/ 700mA / 12-58V 40W/ 700mA / 12-56V 45W/ 850mA /12-50V 45W/ 850mA /12-50V 45W/ 900mA /12-41V		Insulated Terminal Cover	195
	HED2050	Constant Current	220V-240Vac	80V	DALI, Switch-Dim, 1-10V	40.5W/ 700mA /12-58V 43.5W/ 750mA /12-58V 46.5W/ 800mA /12-58V 49W/ 850mA /12-58V 50W/ 900mA /12-58V 50W/ 950mA /12-53V 50W/ 1000mA /12-50V 50W/ 1050mA / 12-48V 50W/ 1100mA /12-45V 50W/ 1150mA /12-43V 50W/ 1250mA /12-40V 50W/ 1300mA /12-37V 50W/ 1350mA /12-37V		Insulated Terminal Cover	195

				Dimming		RJ12 Port for Sensor Connection		
HED6020	Constant Current	220V-240Vac	60V	DALI, Switch-Dim, 1-10V	15.5W/ 350mA /10-45V 21.5W/ 500mA /10-43V 21W/ 700mA /10-30V 20.5W/ 900mA /10-23V		Insulated Terminal Cover	195
HED4030-A	Constant Current	220V-240Vac	12V	DALI, Switch-Dim, 1-10V	30W/ 2500mA /12V		Insulated Terminal Cover	196
HED6030-A	Constant Current	220V-240Vac	24V	DALI, Switch-Dim, 1-10V	30W/ 1250mA /24V		Insulated Terminal Cover	196
HED2075-A	Constant Voltage	220V-240Vac	12V	DALI, Switch-Dim, 1-10V	75W/ 6250mA /12V		Insulated Terminal Cover	196
HED3075-A	Constant Voltage	220V-240Vac	24V	DALI, Switch-Dim, 1-10V	75W/ 3125mA /24V		Insulated Terminal Cover	196
HED1025	Constant Current	220V-240Vac	90V	DALI, Switch-Dim	19.5W/ 325mA /12-60V 21W/ 350mA /12-60V 22.5W/ 375mA /12-60V 24W/ 400mA /12-60V 25.5W/ 425mA /12-60V 27W/ 450mA /12-60V 26W/ 475mA /12-55V 26W/ 500mA /12-55V 26W/ 525mA /12-50V 27.5W/ 550mA /12-50V 26W/ 575mA /12-45V 28W/ 600mA /12-45V 28W/ 625mA /12-45V 28W/ 650mA /12-40V 28W/ 700mA /12-40V	Category A, see pg. 80 Category B, see pg. 85		197
HED1045	Constant Current	220V-240Vac	75V	DALI, Switch-Dim, 1-10V	28W/ 500mA /12~56V 40W/ 700mA /12~56V 45W/ 900mA /12~50V 45W/ 1050mA /12~42V 40W/ 1200mA /12~34V 40W/ 1400mA /12~28V	Category A, see pg. 80 Category B, see pg. 85	Insulated Terminal Cover	197

		,			I V		,	
				Output Dimming Interface				
HED1050L	Constant Current	220V-240Vac	200V	DALI, Switch-Dim, 1-10V	34W/225mA /36~150V 38W/ 250mA /36~150V 41W/ 275mA /36~150V 45W/ 300mA /36~150V 49W/325mA /36~150V 50W/ 350mA /36~140V 50W/ 375mA /36~130V 50W/ 400mA /36~125V 50W/ 425mA /36~115V 50W/ 450mA /36~110V 50W/ 450mA /36~100V 50W/ 500mA /36~100V 50W/ 550mA /36~95V 50W/ 550mA /36~85V 50W/ 575mA /36~83V	Category A, see pg. 80 Category B, see pg. 85		197
HED1050H	Constant Current	220V-240Vac	110V	DAU, Switch-Dim, 1-10V	40W/ 500mA /12~80V 44W/ 550mA /12~80V 49W/ 600mA /12~80V 49W/ 650mA /12~75V 49W/700mA /12~75V 50W/ 750mA /12~66V 50W/ 800mA /12~62V 50W/ 800mA /12~59V 49W/ 900mA /12~55V 49W/ 900mA /12~55V 49W/ 950mA /12~53V 50W/ 1050mA /12~47V 50W/ 1100mA /12~45V 50W/ 1150mA /12~43V 50W/ 1200mA /12~42V	Category A, see pg. 80 Category B, see pg. 85		198
IED1080H	Constant Current	220V-240Vac	120V	DALI, Switch-Dim, 1-10V	67W/ 900mA /16-75V 71W/ 950mA /16-75V 75W/ 1000mA /16-75V 78W/ 1050mA /16-74V 79W/ 1100mA /16-72V 80W/ 1150mA /16-70V 80W/ 1200mA /16-64V 80W/ 1250mA /16-64V 80W/ 1350mA /16-57V 80W/ 1400mA /16-57V 80W/ 1450mA /16-51V 80W/ 1550mA /16-51V 80W/ 1600mA /16-50V	Category A, see pg. 80 Category B, see pg. 85		198

2	Туре	Input	Uout max.	Utput Dimming Interface	Max. Output Power/ Current/Voltage range	RJ12 Port for Sensor Connection	Optional Accessory	Page
HE1008-A	Constant Current	220V-240Vac	38V	Switch-Dim, 1-10V	2-8W/ 350mA /6-24V 3-8W/ 500mA /6-16V 3-8W/ 550mA /6-15V	I	nsulated Terminal Cover	198
HE8008-A	Constant Current	220V-240Vac	38V	Switch-Dim, 1-10V	2-8W/ 350mA /6-24V 3-8W/ 500mA /6-16V 3-8W/ 550mA /6-15V			199
HE8030-A	Constant Current	220V-240Vac	80V	Switch-Dim, 1-10V	15W/ 250mA /12-60V 21W/ 350mA /12-60V 24W/ 400mA /12-60V 27W/ 450mA /12-60V 30W/ 500mA /12-60V 30W/ 550mA /12-54V 30W/ 600mA /12-50V 30W/ 700mA /12-43V		nsulated Terminal Cover	199
HE8050-A	Constant Current	220V-240Vac	100V	Switch-Dim, 1-10V	25W/ 350mA /15-72V 36W/ 500mA /15-72V 40W/ 550mA /15-72V 43W/ 600mA /15-72V 47W/ 650mA /15-72V 50W/ 700mA /15-72V 50W/ 800mA /15-63V 50W/ 900mA /15-56V 50W/ 1050mA /15-48V		nsulated Terminal Cover	199
HE4030-A	Constant Voltage	220V-240Vac	12V	Switch-Dim, 1-10V	30W / 2500mA / 12V	I	nsulated Terminal Cover	199
HE6030-A	Constant Voltage	220V-240Vac	24V	Switch-Dim, 1-10V	30W / 1250mA / 24V		nsulated Terminal Cover	200
HE2075-A	Constant Voltage	220V-240Vac	12V	Switch-Dim, 1-10V	75W / 6250mA / 12V		nsulated Terminal Cover	200

6	Overvi	ew:	Hum	an Cen	tric	Lighti	ng ð	& Tunable W	hite Co	ontrol	
	2	Туре	Bluetooth	Input	Uout max.	Output Dimming Interface	HCL /TW	Max. Output Power/ Current/Voltage range	RJ12 Port for Sensor Connection	Optional Accessory	Page
NEW	HED8025/BT	Constant Current	\checkmark	220V-240Vac	60V	Bluetooth Dim	Human Centric Lighting	2-13W/ 250mA /10-52V 3-16W/ 300mA /10-52V 4-18W/ 350mA /10-52V 5-25W/ 500mA /10-50V 6-25W/ 600mA /10-42V 7-25W/ 700mA /10-35V 8-23W/ 750mA /10-30V		Insulated terminal cover	190
NEW	HED8025V/BT	Constant Voltage	\checkmark	220V-240Vac	24V	Bluetooth Dim	Human Centric Lighting	25W/1050mA /24V		Insulated terminal cover	191
NEW	HED8030/BT	Constant Current	\checkmark	220V-240Vac	65V	Bluetooth Dim	Human Centric Lighting	3-15W/300mA /10-50V 3-18W/ 350mA /10-50V 4-20W/ 400mA /10-50V 4-23W/ 450mA /10-50V 5-25W/ 500mA /10-50V 5-28W/550mA /10-50V 6-30W/ 600mA /10-50V 6-30W/ 650mA /10-46V 7-28W/ 700mA /10-40V			191
NEM	HED8040/BT	Constant Current	\checkmark	220V-240Vac	65V	Bluetooth Dim	Human Centric Lighting	2-18W/350mA /6-50V 2-20W/ 400mA /6-50V 2-23W/ 450mA /6-50V 3-25W/ 500mA / 6-50V 3-28W/550mA /6-50V 3-30W/ 600mA /6-50V 4-33W/ 650mA /6-50V 4-35W/ 700mA /6-50V 5-40W/ 800mA /6-50V 5-40W/ 850mA /6-47V 5-38W/ 900mA /6-42V			191
NEW	HED8045/BT	Constant Current		220V-240Vac	63V	Bluetooth Dim	Human Centric Lighting	7-24W/500mA /15-48V 9-29W/ 600mA /15-48V 10-34W/ 700mA /15-48V 12-38W/ 800mA /15-48V 13-43W/ 900mA /15-48V 15-43W/ 1000mA /15-43V	Category C, see pg. 88	Insulated terminal cover	191
NEW	HED8025	Constant Current		220V-240Vac	60V	DALI, Switch-Dim	Tunable White	2-13W/ 250mA /10-52V 3-16W/ 300mA /10-52V 4-18W/ 350mA /10-52V 5-25W/ 500mA /10-50V 6-25W/ 600mA /10-42V 7-25W/ 700mA /10-35V 8-23W/ 750mA /10-30V		Insulated terminal cover	193

S	Overvi	ew:	Hum	an Cen	tric I	lighti	ng ð	& Tunable Wl	hite Co	ontrol	
	2	Туре	Bluetooth		Uout max.	Output Dimming Interface	HCL /TW	Max. Output Power/ Current/Voltage range	RJ12 Port for Sensor Connection	Optional Accessory	Page
NEW	HED8025V	Constant Voltage		220V-240Vac	24V	DALI, Switch-Dim	Tunable White	25W/1050mA /24V		Insulated terminal cover	194
NEW	HED8030	Constant Current		220V-240Vac	65V	DALI, Switch-Dim	Tunable White	3-15W/300mA /10-50V 3-18W/ 350mA /10-50V 4-20W/ 400mA /10-50V 4-23W/ 450mA /10-50V 5-25W/ 500mA /10-50V 5-28W/550mA /10-50V 6-30W/ 600mA /10-50V 6-30W/ 650mA /10-40V		Insulated terminal cover	194
NEW	HED8040	Constant Current		220V-240Vac	65V	DALI, Switch-Dim	Tunable White	2-18W/350mA /6-50V 2-20W/ 400mA /6-50V 2-23W/ 450mA /6-50V 3-25W/ 500mA / 6-50V 3-28W/550mA /6-50V 3-30W/ 600mA /6-50V 4-33W/ 650mA /6-50V 4-38W/750mA /6-50V 5-40W/ 800mA /6-50V 5-40W/ 850mA /6-42V			194
NEW	HED8045	Constant Current		220V-240Vac	63V	DALI, Switch-Dim	Tunable White	7-24W/500mA /15-48V 9-29W/ 600mA /15-48V 10-34W/ 700mA /15-48V 12-38W/ 800mA /15-48V 13-43W/ 900mA /15-48V 15-43W/ 1000mA /15-43V	Category A, see pg. 80 Category B, see pg. 85	Insulated terminal cover	194

Full Product Specifications - - - HED1009/BT & HED6010/BT & HED1025/BT & HBE9028/KD

NEW!

HED6010/BT

CE 25 🖉

Constant Current (CC)

Max power: 12.5W

Input: 220V-240VAC, 50/60Hz

2 Switch-Dim (PUSH) terminals

3-12.5W/ 500mA /6-25V

Dimmable (via Bluetooth & Switch-Dim)

Multiple current selection via DIP-Switches

Mobile/tablet app & PC web platform control

Optional terminal-caps for stand-alone installation

1.5-8W/ 195mA /6-41V, 1.5-9W/ 230mA /6-41V

1.5-10W/ 250mA /6-41V, 2-12W/ 300mA /6-41V 2.5-12.8W/ 350mA /6-36V, 2.5-12.8W/ 400mA /6-32V

Max. Output Power/Current/Voltage range:

Suitable for

Bluetooth 5.0 SIG Mesh (*See full details on pg. 05-11)

Size: L * W * H = 150mm * 52mm * 28mm

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Suitable for





- Max power: 28W
- Dimmable (via Bluetooth & Switch-Dim)
- Multiple current selection via DIP-Switches
- Mobile/tablet app & PC web platform control
- Switch-Dim (PUSH) terminal
- Optional motion sensor pluggable (Sensor-Dim)
- See category C for all HF & PIR sensor head options (*See pg. 88)
- Optional terminal-caps for stand-alone installation
- Max. Output Power/Current/Voltage range: 13-28W/ 865mA /15-33V

189

7-25W/700mA/10-36V

Full Product Specifications - - - HED7030/BT & HED1040/BT & HED6045/BT & HED8025/BT



Full Product Specifications - - - HED8025V/BT & HED8030/BT & HED8040/BT & HED8045/BT



- Max power: 40W
- Dimmable & Tunable white control (via Bluetooth & Switch-Dim)
- Human Centric Lighting / Circadian Rhythm (*See pg. 24)
- Multiple current selection via DIP-Switches
- Mobile/tablet app & PC web platform control
- 2 Switch-Dim (PUSH) terminals
- Max. Output Power/Current/Voltage range:
 2-18W/ 350mA /6-50V, 2-20W/ 400mA /6-50V
 2-23W/ 450mA /6-50V, 3-25W/ 500mA / 6-50V
 3-28W/ 550mA /6-50V, 3-30W/ 600mA /6-50V
 4-33W/ 650mA /6-50V, 4-35W/ 700mA /6-50V
 4-38W/750mA /6-50V, 5-40W/ 800mA /6-50V
 5-40W/ 850mA /6-47V, 5-38W/ 900mA /6-42V

- Dimmable & Tunable white control (via Bluetooth & Switch-Dim)
- Human Centric Lighting / Circadian Rhythm (*See pg. 24)
- Multiple current selection via DIP-Switches
- Mobile/tablet app & PC web platform control
- 2 Switch-Dim (PUSH) terminals

Input: 220V-240VAC, 50/60Hz

Max power: 43W

- Optional motion sensor pluggable (Sensor-Dim)
- See category C for all HF & PIR sensor head options (*See pg. 88)
- Optional terminal-caps for stand-alone installation
- Max. Output Power/Current/Voltage range:
- 7-24W/ 500mA /15-48V, 9-29W/ 600mA /15-48V 10-34W/ 700mA /15-48V, 12-38W/ 800mA /15-48V 13-43W/ 900mA /15-48V, 15-43W/ 1000mA /15-43V



¬ Full Product Specifications - - - HED1040/D2 & HED1060/D2 & HED6045/D2 &HED8025











Suitable for

Suitable for



Full Product Specifications - - - HED4030-A & HED6030-A & HED2075-A & HED3075-A













- Multiple current selection via DIP-Switches
- Switch-Dim (PUSH) terminal
- Optional motion sensor pluggable (Sensor-Dim)

3-8W/ 550mA /6-15V

80W/ 1400mA /16-57V, 80W/ 1450mA /16-55V

80W/ 1500mA /16-53V, 80W/ 1550mA /16-51V

80W/ 1600mA /16-50V, 80W/ 1650mA /16-48V













Driver+Sensor Combo 2-in-1



Integrated Design

10						U			U					
	5	Input	Output	Bluetooth	Detection Technology	Daylight Sensor	Active Lux Switching	Install Height	Dip- Switch	Rotary Switch	Remote Controller	Inrush Current	Max. Output Power/ Current/Voltage Range	Page
	HEC6018	220-240Vac 50/60Hz	: 11.5~18W, Tri-level Control		HF	Photodiode		Low-bay Max. 5m	\checkmark			45A/16µs	11.5-18W/500mA/23-36\	√208
	HEC6028	220-240Vac 50/60Hz	16~28W, Tri-level Control		HF	Photodiode		Low-bay Max. 5m				50A/10µs	16-28W/700mA/23-40V	208
	HEC6418	120-277Vac 50/60Hz	11.5~18W, Tri-level Control		HF	Photodiode		Low-bay Max. 5m				45A/16µs	11.5-18W/500mA/23-36\	√208
	HEC6428	120-277Vac 50/60Hz	16~28W, Tri-level Control		HF	Photodiode		Low-bay Max. 5m				50A/10µs	120V: 16-25W/700mA/23-36V 277V: 16-28W/700mA/23-40V	208
	HEC7028	220-240Vac 50/60Hz	3.5~28W, Tri-level Control		HF	Photodiode		Low-bay Max. 5m	\checkmark	\checkmark	√ HRC-05	50A/10µs	17W/350mA/48V 24W/500mA/48V 25W/550mA/46V 28W/700mA/40V 28W/750mA/37V 28W/900mA/31V	209
	HEC7428	120-277Vac 50/60Hz	3.5~28W, Tri-level Control		HF	Photodiode		Low-bay Max. 5m	\checkmark	\checkmark	√ HRC-05	50A/10µs	17W/350mA/48V 24W/500mA/48V 25W/550mA/46V 28W/700mA/40V 28W/750mA/37V 28W/900mA/26-31V	209
NEW	J. HEC6025/I	220-240Vac 50/60Hz	5~25W, Tri-level Control		HF	Photocell Advance™	\checkmark	Low-bay Max. óm	\checkmark			50A/10µs	5-16W/350mA/15-45V 7-22W/500mA/15-45V 8-25W/550mA/15-45V 10-25W/700mA/15-36V	209
NEW	N HEC9028	220-240Vac 50/60Hz	16~18W, Tri-level Control		HF	Photocell Advance™	\checkmark	Low-bay Max. 5m	\checkmark			44A/53µs	16-27.5W/685mA/24V 11-18W/450mA/40V	210
NEW	J. HBE9028 S	220-240Vac 50/60Hz	2~28W, Bluetooth Dim Tri-level Control Daylight Harves	V	HF	Photocell Advance™	\checkmark	Low-bay Max. óm	\checkmark			15A/70µs	2-14W/300mA/6-47V 2-16.5W/350mA/6-47V 2-19W/400mA/6-47V 3-21W/450mA/6-47V 3-23.5W/500mA/6-47V 3-26W/550mA/6-47V 4-27W/600mA/6-45V 4-27W/650mA/6-42V 4-28W/700mA/6-40V	210

6	Detach	able	Sensc	or He	ad Design	Blu	etooth	Mesh (with A	\pp)
	2	Input	Output	Bluetooth	Sensor Head Options	Dip-Switch	Inrush Current	Max. Output Power/ Current/Voltage Range	Page
	HED1025 + Sensor Head	220-240Vac 50/60Hz	4~28W Switch-Dim	\checkmark	Category B, see pg. 85	\checkmark	40A/98.4µs	19.5W/325mA/12-60V 21W/350mA/12-60V 22.5W/375mA/12-60V 24W/400mA/12-60V 25.5W/425mA/12-60V 27W/450mA/12-60V 26W/475mA/12-55V 27.5W/500mA/12-55V 26W/525mA/12-50V 27.5W/550mA/12-50V 26W/575mA/12-45V 28W/625mA/12-45V 28W/650mA/12-40V 28W/700mA/12-40V	211
	HED1045 + Sensor Head	220-240Vac 50/60Hz	6~40W Switch-Dim	\checkmark	Category B, see pg. 85	\checkmark	54A/44µs	28W/500mA/12~56V 40W/700mA/12~56V 45W/900mA/12~50V 45W/1050mA/12~42V 40W/1200mA/12~34V 40W/1400mA/12~28V	211
NEW	HEC7030/BF + Sensor Head	220-240Vac 50/60Hz	3.5~23W Switch-Dim Bluetooth Dim	\checkmark	Category B, see pg. 85	\checkmark	63A/89.3µs	3.5-20W/350mA/10-57V 5-29W/500mA/10-57V 5.5-30W/550mA/10-55V 7-30W/700mA/10-43V 7.5-30W/750mA/10-40V 9-23W/900mA/10-25V	211
NEW	HED8045 + Sensor Head	220-240Vac 50/60Hz	7~43W Switch-Dim	\checkmark	Category B, see pg. 85	\checkmark	42A/30µs	7-24W/500mA/15-48V 9-29W/600mA/15-48V 10-34W/700mA/15-48V 12-38W/800mA/15-48V 13-43W/900mA/15-48V 15-43W/1000mA/15-43V	211
	HED1050L + Sensor Head	220-240Vac 50/60Hz	8~50W Switch-Dim	\checkmark	Category B, see pg. 85	\checkmark	63A/24µs	34W/225mA/36~150V 38W/250mA/36~150V 41W/275mA/36~150V 45W/300mA/36~150V 49W/325mA/36~150V 50W/350mA/36~140V 50W/375mA/36~140V 50W/400mA/36~125V 50W/425mA/36~115V 50W/425mA/36~105V 50W/450mA/36~100V 50W/525mA/36~95V 50W/550mA/36~90V 50W/575mA/36~84V	211

Detachable Sensor Head Design - - Bluetooth Mesh (with App) 40W/500mA/12~80V 44W/550mA/12~80V 49W/600mA/12~80V 49W/650mA/12~75V 49W/700mA/12~70V HED1050H + 50W/750mA/12~66V Sensor Head 50W/800mA/12~62V 220-240Vac 6~50W Category B, see pg. 85 60A/24µs 50W/850mA/12~59V 211 8 50/60Hz Switch-Dim 49W/900mA/12~55V 1...... 49W/950mA/12~53V 50W/1000mA/12~50V 50W/1050mA/12~47V 50W/1100mA/12~45V 50W/1150mA/12~43V 50W/1200mA/12~42V 67W/900mA/16-75V 71W/ 950mA /16-75V 75W/1000mA/16-75V 78W/1050mA/16-74V 79W/1100mA/16-72V 80W/ 1150mA /16-70V HED1080H + 80W/ 1200mA /16-66V Sensor Head 220-240Vac 16~80W 80W/ 1250mA /16-64V Category B, see pg. 85 66A/42µs 211 8 80W/1300mA/16-61V Switch-Dim 50/60Hz 80W/1350mA/16-59V 80W/1400mA/16-57V 80W/1450mA/16-55V 80W/ 1500mA /16-53V 80W/1550mA/16-51V 80W/1600mA/16-50V 80W/ 1650mA /16-48V NEW! HBE9028/KD + Sensor Head 220-240Vac 13~29W 8 Category C, see pg. 88 12.3A/60µs 13-29W/865mA/15-33V 213 50/60Hz Bluetooth Dim NEW! 3.5-18W/350mA/10-52V HED7030/BT + 5-26W/500mA/10-52V Sensor Head 3.5~30W 5-26W/500mA/10-52V 220-240Vac 8 Switch-Dim $\sqrt{}$ Category C, see pg. 88 8.9A/22µs 5.5-29W/550mA/10-52V 213 50/60Hz Bluetooth Dim 7-30W/700mA/10-43V 7.5-30W/750mA/10-40V 9-23W/900mA/10-25V NEW! 7-24W/500mA/15-48V HED8045/BT + 9-29W/600mA/15-48V 7~43W 220-240Vac Sensor Head 10-34W/700mA/15-48V Switch-Dim Category C, see pg. 88 44.2A/29.2µs 213 $\sqrt{}$ 8 50/60Hz 12-38W/800mA/15-48V Bluetooth Dim 13-43W/900mA/15-48V 15-43W/1000mA/15-43V

Detachable Sensor Dead Design - - Non-Bluetooth

d		aucine				Jesig					
S					Daylight Sensor		Dip- Switch				
	HEC7030	220-240Vac 50/60Hz	3.5~30W Switch-Dim	Calegory E, see pg. 95	Photodiode	\checkmark	\checkmark	√ HRC-05	67A/6.6µs	21W/350mA/60V 30W/500mA/60V 30W/550mA/55V 30W/700mA/43V 30W/750mA/40V 23W/900mA/25V	218
	HEC7430	120-277Vac 50/60Hz	3.5~30W Switch-Dim	Category E, see pg. 95	Photodiode	\checkmark	\checkmark	√ HRC-05	67A/6.6µs	120V: 5-25W/500mA/10-50V 5.5-25W/550mA/10-45V 7-25W/700mA/10-36V 7-25W/750mA/10-33V 277V: 3.5-17.5W/350mA/10-33V 5.5-26W/550mA/10-43V 7-30W/700mA/10-43V 7-30W/750mA/10-40V 9-23W/900mA/10-25V	218
	HEC9025	220-240Vac 50/60Hz	3.5~25.2W Switch-Dim	SAM4	Photodiode	\checkmark	\checkmark		48A/40µs	15.7W/350mA/43V 21W/500mA/42V 22W/550mA/40V 25.2W/700mA/36V 25.5W/750mA/34V 25.2W/900mA/28V	217
	HEC9425	120-277Vac 50/60Hz	3.5~25.2W Switch-Dim	SAM4	Photodiode	\checkmark	\checkmark		48A/40µs	15.7W/350mA/43V 21W/500mA/42V 22W/550mA/40V 25.2W/700mA/36V 25.5W/750mA/34V 25.2W/900mA/28V	217
	HEC9025/I	220-240Vac 50/60Hz	3.5~25.2W Switch-Dim	sam5/i	Photocell advance™	\checkmark	\checkmark	√ HRC-11	48A/40µs	15.7W/350mA/43V 21W/500mA/42V 22W/550mA/40V 25.2W/700mA/36V 25.5W/750mA/34V 25.2W/900mA/28V	217
	HED1025 + Sensor Head	220-240Vac 50/60Hz	4~28W Switch-Dim	Category A, see pg. 80	Photocell advance™ or Photodiode or Photocell	√ (or Pro-active Lux Switching)	\checkmark	√ HRC-11 or HRC-01 or HRC-04 or HRC-05	40A/98.4µs	19.5W/325mA/12-60V 21W/350mA/12-60V 22.5W/375mA/12-60V 24W/400mA/12-60V 25.5W/425mA/12-60V 27W/450mA/12-60V 26W/475mA/12-55V 26W/525mA/12-55V 26W/525mA/12-50V 26W/575mA/12-50V 26W/575mA/12-45V 28W/625mA/12-45V 28W/650mA/12-43V 27W/675mA/12-40V 28W/700mA/12-40V	211

ົດ	Detachable Sensor Dead Design Non-Bluetooth										
					Daylight Sensor		Dip- Switch				Page
	HED1045 + Sensor Head	220-240Vac 50/60Hz	6~40W Switch-Dim	Category A, see pg. 80	Photocell advance™ or Photodiode or Photocell	√ (or Pro-active Lux Switching)	\checkmark	√ HRC-11 or HRC-01 or HRC-04 or HRC-05	54A/44µs	28W/500mA/12~56V 40W/700mA/12~56V 45W/900mA/12~50V 45W/1050mA/12~42V 40W/1200mA/12~34V 40W/1400mA/12~28V	211
NEV	HEC7030/BF + Sensor Head	220-240Vac 50/60Hz	3.5~23W Switch-Dim Bluetooth Dim	Category A, see pg. 80	Photocell advance™ or Photodiode or Photocell	√ (or Pro-active Lux Switching)	\checkmark	√ HRC-111 or HRC-01 or HRC-04 or HRC-05	63A/89.3µs	3.5-20W/350mA/10-57V 5-29W/500mA/10-57V 5.5-30W/550mA/10-55V 7-30W/700mA/10-43V 7.5-30W/750mA/10-40V 9-23W/900mA/10-25V	211
NEV	HED8045 + Sensor Head	220-240Vac 50/60Hz	7~43W Switch-Dim	Category A, see pg. 80	Photocell advance™ or Photodiode or Photocell	√ (or Pro-active Lux Switching)	\checkmark	√ HRC-111 or HRC-01 or HRC-04 or HRC-05	42A/30µs	7-24W/500mA/15-48V 9-29W/600mA/15-48V 10-34W/700mA/15-48V 12-38W/800mA/15-48V 13-43W/900mA/15-48V 15-43W/1000mA/15-43V	211
										34W/225mA/36~150V	


Detachable Sensor Dead Design - - Non-Bluetooth

					Joong					
Ű				Daylight Sensor		Dip- Switch				
HED1050H + Sensor Head	220-240Vac 50/60Hz	6~50W Switch-Dim	Category A, see pg. 80	Photocell advance™ or Photodiode or Photocell	√ (or Pro-active Lux Switching)	\checkmark	√ HRC-11 or HRC-01 or HRC-04 or HRC-05	60A/24µs	40W/500mA/12~80V 44W/550mA/12~80V 49W/600mA/12~80V 49W/650mA/12~75V 49W/700mA/12~70V 50W/750mA/12~60V 50W/800mA/12~62V 50W/800mA/12~55V 49W/900mA/12~55V 49W/900mA/12~53V 50W/1000mA/12~47V 50W/100mA/12~43V 50W/1100mA/12~43V	211
HED1080H + Sensor Head	220-240Vac 50/60Hz	15~80W Switch-Dim	Category A, see pg. 80	Photocell advance™ or Photodiode or Photocell	√ (or Pro-active Lux Switching)	\checkmark	√ HRC-11 or HRC-01 or HRC-04 or HRC-05	66A/42µs	67W/ 900mA /16-75V 71W/ 950mA /16-75V 75W/ 1000mA /16-75V 78W/ 1050mA /16-75V 79W/ 1100mA /16-72V 80W/ 1150mA /16-70V 80W/ 1200mA /16-60V 80W/ 1250mA /16-61V 80W/ 1350mA /16-57V 80W/ 1450mA /16-55V 80W/ 1550mA /16-51V 80W/ 1650mA /16-50V 80W/ 1650mA /16-80V	211













- Input: 120-277VAC, 50/60Hz
- Microwave detection (HF 5.8GHz ± 75MHz)
- Cut-out size: L x D = 36mm * 29.5mm
- Tri-level dimming (*See pg. 19)
- Daylight sensor: Photodiode
- Active Lux Switching technology (*See pg. 15)
- Max installation height: 5m
- Max detection range: Ø = 8m (diameter)

- Multiple current selection via DIP-Switches
- Sensor settings via handset HRC-05 & Rotary switch
- Max power: 28W
- Constant Current (CC)
- Max. Output Power/Current/Voltage range: 17W/350mA/48V, 24W/500mA/48V
 25W/550mA/46V, 28W/700mA/40V
 28W/750mA/37V, 28W/900mA/26-31V



4-27W/600mA/6-45V, 4-27W/650mA/6-42V

4-28W/700mA/6-40V



Bluetooth 5.0 Mesh Range (with App)

--- Bluetooth module in sensor head unit, suitable for metal luminaires (Hex-Drive Series)



*What is Hex-Drive?

Hex-Drive is the flagship product range of Hytronik LED drivers, designed to integrate various functions for maximizing luminaire design flexibility. This driver series comes with an RJ12 connector which is ready for attaching a wide range of Bluetooth sensor "heads", ranging from microwave (HF) to PIR, from low-bay to high-bay...

When motion sensor unplugged, the Hex-drive alone is a standard DALI compliant driver, possessing 1-10V and Switch-Dim (PUSH) dimming capability as well. All Hex-drive models have multiple current selection feature via DIP-Switch settings.















See pg. 86

More sensor head options

Full Product Specifications - - - Hex-Drive Series + Bluetooth Sensor Head







HIR62 w	ith HA05
NEW! Dall Di	Commissioning Tools
*	See pg 87

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Bluetooth 5.0 Mesh Range (with App) --- Bluetooth module in LED driver, suitable for plastic luminaires





Full Product Specifications - - - Hex-Drive Series + Non-Bluetooth Sensor Head



*What is Hex-Drive?

Hex-Drive is the flagship product range of Hytronik LED drivers, designed to integrate various functions for maximizing luminaire design flexibility. This driver series comes with an RJ12 connector which is ready for attaching a wide range of Bluetooth sensor "heads", ranging from microwave (HF) to PIR, from low-bay to high-bay...

When motion sensor unplugged, the Hex-drive alone is a standard DALI compliant driver, possessing 1-10V and Switch-Dim (PUSH) dimming capability as well. All Hex-drive models have multiple current selection feature via DIP-Switch settings.





More sensor head options \square

Full Product Specifications - - - Hex-Drive Series + Non-Bluetooth Sensor Head





- Microwave detection (HF 5.8GHz ± 75MHz)
- Size: L * W * H = 119.5mm * 53mm * 26mm
- Tri-level dimming (*See pg. 19)
- Daylight sensor: Photocell Advance[™] (*See pg. 14-17)
- Pro-active Lux Switching technology (*See pg. 16)
- Max installation height: 6m
- Max detection range: Ø = 12m (diameter)

- Max power: 25.5W
- Constant Current (CC)
- Multiple current selection via DIP-Switches
- Max. Output Power/Current/Voltage range: 15.7W/350mA/43V, 21W/500mA/42V 22W/550mA/40V, 25.2W/700mA/36V 25.5W/750mA/34V, 25.2W/900mA/28V

Full Product Specifications - - - Non-Bluetooth Driver + Sensor Head













(Total 5 sensor head options, applicable to HEC7030 & HEC7430)



Emergency LED Drivers & Inverters



Overview: Bluetooth 5.0 Mesh Range (with App)

	S	Input Voltage	Input Current	U-out Max.	Output Wattage / LED Current / Voltage	Max. Emergency Output Power	Battery Pack	RJ12 Port for Sensor Connection	Sensor Head Options	Test Method Self-test via Bluetooth	Optional Accessory	Page
NEV	HBEMOI	220-240Vac	162-150mA	60V	8-17.5W / 350mA / 24-50V 12-25W / 500mA / 24-50V 16-25W / 700mA / 24-36V	2W/3W	BPC83 BPC84	\checkmark	Category C, see pg. 88	\checkmark	LED indicator, Test switch	223
NEV	HBEMO2	220-240Vac	Max. 25mA	60V	2W / 85-40mA / 24-55V 3W / 125-60mA / 24-55V 4W / 160-80mA / 24-55V	2W/3W/4W	BPC83 BPC84	\checkmark	Category C, see pg. 88	\checkmark	LED indicator, Test switch	223
NEV	√! HBEMO3 ₿	220-240Vac	162-150mA	60V	8-17.5W / 350mA / 24-50V 12-25W / 500mA / 24-50V 16-35W / 700mA / 24-50V 21.6-40W / 900mA / 24-45V	2W/3W /4W/5W	BPC83 BPC84	\checkmark	Category C, see pg. 88	\checkmark	LED indicator, Test switch	223
NEV	HBEMO4	220-240Vac	Max. 25mA	60V	2W / 85-40mA / 24-55V 3W / 125-60mA / 24-55V 4W / 160-80mA / 24-55V 5W / 200-100mA / 24-55V	2W/3W /4W/5W	BPC83 BPC84	\checkmark	Category C, see pg. 88	\checkmark	LED indicator, Test switch	223
NEV	HBEMO5	220-240Vac	Max. 25mA	60V	6W / 250-100mA / 24-55V 8W / 330-145mA / 24-55V 10W / 415-180mA / 24-55V 12W / 500-220mA / 24-55V	6W/8W /10W/12W	BPC83 BPC84	\checkmark	Category C, see pg. 88		LED indicator, Test switch	223



• 220-240Vac

- DALI-to-Bluetooth converter/translator module;
- Point-to-point control
- Provides power supply to the 3rd party standard DALI/DALI-2 emergency driver;
- Convert/Translate a standard DALI/DALI-2 emergency driver output to Bluetooth output,

Overview: Non-Bluetooth

6					Overview:	Non-E	sluei	ooth				
	S _	Input Voltage	Input Current	U-out Max.	Output Wattage / LED Current / Voltage	Emergency Output Power	Battery Pack	RJ12 Port for Sensor Connection	Sensor Head Options	Test Method Self-test via Bluetooth	Optional Accessory	Page
	HEM02	220-240Vac	19mA - 21mA	68V	40mA (60V); 320mA (8V)	3W	BPC01 BPC02 BPC10 BPC11			Manual test	LED indicator, Test switch, Insulated terminal cover	227
	HEM07	220-240Vac	16mA - 18mA	68V	40mA (60V); 300mA (9V)	3W	BPC01 BPC02 BPC10 BPC11			Manual test	LED indicator, Test switch	227
	HEM06-T	220-240Vac	13mA - 16mA	75V	3W / 260mA-40mA / 12-70V 6W / 350mA-80mA / 12-70V	3W 6W	BPC05 BPC14 BPC20			Self-test	LED indicator, Test switch, Insulated Terminal Cover	227
	HEM07-T	220-240Vac	19mA - 15mA	65V	40mA (55V) 230mA (12V)	3W	BPC01 BPC02 BPC10 BPC11			Self-test	LED indicator, Test switch	228
	HEM09	220-240Vac	200mA - 150mA	62V	18W/ 350mA /10-52V 26W/ 500mA /10-52V 28W/ 550mA /10-52V 30W/ 700mA /10-43V 30W/ 750mA /10-40V 23W/ 900mA /10-25V	3W 4W 6W	BPC30 BPC31	\checkmark	SAM7, SAM7/FM SAM7/AA	Self-test	LED indicator, Test switch, Insulated Terminal Cover	226
	немоэн	220-240Vac	220mA - 160mA	33V	30W/900mA/10~33V 30W/1050mA/10~29V 25W/1200mA/10~21V 20W/1400mA/10~14V	3W 4W 6W	BPC30 BPC31	\checkmark	SAM7, SAM7/FM SAM7/AA	Self-test	LED indicator, Test switch, Insulated Terminal Cover	226

Overview: Batteries

G		Overvie	w: datteries			
	Ű	Battery Type & Specification	Size (mm)	Duration	Accessories	Page
	BPC83	LiFePO4, 6.4V, 3.4Ah	110x55x27	>3h @3W >3h @2W	Battery bracket, LED indicator, Test switch	228
	BPC84	LiFePO4, 6.4V, 3.4Ah	170x30x27	>3h @3W >3h @2W	Battery bracket, LED indicator, Test switch	228
	BPC01	3 cells, C type, NiMH battery, 3.6V, 4.0AH	235x22x22	>3h @3W	Battery bracket, green LED indicator, Test switch (optional)	228
	BPC02	3 cells, C type, NiMH battery, 3.6V, 4.0AH	77x50x28	>3h @3W	Battery bracket, green LED indicator, test switch (optional)	228
	BPC05	6 cells, SC type, NiMH battery, 7.2V, 2.5AH	168x50x28	>3h @3W	Battery bracket, Green LED indicator, Buzzer, Test switch	229
	BPC10	3 cells, D type, D4000, Nicd battery, 3.6V, 4.0AH	215x37x37.5	>3h @3W	Battery bracket, green LED indicator, Test switch (optional)	228
	BPC11	3 cells, D type, D4000, Nicd battery, 3.6V, 4.0AH	100x65x36	>3h @3W	Battery bracket, green LED indicator, Test switch (optional)	228
	BPC14	6 cells, SC type, SC1800, Nicd battery, 7.2V, 1.8AH	165x46x27	>3h @3W	Battery bracket, Green LED indicator, Buzzer, Test switch	229
	BPC20	6 cells, D type, D4000, Nicd battery, 7.2V, 4.0Ah	230x72.5x39.5	>3h @6W	Battery bracket, Green LED indicator, Buzzer, Test switch	229
	BPC30	6 cells, SC type NiCd battery, 7.2V, 1.8Ah	175x50x30	>3h @3W >1.5h @4W >1.5h @6W	Battery bracket, Green LED indicator, Buzzer, Test switch	229
	BPC31	6 cells, SC type NiMH battery, 7.2V, 1.8Ah	190x33x30	>3h @3W >1.5h @4W >1.5h @6W	Battery bracket, Green LED indicator, Buzzer, Test switch	229



HBEMO2, HBEMO3, HBEMO4 & HBEMO5)

Full Product Specifications - - - HBEM01 & HBEM02 & HBEM03 & HBEM04 & HBEM05 + Sensor head



Full Product Specifications - - - HBEM8200/F & HBIREM29 series



Technical Data & Specifications

- Input: 220-240VAC 50/60Hz
- Output (Max Loading): 80mA DALI power supply
- Warming-up period: 20s
- Passive infrared (PIR) detection
- Ta: -20°C ~ +50°C
- Features & Functions

Bluetooth[®] 5.0 SIG Mesh (*See full details on pg. 05-11)

- DALI-to-Bluetooth converter/translator module
- Convert/Translate a standard DALI/DALI-2 emergency driver output to Bluetooth output, so that user can view, edit & manage the emergency system through high-end Koolmesh platform
- User can then enjoy all the powerful & convenient features in Koolmesh platform, including automatic email notification upon detecting fault, automatic monthly/yearly (functional/duration test) emergency report generation etc...
- Point-to-point control: 1 pc HBIREM29 module for 1 pc 3rd party DALI/DALI-2 emergency driver

- Tri-level dimming & Daylight harvest (*See pg. 19-21)
- Daylight sensor: Photocell, except HBIREM29/W: Photodiode (PD)
- Active Lux Switching technology (*See pg. 15)
- Presence mode / Absence mode (Auto / Semi-auto) (*See pg. 26)
- HBIREM29 & the 3rd party standard DALI/DALI-2 emergency driver does not connect to central DALI PSU. HBEM8200/F provides power supply to the 3rd party standard DALI/DALI-2 emergency driver
- With Bluetooth gateway HBGW01, user can remotely control the emergency system via Koolmesh mobile/tablet app & web app platform
- Sensor settings via mobile/tablet app & PC web platform
- 2 Switch-Dim (PUSH) terminals
- Optional IP20/IP65 ceiling mount box accessory HA03
- Optional blind insert / blanking plate accessory (Not applicable on HBIR29/W, HBIR29/RH)
- Tool-free installation: removable terminal blocks and clips

Full Product Specifications - - - HEM09 & HEM09H + Sensor head



28VV/ 550mA / 10-52V, 30VV/ 700mA / 10-43V 30VV/ 750mA / 10-40V, 23VV/ 900mA / 10-25V

> (Total 3 sensor head options, applicable to HEMO9 & HEMO9H)



• Optional terminal-caps for stand-alone installation







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Full Product Specifications - - - HEM07-T & Batteries



- Size: L * W * H = 180mm * 40.5mm * 22mm
- Input: 220V-240VAC, 50/60Hz
- Max. emergency output power: 3W
- Dual wattage and duration selection: 3W @ 3hrs; 3W @ 1h
- Automatic output current adjustment
- With self-testing function, maintenance free
- Wide range of LEDs in series (12~55V)
- Three protection mode with auto-retart
- Deep discharge protection
- Works with NiMH battery / Nicd battery
- Optional LED indicator & test switch accessory

Batteries

BPC83	BPC8
Voltage: 6.4V	Voltag
Capacity: 3.4Ah	Capac
Size: 110 * 55 * 27 (mm)	Size:
Duration: > 3h @ 3W	Duratio
Recharge time: 16h	Rechai
Accessories:	Access
Battery bracket, LED indicator, Test switch	Battery

BPC84		La bilan chat	
Voltage: 6.4V			<u>N</u>
Capacity: 3.4Ał	n		
Size: 170 * 30	* 27 (m	ım)	
Duration: > 3h @	2 3W		
Recharge time: 1	16h		
Accessories:			
Battery bracket,	LED indic	ator, Test	switch

BPC01

BPC11

-
Voltage: 3.6V
Capacity: 4.0Ah
Size: 235 * 22 * 22 (mm)
Duration: > 3h @ 3W
Recharge time: 16h
Accessories:
Battery bracket, LED indicator, Test switch



Voltage: 3.6V Capacity: 4.0Ah Size: 100 * 65 * 36 (mm) Duration: > 3h @ 3W Recharge time: 16h Accessories: Battery bracket, LED indicator, Test switch

BPC02

Voltage: 3.6V						
Capacity: 4.0Ah						
Size: 77 * 50 * 28 (mm)						
Duration: > 3h @ 3W						
Recharge time: 16h						
Accessories:						
Battery bracket, LED indicator, Test switch						

BPC10

Voltage: 3.6V Capacity: 4.0Ah Size: 215 * 37 * 37.5 (mm) Duration: > 3h @ 3W Recharge time: 16h Accessories: Battery bracket, LED indicator, Test switch

Options for HEM06-T:

BPC05

Voltage: 7.2V Capacity: 2.5Ah Size: 168 * 50 * 28 (mm) Duration: > 3h @ 3W Recharge time: 16h Accessories: Battery bracket, LED indicator, Test switch

BPC14

Voltage: 7.2V Capacity: 1.8Ah Size: 165 * 46 * 27 (mm) Duration: > 3h @ 3W Recharge time: 16h Accessories: Battery bracket, LED indicator, Test switch

BPC20

Voltage: 7.2V Capacity: 4.0Ah Size: 230 * 72.5 * 39.5 (mm) Duration: > 3h @ 6VV Recharge time: 16h Accessories: Battery bracket, LED indicator, Test switch

Options for HEM09, HEM09/H

BPC30

Voltage: 7.2V Capacity: 1.8Ah Size: 175 * 50 * 30 (mm) Duration: > 3h @ 3W; > 1.5h @ 4W; > 1.5h @ 6W Recharge time: 16h Accessories: Battery bracket, LED indicator, Test switch

BPC31



Voltage: 7.2V Capacity: 1.8Ah Size: 190 * 33 * 30 (mm) Duration: > 3h @ 3W; > 1.5h @ 4W; > 1.5h @ 6W Recharge time: 16h Accessories: Battery bracket, LED indicator, Test switch

Modular Wiring System

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HIT PROPAGATION

83.

What Is Hytronik's New Modular Wiring System ?

Hytronik is pleased to introduce to you our new Modular Wiring System for lighting control applications. The Modular wiring system consists of Quick Connect Boxes (QCB series), cables and plugs, ceiling rose components, and a wide range of sensor/controller selections. Typical applications include warehouse, commercial lighting, retail, healthcare, education, leisure, and office areas. The design concept is to simplify wiring processes on project sites, making it extremely simple and intuitive for installers and project managers by easy plug' n' play connections, which significantly saves the labor cost, minimizes installation time, improves safety level during operations, and also simplifies future upgrade & maintenance.

Modular Wiring System Overview



Benefits & Privileges

For Contractor / Partner

- Free project consultation/advice
- Minimize spending/budget on installation and commissioning
- Save project time significantly
- Comply with safety standards
- One stop solution for consultation/control/purchasing
- Multiple functions design reduces model inventories



For Electrician / Installer

- Safe on-load connection / disconnection
- Safe electromechanical connection
- Pre-set configuration profile keeps commissioning to a minimum
- Significantly save time by uploading preset configuration profiles to devices directly
- Complete pluggable solution simplifies the installation
- Downloadable configuration settings for keeping records
- One-key device replacement featured



For Lighting Consultant / Designer

- Free product training
- Optimal product recommendation case by case
- Floorplan feature to simplify designing process
- Bluetooth mesh eliminates the need for complex hard wirings
- Wide product/control range to cover all kinds of applications
- Powerful web platform for easy configuration profile preset





For Project Owner / Maintenance

- Maximum energy saving with visualized statistics
- Comprehensive permission management
- Trouble-free!
- Future-proof! Batch OTA upgrade through mesh/gateway easily
- Monitor building's operational status remotely
- Emergency report auto-generation with data analysis and diagnosis
- Automatic fault notification via email
- "Tamperproof" screws to prevent unwanted attempts to take the unit apart
- Simplified maintenance

For Environment

- Recyclable packages & components
- Low smoke emission & halogen free materials
- Maximized energy saving
- Reduced material waste





Typical Applications Example





One-channel control with 1pc sensor

Two-channel control with 1pc sensor window row switching/dimming







One-channel controlled by ≥ 2pcs sensors synchronously simple corridor solutions!



Two-channel controlled by 2pcs sensors seperately







Dual-circuit application with non-essential & essential supplies



6		Ov	ervie	ew: Qi	Jic	k / S	uper	Conne	ection Bo>	kes	
	5	Bluetooth	Connector Type	Number of Outlets (Sockets	Poles	Switching/ Dimmable	Support Emergency	Power Supply Input	Push (Retractive) Switch & Sensor Connection	Support Dual (or Multi-) Channel	Page
	QCB01/BLE-S	\checkmark	GST type	8 luminaires	4-pole	Switching	\checkmark	Single Supply	Mains Powered		238
	QCB01		GST type	8 luminaires + 1 sensor	4-pole	Switching		Single Supply	Mains Powered	√ (Support Dual- Channels)	241
	QCB01/ECO		GST type	12 luminaires	4-pole	Switching	\checkmark	Single Supply	Mains Powered		242
	QCB02/BLE-V	\checkmark	Wago	8 luminaires	5-pole	Dimmable (0/1-10V)		Single Supply	Mains Powered		248
	QCB02/BLE-D2	\checkmark	Wago	8 luminaires	5-pole	Dimmable (DALI-2)		Single Supply	Mains Powered		248
NEV	QCB02/BLE-DCA	√ (Casambi)	Wago	8 luminaires	5-pole	Dimmable (DALI-2)		Single Supply	Mains Powered		248
NEV	الم QCB02/BLE-DTY مراجع	√ (Тиуа)	Wago	8 luminaires	5-pole	Dimmable (DALI-2)		Single Supply	Mains Powered		248
	QCB02		Wago	8 luminaires + 1 sensor	5-pole	Dimmable (0/1-10V & DALI-2)		Single Supply	Mains Powered	√ (Support Dual- Channels)	252
	QCB03/BLE-V	\checkmark	GST type	8 luminaires	6-pole	Dimmable (0/1-10V)	\checkmark	Single Supply	Mains Powered		254
	QCB03/BLE-D2	\checkmark	GST type	8 luminaires	6-pole	Dimmable (DALI-2)	\checkmark	Single Supply	Mains Powered		254

Overview: Quick / Super Connection Boxes

6		Overview: Quick / Super Connection Boxes									
	<u>೮</u>			Number of Outlets (Sockets)		Switching/ Dimmable			Push (Retractive) Switch & Sensor Connection	Support Dual (or Multi-) Channel	
NEV	GCB03/BLE-DCA	√ (Casambi)	GST type	8 luminaires	6-pole	Dimmable (DALI-2)		Single Supply	Mains Powered		254
NEV	QCB03/BLE-DTY	√ (Tuya)	GST type	8 luminaires	6-pole	Dimmable (DALI-2)	\checkmark	Single Supply	Mains Powered		254
	QCB03		GST type	8 luminaires + 1 sensor	6-pole	Dimmable (0/1-10V & DALI-2)		Single Supply	Mains Powered	√ (Support Dual- Channels)	258
NE	QCB03/ECO		GST type	12 luminaires + 2 sensors	6-pole	Dimmable (0/1-10V & DALI-2)	\checkmark	Single Supply		√ (Support Dual- Channels)	260
NE	SCB01/BLE	\checkmark	GST type	14 luminaires + 4 SELV sensor RJ45 ports	6-pole	Dimmable (DALI-2 & Switching)	\checkmark	Single Supply	Low-volt (SELV)	√ (Support up to 10 Channels)	262
NE	SCB02/BLE	\checkmark	GST type	14 luminaires + 4 SELV sensor RJ45 ports	6-pole	Dimmable (DALI-2 & Switching)	\checkmark	Dual Supply (Essential + Non-essential)	Low-volt (SELV)	√ (Support up to 11 Channels)	265
NE	SCB03		GST type	12 luminaires + 2 sensors	6-pole	Dimmable (0/1-10V & DALI-2)		Dual Supply (Essential + Non-essential)	Mains Powered	√ (Support Dual- Channels)	268

Connection Boxes

QCB01/BLE-S



Key Features

- Non-dimmable control applications
- Intelligent control with Bluetooth 5.0 SIG mesh module built in
- 2 types of built-in Bluetooth 5.0 control module to select from
- Detailed Bluetooth system features can be viewed on page 05-11
- Luminaire outlet: GST type 4-pole terminal base (L', N, E, Em)
- Black housing and white housing available to choose from
- Tamper-proof structure design
- Expandable: easy extension to another QCB01/BLE-S wirelessly
- Rating of system: Default rating is 400VA capacitive & 800W resistive
- Max 10A can be supplied as a special version upon request
- Flame-retardant material for safety protection



* White color housing by default. Black color housing can be supplied upon request; Max. 10A can be supplied as a special version upon request

Your Benefits

- Five types of installation methods meets different project needs
- Reduce labour hours and labour cost significantly
- Simple and intuitive wiring connections
- Improved safety level during wiring operations
- Clear and clean wiring makes it easy for future maintenance
- Can be supplied with pre-wired cables

Ordering data

Model name	Description
QCB01/BLE-S	GST type 4-pole terminal base quick connection box for non-dimmable control applications. With 8 luminaire outlets for one-channel control and Bluetooth control HBTD8200S/F built-in. Default rating 400VA@ capacitive & 800VV@ resistive

Input & Output Terminal Function





QCB01/BLE-S

In the middle of the QCB01/BLE there is a pre-installed Bluetooth 5.0 SIG mesh controller module. The Bluetooth controller module controls all the 8 luminaire outlets as one channel (1 x 8). Default rating for this controller module is 400VA capacitive & 800W resistive. If higher loading capability is required, we can supply a special version with max 10A capability upon request.

What's so Helpful about QCB01/BLE-S Bluetooth

"Intelligent" Control ?

1. User enjoys the full set of powerful Bluetooth features (see page 05-11 for details).



2. When used with Hytronik's Bluetooth on/off motion sensor, the Bluetooth sensor can control all the luminaires wirelessly without needing to be hard-wired to the QCB01/BLE-S.

Hytronik's Bluetooth sensor can be plugged to a nearest ceiling rose, without needing to connect a long cable to the QCB01/BLES. This Bluetooth sensor will be able to wirelessly control all the luminaires that are connected to the QCB01/BLES. This is extremely useful by saving long cable wirings when there are multiple Bluetooth sensors controlling a same group of luminaires.



3. When used with an ordinary non-Bluetooth on/off motion sensor (can be Hytronik's sensor or can be from any third-party), the built-in Bluetooth 5.0 controller "upgrades" this ordinary on/off sensor to a Bluetooth smart control sensor.

With a built-in Bluetooth 5.0 controller in QCB01/BLE-S, an ordinary motion sensor can be "upgraded" to Bluetooth smart control using an App feature called "Sensor-link ", which is easily achieved by wiring the L' of the ordinary sensor to the PUSH terminal of the QCB01/BLE-S. With this feature, the motion sensor works normally while the advanced Bluetooth control features such as scheduling, timer & recall scenes will all perform well at the same time.



Besides, there will be no requirement for the sensor's loading capability. Sensor just picks up motion and sends trigger signal, the loading capability is purely determined by the QCB01/BLES, which is 400VA capacitive & 800W resistive by default, and a special version of max 10A can be supplied upon request if higher loading capability is required. In other words, the sensor's loading capability can be as small as possible to save project cost, as 1A and 10A have no differences at all in this case.

4. Traditional way to extend number of luminaire outlets requires hard-wiring from one box to another. Now thanks to the Bluetooth mesh network, QCB01/BLE-S can be easily extended to another QCB01/BLE-S wirelessly!





5. QCB01/BLE-S can be wirelessly controlled by an EnOcean Bluetooth self-powered switch or Hytronik's Bluetooth touch panel HBP02.



QCB01



Ordering data

QCB01

Key Features

- Non-dimmable control applications
- 8 luminaire outlets + 1 extra sensor outlet for sensor connection
- Luminaire outlet: GST type 4-pole terminal base (L', N, E, Em)
- Sensor outlet: GST type 8-pole terminal base (L, N, E, L1', L2', P1, P2)
- Black housing and white housing available to choose from
- Freely switch between 1-channel (1 x 8) & 2-channel (2 x 4) control
- Tamper-proof structure design
- Expandable: easy extension to another QCB01/ECO via plug' n' play
- Rating of system: Max 16A. Rating of each output: Max 10A

• Five types of installation methods meets different project needs

• Clear and clean wiring makes it easy for future maintenance

• Reduce labour hours and labour cost significantly

• Improved safety level during wiring operations

• Simple and intuitive wiring connections

Can be supplied with pre-wired cables

• Flame-retardant material for safety protection

Model name

Description GST type 4-pole terminal base quick connection bax for non-dimmable control applications, with 8 luminaire outlets and 1 sensor outlet. Freely switch

between1-channel and 2-channel control. Rating of

system 16A, rating of each output 10A.

Input & Output Terminal Function



Factory default for QCB01 comes with a pre-installed jumper wire, which short-connects Switched L1 and Switched L2 together. With this jumper wire, all the 8 luminaire outlet are considered as in a same channel (1 x 8) that are controlled together by the sensor/controller.



By removing this pre-installed jumper wire, the 8 outlets are then divided into two separate channels. This QCB01 becomes a 2-channel box with 2×4 luminaire outlet. The two channels will be controlled separately (Channel 1 is controlled by Switched L1, and Channel 2 is controlled by Switched L2).

Your Benefits



QCB01/ECO



* White color housing by default. Black color housing can be supplied upon request.

Key Features

- Non-dimmable control applications
- Economic design with 12 luminaire outlets
- Luminaire outlet: GST type 4-pole terminal base (L', N, E, Em)
- Black housing and white housing available to choose from
- Tamper-proof structure design
- Expandable: easy extension to another QCB01/ECO via plug' n' play
- Rating of system: Max 16A. Rating of each output: Max 10A
- Flame-retardant material for safety protection

Your Benefits

- Five types of installation methods meets different project needs
- Reduce labour hours and labour cost significantly
- Simple and intuitive wiring connections
- Improved safety level during wiring operations
- Clear and clean wiring makes it easy for future maintenance
- Can be supplied with pre-wired cables

Dimensions (mm) 4 X M6 screw fixing hole Channel for mounting rod Reserved hole 3 X Ø 20mm or BESA box cable entry Reserved hole 3 X Ø 20mm for cable entry BESA box fixing Q00 1000 6 ര 0000 l ooool lo 6

Ordering data

Model name	Description
QCB01/ECO	GST type 4-pole terminal base quick connection box for non-dimmable control applications. With 12 luminaire outlets for one-channel control. Rating of system 16A, rating of each output 10A.

Input & Output Terminal Function


Ceiling Rose

Ceiling rose QCCR01 can be used when there is a need to take power from a conduit box. The installation-friendly design comes with a very spacious termination space for really easy wirings.

Key Features:

- Can be freely placed or fixed with BESA/junction box
- Taking power from BESA/junction box
- 4-pole GST type connector (L, E, N, Em)
- Allowing fast connection with Hytronik quick connection box
- 15mm depth big cabling space
- 48-68mm pitch for conduit mounting
- Nominal current max.16A
- Flame-retardant material for safety protection

Mechanical Structure & Dimensions



Secure QCCR01 with BESA/Junction box



 $^{\ast}\text{QCCR01}$ is supplied with white color housing by default. Black color housing can be supplied upon request.

Input & Output Terminal Function





Connection to Hytronik's QCBs



Connection to Hytronik's Motion Sensors



Switching Products - - - Cables & Plugs



Switching Products - - - Cables & Plugs



Switching Products - - - Pre-wired Motion Sensor Options



Switching Products - - - Pre-wired Motion Sensor Options



Connection Boxes

QCB02/BLE series



Key Features

- Dimmable control applications (DALI/DALI-2 or 0/1-10V)
- Intelligent control with Bluetooth 5.0 SIG mesh module built in
- 4 types of built-in Bluetooth 5.0 control module to select from
- Detailed Bluetooth system features can be viewed on page 05-11
- Luminaire outlet: Wago 5-pole terminal base (L', N, E, Dim+, Dim-)
- Black housing and white housing available to choose from
- Tamper-proof structure design
- Expandable: easy extension to another QCB02/BLE wirelessly
- Rating of system - -

QCB02/BLE-D2: Max. 100mA DALI/DALI-2 power supply QCB02/BLE-DCA & QCB02/BLE-DTY: Max. 100mA DALI/DALI-2 power supply QCB02/BLE-V: Default rating is 400VA capacitive & 800W resistive. Max 10A can be supplied as a special version upon request

• Flame-retardant material for safety protection

Your Benefits

- Five types of installation methods meets different project needs
- Reduce labour hours and labour cost significantly
- Simple and intuitive wiring connections
- Improved safety level during wiring operations
- Clear and clean wiring makes it easy for future maintenance
- Can be supplied with pre-wired cables

Ordering data :



* White color housing by default. Black color housing can be supplied upon request.



Input & Output Terminal Function



In the middle of the QCB02/BLE there is a pre-installed Bluetooth 5.0 SIG mesh controller module. We offer 4 types of different controller modules for users to choose from. For each controller module, all the 8 luminaire outlets as regarded as one channel (1 x 8).

Default max rating for QCB02/BLE-D2 & QCB02/BLE-DCA & QCB02/BLE-DTY is 100mA;

Default max rating for QCB02/BLE-V is 400VA Capacitive & 800W Resistive. Max 10A can be supplied as a special version upon request.



QCB02/BLE products are also able to be integrated to Linect connection **Linect** system. With the T-connector module, connection to luminaires can be easily extended (luminaire needs to be **Linect**) connection enabled).





Install to luminaires to achieve easy extension

Wago 5 pole Linect® T-connector

What's so Helpful about QCB02/BLE Series Bluetooth "Intelligent" Control ?

(For Casambi's and Tuya's products, they have overall pretty much similar benifits and capabilities but still vary from one to another when it comes to the details. Users can always refer to Casambi's or Tuya's corresponding Bluetooth system to learn their capabilities and differences accordingly)

LUSer enjoys the full set of powerful Bluetooth features



2. When used with Hytronik's Bluetooth on/off motion sensor, the Bluetooth sensor can control all the luminaires wirelessly without needing to be hard-wired to the QCB02/BLE.



Hytronik's Bluetooth sensor can be plugged to a nearest ceiling rose, without needing to connect a long cable to the QCB02/BLE. This Bluetooth sensor will be able to wirelessly control all the luminaires that are connected to the QCB02/BLE. This is extremely useful by saving long cable wirings when there are multiple Bluetooth sensors controlling a same group of luminaires.

Thanks to the built-in Bluetooth 5.0 controller, QCB02/BLE is born to comes with dimming output to the luminaires (namely, QCB02/BLE-V provides 0/1-10V output, QCB02/BLE-D2 provides DALI/DALI-2 output. So the sensor only needs to be a non-dimmable on/off sensor that just picks up motion and sends out trigger signal via Bluetooth, and all the dimming controls will be performed by the QCB02/BLE box itself.

This makes sensor selections easy and cost-effective, aiming to cut the budget cost and reduce sensor model inventories for users.

Dimming Control Capability			
8		QCB02/BLE-V (0/1-10V output)	QCB02/BLE-D2 (DALI/DALI-2 output)
With Hytronik's On/Off Bluetooth sensor HBIR28	Lux on/off control		\checkmark
	Tri-level control (Corridor function)		\checkmark
	Daylight harvest control (Daylight regulating/interation)		\checkmark
	Color tuning control		
	Circadian rhythm control (Human Centric Lighting)		

Besides, there will be no requirement for the sensor's loading capability. Sensor just picks up motion and sends trigger signal via Bluetooth, the loading capability is purely determined by QCB02/BLE, which depends on internal control module selections. For QCB02/BLE-D2, the max. DALI power supply is 100mA; and for QCB02/BLE-V, the max. rate is 400VA capacitive & 800W resistive by default, and a special version of max 10A can be supplied upon request if higher loading capability is required. In other words, the sensor's loading capability can be as small as possible to save project cost, as 1A and 10A have no differences at all in this case.

What's so Helpful about QCB02/BLE's & QCB03/BLE's

Bluetooth "Intelligent" Control ?

3. When used with an ordinary non-Bluetooth on/off motion sensor (can be Hytronik's sensor or can be from any third-party), the built-in Bluetooth 5.0 controller "upgrades" this ordinary on/off sensor to a Bluetooth smart control sensor, with tri-level control dimming control.

With a built-in Bluetooth 5.0 controller in QCB02/BLE, an ordinary motion sensor can be "upgraded" to Bluetooth smart control using an App feature called "Sensor-link", which is easily achieved by wiring the L' of the ordinary sensor to the PUSH terminal of the QCB02/BLE. With this feature, the motion sensor works normally while the advanced Bluetooth control features such as scheduling, timer & recall scenes will all perform well at the same time.

Meanwhile, another great thing about "Sensor-link" feature is that, it will "upgrade" an on/off motion sensor to have tri-level dimming function (corridor function)! The on/off sensor that just picks up motion and sends out trigger signal via Bluetooth, and tri-level dimming control will be performed by the QCB02/BLE box

itself and users can set up stand-by parameters in the app freely. This makes sensor selections easy and cost-effective, aiming to cut the budget cost and reduce sensor model inventories for users.



Besides, there will be no requirement for the sensor's loading capability. Sensor just picks up motion and sends trigger signal, the loading capability is purely determined by the QCB02/BLE, which depends on internal control selections. For QCB02/BLE-D2, the max. DALL power supply is 100mA; and for QCB02/BLE-V, the max. rate is 400VA capacitive & 800VV resistive by default, and a special version of max 10A can be supplied upon request if higher loading capability is required. In other words, the sensor's loading capability can be as small as possible to save project cost, as 1A and 10A have no differences at all in this case.

4. Traditional way to extend number of luminaire outlets requires hard-wiring from one box to another. Now thanks to the Bluetooth mesh network, QCB02/BLE can be easily extended to another QCB02/BLE wirelessly!



5. QCB02/BLE can be wirelessly controlled by an EnOcean Bluetooth self-powered switch or Hytronik's Bluetooth touch panel HBP02.



QCB02 💌



* White color housing by default. Black color housing can be supplied upon request.

Key Features

- Dimmable control applications (DALI or DALI-2)
- 8 luminaire outlets + 1 extra sensor outlet for sensor connection
- Luminaire outlet: Wago 5-pole terminal base (L' or L, N, E, DA+, DA-)
- Sensor outlet: GST type 8-pole terminal base (L, P1, N, DA₁-, DA₁+, P2, DA₂-, DA₂+)
- Black housing and white housing available to choose from
- Freely switch between 1-channel (1 x 8) & 2-channel (2 x 4) control
- Tamper-proof structure design
- Expandable: easy extension to another QCB02 via plug' n' play
- Rating of system: Max 16A. Rating of each output: Max 10A
- Flame-retardant material for safety protection

Your Benefits

- Five types of installation methods meets different project needs
- Reduce labour hours and labour cost significantly
- Simple and intuitive wiring connections
- Improved safety level during wiring operations
- Clear and clean wiring makes it easy for future maintenance
- Can be supplied with pre-wired cables

Dimensions (mm)



Ordering data

Model name	Description
QCB02	Wago 5-pole terminal base quick connection box for dimming application, with DAU or DAU-2 output, 8 luminaire outlets and 1 sensor outlet. Freely switch between 1-channel and 2-channel control. Rating of system 16A, rating of each output 10A.





Factory default for QCB02 comes with two pre-installed jumper wires. The black jumper wire short-connects DA_1 - and DA_2 -, and the white jumper wire short-connects DA_1 + and DA_2 +. With these jumper wires, user can freely switch between one-channel and two-channel control.

1) one-channel (1 x 8) DALI dimming - - - keep both black wire & white wire.

2) two-channel (2 x 4) dual DALI dimming - - - remove both black wire & white wire.

In this case the two channels will be controlled separately (channel 1 is controlled by $DA_1 + \& DA_1^-$, and channel 2 is controlled by $DA_2^- \& DA_2^-$).

This flexible design aims to reduce model inventories for users, and just one box is capable enough to handle different requirements on the project site. Easy for management, and powerful for usage!

Connecting to **linect** System!

QCB02 products are also able to be integrated to Linect connection **Linect** system. With the T-connector module, connection to luminaires can be easily extended (luminaire needs to be **Linect** connection enabled).







Wago 5 pole Linect® T-connector

Prewired Wago 5 pole Linect® T-connector





Key Features

QCB03/BLE series

- Dimmable control applications (DALI/DALI-2 or 0/1-10V)
- Intelligent control with Bluetooth 5.0 SIG mesh module built in
- 4 types of built-in Bluetooth 5.0 control module to select from
- Detailed Bluetooth system features can be viewed on page 05-11
- Luminaire outlet: GST type 6-pole terminal base (L', N, E, Em, Dim+, Dim-)
- Black housing and white housing available to choose from
- Tamper-proof structure design
- Expandable: easy extension to another QCB03/BLE wirelessly
- Rating of system - -

QCB03/BLE-D2: Max. 100mA DALI/DALI-2 power supply QCB03/BLE-DCA & QCB03/BLE-DTY: Max. 100mA DALI/DALI-2 power supply QCB03/BLE-V: Default rating is 400VA capacitive & 800VV resistive. Max 10A can be supplied as a special version upon request

• Flame-retardant material for safety protection

Your Benefits

- Five types of installation methods meets different project needs
- Reduce labour hours and labour cost significantly
- Simple and intuitive wiring connections
- Improved safety level during wiring operations
- Clear and clean wiring makes it easy for future maintenance
- Can be supplied with pre-wired cables



* White color housing by default. Black color housing can be supplied upon request.



Model name Description

QCB03/BLE-V	(Built-in Bluetooth module code: HBTD8200V/F) 0/1-10V output Default rating 400VA capacitive & 800W resistive. Dimmable control with corridor function
QCB03/BLE-D2	(Builtin Bluetooth module code: HBTD8200D/F) DALI / DALI-2 output Max. 100mA DALI/DALI-2 power supply. DT8: Dimmable & Color Tunable
QCB03/BLE-DCA	(Built-in Bluetooth module code: HBTD8200D/F/CA) DALI / DALI-2 output Max. 100mA DALI/DALI-2 power supply. DT8: Dimmable & Color Tunable, Casambi Enabled
QCB03/BLE-DTY	(Builtin Bluetooth module code: HBTD8200D/TY/F) DALI / DALI-2 output Max. 100mA DALI/DALI-2 power supply. DT8: Dimmable & Color Tunable, Tuya Enabled

Input & Output Terminal Function



In the middle of the QCB03/BLE there is a pre-installed Bluetooth 5.0 SIG mesh controller module. We offer 4 types of different controller modules for users to choose from. For each controller module, all the 8 luminaire outlets as regarded as one channel (1 x 8).

Default max rating for QCB03/BLE-D2 & QCB03/BLE-DCA & QCB03/BLE-DTY is 100mA;

Default max rating for QCB03/BLE-V is 400VA Capacitive & 800W Resistive. Max 10A can be supplied as a special version upon request.

What's so Helpful about QCB03/BLE Series Bluetooth "Intelligent" Control ?

(For Casambi's and Tuya's products, they have overall pretty much similar benifits and capabilities but still vary from one to another when it comes to the details. Users can always refer to Casambi's or Tuya's corresponding Bluetooth system to learn their capabilities and differences accordingly)

1. User enjoys the full set of powerful Bluetooth features

(see page 05-11 for details).



2. When used with Hytronik's Bluetooth on/off motion sensor, the Bluetooth sensor can control all the luminaires wirelessly without needing to be hard-wired to the QCB03/BLE.



Hytronik's Bluetooth sensor can be plugged to a nearest ceiling rose, without needing to connect a long cable to the QCB03/BLE. This Bluetooth sensor will be able to wirelessly control all the luminaires that are connected to the QCB03/BLE. This is extremely useful by saving long cable wirings when there are multiple Bluetooth sensors controlling a same group of luminaires.

Thanks to the built-in Bluetooth 5.0 controller, QCB03/BLE is born to comes with dimming output to the luminaires (namely, QCB03/BLE-V provides 0/1-10V output, QCB03/BLE-D2 provides DALI/DALI-2 output. So the sensor only needs to be a non-dimmable on/off sensor that just picks up motion and sends out trigger signal via Bluetooth, and all the dimming controls will be performed by the QCB03/BLE box itself.

This makes sensor selections easy and cost-effective, aiming to cut the budget cost and reduce sensor model inventories for users.

Dimming Control Capability			
8		QCB03/BLE-V (0/1-10V output)	QCB03/BLE-D2 {DALI/DALI-2 output}
With Hytronik's On/Off Bluetooth sensor HBIR28	Lux on/off control		
	Tri-level control (Corridor function)	\checkmark	
	Daylight harvest control (Daylight regulating/interation)	\checkmark	
	Color tuning control		\checkmark
	Circadian rhythm control (Human Centric Lighting)		

Besides, there will be no requirement for the sensor's loading capability. Sensor just picks up motion and sends trigger signal via Bluetooth, the loading capability is purely determined by QCB03/BLE, which depends on internal control module selections. For QCB03/BLE-D2, the max. DALI power supply is 100mA; and for QCB03/BLE-V, the max. rate is 400VA capacitive & 800W resistive by default, and a special version of max 10A can be supplied upon request if higher loading capability is required. In other words, the sensor's loading capability can be as small as possible to save project cost, as 1A and 10A have no differences at all in this case.

What's so Helpful about QCB03/BLE Series Bluetooth "Intelligent" Control ?

3. When used with an ordinary non-Bluetooth on/off motion sensor (can be Hytronik's sensor or can be from any third-party), the built-in Bluetooth 5.0 controller "upgrades" this ordinary on/off sensor to a Bluetooth smart control sensor, with tri-level control dimming control.

With a built-in Bluetooth 5.0 controller in QCB03/BLE, an ordinary motion sensor can be "upgraded" to Bluetooth smart control using an App feature called "Sensor-link", which is easily achieved by wiring the L' of the ordinary sensor to the PUSH terminal of the QCB03/BLE. With this feature, the motion sensor works normally while the advanced Bluetooth control features such as scheduling, timer & recall scenes will all perform well at the same time.

Meanwhile, another great thing about "Sensor-link" feature is that, it will "upgrade" an on/off motion sensor to have tri-level dimming function (corridor function)! The on/off sensor that just picks up motion and sends out trigger signal via Bluetooth, and tri-level dimming control will be performed by the QCB03/BLE box

itself and users can set up stand-by parameters in the app freely. This makes sensor selections easy and cost-effective, aiming to cut the budget cost and reduce sensor model inventories for users.



Besides, there will be no requirement for the sensor's loading capability. Sensor just picks up motion and sends trigger signal, the loading capability is purely determined by the QCB03/BLE, which depends on internal control selections. For QCB03/BLE-D2, the max. DALI power supply is 100mA; and for QCB03/BLE-V, the max. rate is 400VA capacitive & 800VV resistive by default, and a special version of max 10A can be supplied upon request if higher loading capability is required. In other words, the sensor's loading capability can be as small as possible to save project cost, as 1A and 10A have no differences at all in this case.

4. Traditional way to extend number of luminaire outlets requires hard-wiring from one box to another. Now thanks to the Bluetooth mesh network, QCB03/BLE can be easily extended to another QCB03/BLE wirelessly!



5. QCB03/BLE can be wirelessly controlled by an EnOcean Bluetooth self-powered switch or Hytronik's Bluetooth touch panel HBP02.







Key Features

- Dimmable control applications (DALI/DALI-2 or 0/1-10V)
- 8 luminaire outlets + 1 extra sensor outlet for sensor connection
- Luminaire outlet: GST type 6-pole terminal base (L' or L, N, E, Em, Dim+, Dim-)
- Sensor outlet: GST type 8-pole terminal base (L, N, E, L', P1, P2, Dim-, Dim+)
- Black housing and white housing available to choose from
- Freely switch between 1-channel (1 x 8) & 2-channel (2 x 4) control
- Tamper-proof structure design
- Expandable: easy extension to another QCB03 via plug' n' play
- Rating of system: Max 16A. Rating of each output: Max 10A
- Flame-retardant material for safety protection

Your Benefits

- Five types of installation methods meets different project needs
- Reduce labour hours and labour cost significantly
- Simple and intuitive wiring connections
- Improved safety level during wiring operations
- Clear and clean wiring makes it easy for future maintenance
- Can be supplied with pre-wired cables

Dimensions (mm)



* White color housing by default. Black color housing can be supplied upon request.

Ordering data

Model name	Description
QCB03	GST type 6-pole terminal base quick connection box for dimming application, with DAU/DAU-2 or 0/1-10V output, 8 luminaire outlets and 1 sensor outlet. Freely switch between1-channel and 2-channel control. Rating of system 16A, rating of each output 10A.

Input & Output Terminal Function





Factory default for QCB03 comes with four pre-installed jumper wires. The brown wire short-connects Switched L1 and Switched L2 together, the red jumper wire short-connects Switched L1 and L, the black jumper wire short-connects Dim_1^- and Dim_2^- , and the white jumper wire short-connects Dim_1^+ and Dim_2^+ . With these jumper wires, user can freely choose different dimming control method and also freely switch between one-channel and two-channel control.

- 1) one-channel (1 x 8) DALI dimming - keep all four jumper wires.
- 2) two-channel (2 x 4) dual DALI dimming - keep red wire & brown wire, remove black wire & white wire. In this case the two channels will be controlled separately (channel 1 is controlled by Dim₁+ & Dim₁-, and channel 2 is controlled by Dim₂- & Dim₂+).
- 3) one-channel (1 x 8) 0/1-10V dimming - remove red wire, keep brown wire & black wire & white wire.
- 4) two-channel (2 x 4) dual 0/1-10V dimming - remove all four jumper wires.

In this case the two channels will be controlled separately (channel 1 is controlled by Switched L1, Dim₁+ & Dim₁-, and channel 2 is controlled by Switched L2, Dim₂- & Dim₂+).

- 5) two-channel (2 x 4) DALI dimming + on/off switching - keep red wire, remove brown wire & black wire & white wire. In this case the two channels will be controlled separately (channel 1 is controlled by Dim₁+ & Dim₁⁻, and channel 2 is controlled by Switched L2).
- two-channel (2 x 4) 0/1-10V dimming + on/off switching - remove all four jumper wires.
 In this case the two channels will be controlled separately (channel 1 is controlled by Dim₁+ & Dim₁⁻, and channel 2 is controlled by Switched L2).

This flexible design aims to reduce model inventories for users, and just one box is capable enough to handle different dimming requirements on the project site. Easy for management, and powerful for usage!





Key Features

- Dimmable control applications (DALI-2 or 0/1-10V)
- 12 luminaire outlets + 2 extra sensor outlet for sensor connection
- Luminaire outlet: GST type 6-pole terminal base (L' or L, N, E, Em, Dim+, Dim-)
- Sensor outlet: GST type 8-pole terminal base (L, N, E, L', P1, P2, Dim-, Dim+)
- Black housing and white housing available to choose from
- Freely switch between 1-channel (1 x 8) & 2-channel (2 x 4) control
- Tamper-proof structure design
- Expandable: easy extension to another QCB03/ECO via plug' n' play
- Rating of system: Max 16A. Rating of each output: Max 10A
- Flame-retardant material for safety protection

Your Benefits

- Five types of installation methods meets different project needs
- Reduce labour hours and labour cost significantly
- Simple and intuitive wiring connections
- Improved safety level during wiring operations
- Clear and clean wiring makes it easy for future maintenance
- Can be supplied with pre-wired cables



^r White color housing by default. Black color housing can be supplied upon request.

Ordering data

Model name	Description
QCB03/ECO	GST type 6-pole terminal base quick connection box for dimming application, with DALI or 0/1-10V output, 12 luminaire outlets and 2 sensor outlet. Freely switch between1-channel and 2-channel control. Rating of system 16A, rating of each output 10A.

Input & Output Terminal Function





Factory default for QCB03/ECO comes with four pre-installed jumper wires. The brown wire short-connects Switched L1 and Switched L2 together, the red jumper wire short-connects Switched L1 and L, the black jumper wire short-connects Dim_1 - and Dim_2 -, and the white jumper wire short-connects Dim_1 + and Dim_2 +. With these jumper wires, user can freely choose different dimming control method and also freely switch between one-channel and two-channel control.

- 1) one-channel (1 x 8) DALI dimming - keep all four jumper wires.
- 2) two-channel (2 x 4) dual DALI dimming - keep red wire & brown wire, remove black wire & white wire. In this case the two channels will be controlled separately (channel 1 is controlled by Dim₁+ & Dim₁-, and channel 2 is controlled by Dim₂- & Dim₂+).
- 3) one-channel (1 x 8) 0/1-10V dimming - remove red wire, keep brown wire & black wire & white wire.
- two-channel (2 x 4) dual 0/1-10V dimming - remove all four jumper wires.
 In this case the two channels will be controlled separately (channel 1 is controlled by Switched L1, Dim₁+ & Dim₁-, and channel 2 is controlled by Switched L2, Dim₂- & Dim₂+).
- 5) two-channel (2 x 4) DALI dimming + on/off switching - keep red wire, remove brown wire & black wire & white wire. In this case the two channels will be controlled separately (channel 1 is controlled by Dim₁+ & Dim₁⁻, and channel 2 is controlled by Switched L2).
- two-channel (2 x 4) 0/1-10V dimming + on/off switching - remove all four jumper wires.
 In this case the two channels will be controlled separately (channel 1 is controlled by Dim₁+ & Dim₁⁻, and channel 2 is controlled by Switched L2).

This flexible design aims to reduce model inventories for users, and just one box is capable enough to handle different dimming requirements on the project site. Easy for management, and powerful for usage!

 \otimes



Key Features

- Dimmable & Switching applications
- Intelligent control with Bluetooth 5.0 SIG mesh module built in
- Detailed Bluetooth system features can be viewed on page 05-11
- Luminaire outlet: GST type 6-pole terminal base (L', N, E, Em, Dim+, Dim-)
- 4 Low-volt SELV RJ45 sensors ports (can be daisy chained)
- 4 SELV switch inputs
- Support VFC (volt-free contact) & ELT switch
- Support up to 8 luminaire channels (via app)
- Black housing and white housing available to choose from
- Tamper-proof structure design
- Expandable: easy extension to another SCB01/BLE wirelessly!
- Rating of system --- Max. 100mA DALI power supply & 400VA capacitive & 800W resistive (each outlet/socket).
- Flame-retardant material for safety protection

Your Benefits

- Five types of installation methods meets different project needs
- Reduce labour hours and labour cost significantly
- Simple and intuitive wiring connections
- Improved safety level during wiring operations
- Clear and clean wiring makes it easy for future maintenance
- Can be supplied with pre-wired cables



* White color housing by default. Black color housing can be supplied upon request.

Ordering data

*

Model name	Description
SCB01/BLE	Designed for low-volt (SELV) applcaitions with SELV sensor connection and SELV PUSH/retractive switch. GST type 6-pole terminal base quick connection box for dimming (DALI-2) & switching application, 14 luminaire outlets, 4 SELV RJ45 sensor outlets and 4 SELV switch inputs. Support up to 8 luminaire channels via app, and an extra channel for VFC (volt-free contact) and an extra channel for ELT switch.

Input & Output Terminal Function





SELV (Low-volt) Direct Current Sensor Options



What's so Helpful about SCB01/BLE Bluetooth "Intelligent" Control ?

1. User enjoys the full set of powerful Bluetooth features (see page 05-11 for details).

3. SCB01 can be wirelessly controlled by an EnOcean Bluetooth self-powered switch or Hytronik's Bluetooth touch panel HBP02.



4. Channel Grouping. Simple tick-box channels to group luminaire channels together!

NEW! SCB02/BLE

Key Features

- Dimmable & Switching applications
- Dual-circuit design for applications with both essential & non-essential supplies
- Intelligent control with Bluetooth 5.0 SIG mesh module built in
- Detailed Bluetooth system features can be viewed on page 05-11
- Luminaire outlet: GST type 6-pole terminal base (L', N, E, Em, Dim+, Dim-)
- 4 Low-volt SELV RJ45 sensors ports (can be daisy chained)
- 4 SELV switch inputs
- Support VFC (volt-free contact) & 2 ELT switches
- Support up to 8 luminaire channels (via app)
- Black housing and white housing available to choose from
- Tamper-proof structure design
- Expandable: easy extension to another SCB01/BLE wirelessly!
- Rating of system --- Max. 100mA DAU power supply & 400VA capacitive & 800W resistive (each outlet/socket).
- Flame-retardant material for safety protection

Your Benefits

- Five types of installation methods meets different project needs
- Reduce labour hours and labour cost significantly
- Simple and intuitive wiring connections
- Improved safety level during wiring operations
- Clear and clean wiring makes it easy for future maintenance
- Can be supplied with pre-wired cables





Ordering data

* White color housing by default. Black color housing can be supplied upon request.

Model name	Description
	Dual-circuit design for applciations with both essential & non-essen- tial supplies.
	Designed for low-volt (SELV) applcaitions with SELV sensor connection and SELV PUSH/retractive switch.
SCB02/BLE	GST type & pole terminal base quick connection box for dimming (DALI-2) & switching application, 14 luminaire outlets, 4 SELV RJ45 sensor outlets and 4 SELV switch inputs. Support up to 8 luminaire channels via app, and an extra channel for VFC (volt-free contact) and two extra channel for ELT switches.

Input & Output Terminal Function





SELV (Low-volt) Direct Current Sensor Options



What's so Helpful about SCB02/BLE Bluetooth "Intelligent" Control ?

1. User enjoys the full set of powerful Bluetooth features (see page 05-11 for details).



3. SCB02/BLE can be wirelessly controlled by an EnOcean Bluetooth self-powered switch or Hytronik's Bluetooth touch panel HBP02.





4. Channel Grouping. Simple tick-box channels to group luminaire channels together!





Key Features

- Dimmable control applications (DALI-2 or 0/1-10V)
- Dual-circuit design for applications with both essential & non-essential supplies
- 12 luminaire outlets + 2 extra sensor outlet for sensor connection
- Luminaire outlet: GST type 6-pole terminal base (L' or L, N, E, Em, Dim+, Dim-)
- Sensor outlet: GST type 8-pole terminal base (L, N, E, L', P1, P2, Dim-, Dim+)
- Black housing and white housing available to choose from
- Tamper-proof structure design
- Expandable: easy extension to another QCB03 via plug' n' play
- Rating of system: Max 16A. Rating of each output: Max 10A
- Flame-retardant material for safety protection

Your Benefits

- Five types of installation methods meets different project needs
- Reduce labour hours and labour cost significantly
- Simple and intuitive wiring connections
- Improved safety level during wiring operations
- Clear and clean wiring makes it easy for future maintenance
- Can be supplied with pre-wired cables



* White color housing by default. Black color housing can be supplied upon request.

Ordering data

Model name	Description
SCB03	Dual-circuit design for applications with both essential & non-essential supplies. GST type 6-pole terminal base quick connection box for dimming application, with DAU or 0/1-10V output, 12 luminaire outlets and 2 sensor outlet. Freely switch between1-channel and 2-channel control. Rating of system 16A, rating of each output 10A.

Input & Output Terminal Function





Factory default for SCB03 comes with 2 pre-installed jumper wires. The brown wire short-connects Switched L1 and L1 together, the red jumper wire short-connects Switched L2 and L2 together. With these jumper wires, user can freely choose different dimming control method and also freely switch between DALI control and 0/1-10V control.

- 1) two-channel (2 x 6) dual DALI dimming - keep both jumper wires.
- 2) two-channel (2 x 6) dual 0/1-10V dimming - remove both jumper wires.
- 3) two-channel (2 x 6) with Sensor 1 using DALI dimming, and Sensor 2 using On/Off or 0/1-10V dimming - remove red wire, keep brown wire.
- 4) two-channel (2 x 6) Sensor 1 using On/Off or 0/1-10V dimming, and Sensor 2 using DALI dimming - remove brown wire, keep red wire.

This flexible design aims to reduce model inventories for users, and just one box is capable enough to handle different dimming requirements on the project site. Easy for management, and powerful for usage!

Ceiling Rose

Ceiling rose QCCR02 can be used when there is a need to take power and dimming signal from a conduit box. The installation-friendly design comes with a very spacious termination space for really easy wirings.

Key Features:

- Can be freely placed or fixed with BESA/junction box
- Taking power from BESA/junction box
- 6-pole GST type connector (L, E, N, Em, Dim+, Dim-)
- Allowing fast connection with Hytronik quick connection box
- 15mm depth big cabling space
- 48-68mm pitch for conduit mounting
- Nominal current max.16A
- Flame-retardant material for safety protection

Mechanical Structure & Dimensions



Secure QCCR02 with BESA/Junction box



*QCCR02 is supplied with white color housing by default. Black color housing can be supplied upon request.

Input & Output Terminal Function





Connection to Hytronik's QCBs



Dimming Products - - - Cables & Plugs



- (Brown, Yellow/Green, Blue, Red, White)
- Black color plug & Black color cable



Dimming Products - - - Cables & Plugs



Dimming Products - - - Pre-wired Motion Sensor Options





order code/Picture	Description	
Sensor + HP05/2X1 e.g. HBIR29+HP05/2X1 🛞	(applicable sensor model: HBIR29, HBIR29/R, HBIR29/W) e.g. 1 pc HBIR29 delivered with pre-installed sensor plug (for use with QCB02)	
Sensor + HP05/2X1 e.g. HBIR29+HP06/2X1	(applicable sensor model: HBIR29, HBIR29/R, HBIR29/W) e.g. 1 pc HBIR29 delivered with pre-installed sensor plug (for use with QCB03, QCB03/ECO and SCB03)	
ensor + QCB/SCB model g. HBIR29+QCB03	(applicable QCB model: QCB02, QCB03, QCB03/ECO, SCB03)	
8	(applicable sensor model: HBIR29, HBIR29/R, HBIR29/W)	
	e.g. HBIR29 delivered with pre-installed QCB03	
lease note: 1. Optional sensor	accessories can be purchased upon request	

2. The length of cable is 3m by default. 5m cable length can be supplied upon request



Dimming Products - - - Pre-wired Motion Sensor Options



1. Optional sensor accessories can be purchased upon request

2. The RJ45 cable is not supplied in the package. User needs to purchase the RJ45 cable on his own.



Please note: 1. Optional sensor accessories can be purchased upon request

2. The length of cable is 3m by default. 5m cable length can be supplied upon request

Dimming Products - - - Pre-wired Motion Sensor Options




Please note: 1. Optional sensor accessories can be purchased upon request

2. The length of cable is 3m by default. 5m cable length can be supplied upon request



Sensor + HP06/2X1 e.g. HMW14+HP06/2X1

Sensor + QCB/SCB model e.g. HMW14+QCB03 Please note: 1. Optional sensor accessories can be purchased upon request

SCB031

2. The length of cable is 3m by default. 5m cable length can be supplied upon request

1pc HMW14 delivered with pre-installed sensor plug

(applicable QCB model: QCB02, QCB03, QCB03/ECO,

(for use with QCB03, QCB03/ECO and SCB03)

(applicable sensor model: HMW14, HMW15) e.g. HMW14 series delivered with pre-installed QCB03

ption
HMW21, HMW22) with pre-installed sensor plug 2B03/ECO and SCB03)
QCB02, QCB03, QCB03/ECO, HMW21, HMW22) vered with pre-installed QCB03
hased upon request cable length can be supplied upon

HMW21/HMW22

See pg. 164-165 for full details & specs information	Optional Surface Mount Box	
Order code	Picture	Description
Sensor + HP05/2X1 e.g. HMW24+HP05/2X1		(applicable sensor model: HMW24, HMW25) 1pc HMW24 delivered with pre-installed sensor plug (for use with QCB02)
Sensor + HP06/2X1 e.g. HMW24+HP06/2X1		(applicable sensor model: HMW24, HMW25) 1pc HMW24 delivered with pre-installed sensor plug (for use with QCB03, QCB03/ECO and SCB03)
Sensor + QCB/SCB model e.g. HMW24+QCB03		(applicable QCB model: QCB02, QCB03, QCB03/ECO, SCB03) (applicable sensor model: HMW24, HMW25) e.g. HMW24 series delivered with pre-installed QCB03

Please note: 1. Optional sensor accessories can be purchased upon request 2. The length of cable is 3m by default. 5m cable length can be supplied upon request

HIR21/HIR22

HIR21: 1-10V + Tri-level Control; HIR22: 1-10V + Daylight Harvest



Please note: 1. Optional sensor accessories can be purchased upon request

2. The length of cable is 3m by default. 5m cable length can be supplied upon request





Dimmers & Controllers & Switches

6	Overview:	Dimmers/	Cotrollers/S	witches fo	r Projects	(built-in junctic	on box)
				Bluetooth 5.0 SIG Mesh			Page
	HBTD8200S	220~240Vac	On/off 400VA/800W	\checkmark	\checkmark	\checkmark	287
NEWI	HBTD8200VFC	220~240Vac	On/off + Volt-free Dry contact 24VDC≤2A, 250VAC≤4A	\checkmark	\checkmark	\checkmark	287
	HBTD8200D	220~240Vac	DALI Max. 100mA	\checkmark	\checkmark	\checkmark	287
	HBTD8200V	220~240Vac	0/1-10V 400VA/800W	\checkmark	\checkmark	\checkmark	287
	HBTD8200T	230Vac	Trailing Edge 150VA/150W	\checkmark	\checkmark	\checkmark	287
	HBTD8200T2	230Vac	Trailing Edge 2×100VA 2×150W	\checkmark	\checkmark	\checkmark	288
NEW	HBTD8200P	220~240Vac		\checkmark	\checkmark (SLEV switch)		288
NEW	HBTD8200PDC	12Vdc		\checkmark	√ (SLEV switch)		288
NEW	HBTD8200D/CA	220~240Vac	DALI Max. 100mA	√ (Casambi)	\checkmark	\checkmark	288
NEW	HBTD8200D/TY	220~240Vac	DALI Max. 100mA	√ (Tuya)			288
	HD2200	230Vac	Convert Trailing edge to Switch-Dim 150W/200W		\checkmark		289

Overview: Dimmers/Cotrollers/Switches for Projects (built-in junction box)

				Bluetooth 5.0 SIG Mesh		
	HDD2200	220~240Vac	Convert DALI to trailing edge 200VA/200W			289
	HDS2400	220~240Vac	Convert DALI to On/Off 400VA/800W			280
NEW	∬ HD8200V	220~240Vac	Convert Push to 0/1-10V 400VA/800W		\checkmark	289
NEW	JI HDD8200	220~240Vac	Convert Push to DALI Max. 100mA		\checkmark	289

Overview: Dimming/Switching Modules for OEMs (built-in luminaire)

	U.	Input	Output	Bluetooth 5.0 SIG Mesh	Push Switch	Sensor-link	Page
	HBTD8200S/F	220~240Vac	On/off 400VA/800W	\checkmark	\checkmark	\checkmark	290
NEW	N HBTD8200VFC/F	220~240Vac	On/off + Volt-free Dry contact 24VDC≤2A, 250VAC≤4A	\checkmark	\checkmark	\checkmark	290
	HBTD8200D/F	220~240Vac	DALI Max. 100mA	\checkmark	\checkmark	\checkmark	290
	HBTD8200V/F	220~240Vac	0/1-10V 400VA/800W	\checkmark	\checkmark	\checkmark	290
	HBTD8200T/F	230Vac	Trailing Edge 150VA/150W	\checkmark	\checkmark	\checkmark	290
NE	N HBTD8200D/TY/F	220~240Vac	DALI Max. 100mA	√ (Tuya)	\checkmark	\checkmark	291
NE		220~240Vac	DALI Max. 100mA	√ (Casambi)	\checkmark	\checkmark	291
	HBTD9200S/F	120~277Vac	On/off 400VA/800W	\checkmark	\checkmark	\checkmark	291
	HBTD9200V/F	120~277Vac	0/1-10V 400VA/800W	\checkmark	\checkmark	\checkmark	291
	HBTD9200VFC/F	120~277Vac	On/off + Volt-free Dry contact 24VDC≤2A, 250VAC≤4A	\checkmark	\checkmark	\checkmark	291



HBTD8200T2 & HBTD8200P & HBTD8200PDC & HBTD8200D/CA & HBTD8200D/TY





HBTD8200S/F & HBTD8200VFC/F & HBTD8200D/F & HBTD8200V/F & HBTD8200T/F





System Level Components





Bluetooth[®] Panel



Bluetooth[®] 5.0 SIG Mesh (*See full details on pg. 05-11)

- Touch Panel, designed for junction box / electrical box installation
- Input: 220V-240V, 50/60Hz
- RTC keeps real-time for up to 7-8 weeks against power failure
- 4 buttons for brightness/color temperature adjustment
- 6 scenes buttons can be assigned using the App
- Touch screen with vibration/beeper/LED indication
- Clean mode/Screen lock time
- One-key sensor take over function
- Manual adjustment: on/off, dim and color tuning
- Manual / Auto display screen brightness adjustment
- Mobile/tablet app control

DALI Panel

- Touch Panel, designed for junction box / electrical box installation
- Input: 9.5-22.5VDC
- DALI Broadcast
- Group control or broadcast control via rotary switch
- 4 buttons for brightness/color temperature adjustment
- 6 scenes buttons correspondent to DALI scene 1-4
- Touch screen with beeper/LED indication
- Clean mode/Screen lock time
- Manual adjustment: on/off, dim and color tuning

NEW! HDP08



- Fully support Hytronik's Bluetooth Eco-system products
-

*The package contains a single rocker and two smaller rockers altogether.

Bluetooth[®] Real-time Keeper & Repeater Module

HTG01



- Input: 120V-277V, 50/60Hz
- Standard version with up to 30m transmission distance
- Ability to keep up to 12 weeks mesh network real-time against power failure
- Works as a Bluetooth repeater node to relay communication signal and extend mesh distance
- Stand-alone installation design to fix into junction box

- Input: 120V-277V, 50/60Hz
- Standard version with up to 30m transmission distance
- Ability to keep up to 12 weeks mesh network real-time against power failure
- Works as a Bluetooth repeater node to relay communication signal and extend mesh distance
- Built-in design for OEMs with screw holes for mounting





Input: 120V-277V, 50/60Hz

- Reinforced version with up to 50m transmission distance
- Two styles of antenna to choose from
- Ability to keep up to 12 weeks mesh network real-time against power failure
- Works as a Bluetooth repeater node to relay communication signal and extend mesh distance
- Built-in design for OEMs with screw holes for mounting



Bluetooth® Demo Suitcase





Overview: Daylight Sensors								
3		Output	Daylight Sensor	Pro-active Lux Switching	DIP-Switch Settings	Remote Controller	Page	
DS05	220-240Vac 50/60Hz	On/off 400VA/800W	Photocell Advance™	\checkmark	\checkmark	√ HRC-11	298	
DS06	220-240Vac 50/60Hz	Daylight harvest 400W/800W	Photocell Advance™	\checkmark		√ HRC-11	298	
DS07	220-240Vac 50/60Hzt	Daylight harvest 80mA power supply (PSU)	Photocell Advance™	\checkmark		√ HRC-11	298	
	DS05 DS06 DS06 DS07	Input DS05 220-240Vac 50/60Hz DS06 220-240Vac 50/60Hz DS06 220-240Vac 50/60Hz DS07 220-240Vac 50/60Hzt	Input Output DS05 220-240Vac On/off Imput 220-240Vac On/off DS06 220-240Vac On/off Imput 220-240Vac On/off DS06 220-240Vac Daylight harvest Imput 220-240Vac SonA power supply (PSU)	Input Output Daylight Sensor DS05 220-240Vac On/off Photocell MovA/800W Advance TM Advance TM DS06 220-240Vac Daylight harvest Photocell MovA/800W Advance TM Advance TM DS06 MovA/800W 220-240Vac Daylight harvest Photocell MovA/800W Advance TM Advance TM Advance TM MovA/800W 220-240Vac Daylight harvest Photocell MovA/800W Advance TM Advance TM Advance TM	Input Output Daylight Sensor Pro-active Lux Switching DS05 220-240Vac 50/60Hz On/off 400VA/800W Photocell Advance TM ✓ DS06 220-240Vac 50/60Hz Daylight harvest 400WA/800W Photocell Advance TM ✓ DS06 220-240Vac 50/60Hz Daylight harvest 400W/800W Photocell Advance TM ✓ DS07 220-240Vac 50/60Hzt Daylight harvest 80mA power supply (PSU) Photocell Advance TM ✓	Input Output Daylight Sensor Pro-active Lux Switching DIP.Switch Settings DS05 220:240Vac 50/60Hz On/off 400VA/800W Photocell Advance TM ✓ ✓ DS06 220:240Vac 50/60Hz Daylight harvest 400W/800W Photocell Advance TM ✓ ✓ DS06 220:240Vac 50/60Hz Daylight harvest 400W/800W Photocell Advance TM ✓ ✓ DS07 220:240Vac 50/60Hz Daylight harvest 80mA power supply (PSU) Photocell Advance TM ✓ ✓	Solution Productive Lux Switching DIP-Switch Settings Remote Controller S05 220240Vac S0/60Hz On/off 400VA/800W Photocell Advance TM V V V V S06 220240Vac S0/60Hz On/off 400VA/800W Photocell Advance TM V V V V S06 220240Vac S0/60Hz Daylight harvest 400W/800W Photocell Advance TM V V V V S07 220240Vac S0/60Hz Daylight harvest 80mA power supply (PSU) Photocell Advance TM V V V V	









- Input: 220-240VAC, 50/60Hz
- Output (Max Loading): 80mA
- Warming-up period: 20s
- Ta: -20°C ~ +60°C; Tc: +80°C
- DALI broadcast output
- Daylight harvest

- Daylight sensor: Photocell Advance[™] (*See pg. 14-17)
- Pro-active Lux Switching technology (*See pg. 16)
- Switch-Dim (PUSH) terminal
- Sensor settings via handset HRC-11
- Optional accessory: end-caps on both end

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PCBA Modules (SKD)



Bluetooth 5.0 Mesh Modules



- LED Fault detection
- Conformity: IEC62386-102:2018; IEC62386-207:2018

KMD01-DT8 & UC20DC & LEB02 & UC20RC







- Microwave (HF) module
- L * W * D: 20mm * 20mm * 45mm
- Tri-level dimming (*See pg. 01)
- Frequency: 5.8GHz ±75MHz
- Input: 12VDC (≥25mA)
- Output (Max Loading): 5V, PWM
- Max installation height: 6m
- Max detection range: 10m (diameter)
- Robust HF antenna design against wireless interference (*See pg. 13)
- Sensor settings via handset HRC-05

SAM12NH & SAM12NH/RC05 & SAM14NH & SAM14NH/RC05



Optional Accessories







HA04



Applicable sensor models:



HA05



Optional Accessories - - - HA06 & HA07



Appendixes & Addtional Documents



HRC-01



HRC-04







HRC-12
Knowledges & Precautions for Microwave (HF) Sensor Usage:

Microwave motion sensor implements occupancy detection by use of High Frequancy (HF). The technology is based on the Doppler effect principle which can be used to determine the size, speed and direction of an object. Understanding the basic principle is to consider it as a radar, in which a signal is sent and received by an antenna.

Hytronik's microwave sensor provides multiple sensitivity range settings (100% / 75% / 50% / 30% / 10%). Here we only put detection distance data for 100% sensitivity level. Please kindly take note that 100% / 75% / 50% / 30% / 10% is for easier understanding purpose only, in other sensitivity levels the detection distance on the ground does not reflect a proportional mathematic calculation (e.g. the distance data on 30% sensitivity level is not equal to 0.3* table data).

3

The actual detection range/distance for microwave sensor can vary depending on the following factors:

- With multiple persons walking in the area, the detection distance will be longer than one person walking.
- Different size of the person, different walking pace of the person, and different height of the person can all result in slight differences in testing result.
- Different testing field can also provides different testing result, so please make sure to always carry out distance testing at the same testing field with ceiling and spacious area.
- Hytronik's typical testing data is based on radial movement (walking towards). If walking direction is different, the result will also be different.
- The detection pattern of a microwave sensor is not a perfect circle/round shape. Hytronik's detection statistics are based on the longest direction to provide max. detection range data.
- Reflections within different structure/shape/material of luminiare and from different types of ceiling. Different types of luminaires and ceilings could result in HF signal reflection and attenuation. E.g. Metallic parts of luminaires reflect HF signals; microwave signal sometimes appears to be reduced when placed behind materials such as thick polycarbonate.
- The distance data is tested under the condition that the sensor is not installed in any light fixtures. In real case when there is LED driver, sometimes the detection distance tend to be shorter because different LED drivers may have different soft-on period.



2

Due to the nature property of microwave detection technology, the microwave sensor's performance also depends on the ambient environment.

Wireless signal interferences or strong electro-magnetic wave interferences in the air such as strong Wi-Fi signals and nearby GSM tower. (Thanks to Hytronik's robust antenna technology, this concern has been eliminated now and Hytronik's latest robust antenna sensors can perform stably and normally even if placed in unfriendly wireless applications)

- Microwave detection can be affected by metals such as iron, steel, concrete etc.
- Microwave signal can penetrate through wood or gypsum partition materials, and tend to pick up motion outside of a confined space.

Moving objects such as ventilation vans, fast wind/air movement, elevators, animals etc could potentially false trigger microwave sensor.

- Vibrations casued by air traffic, big power machines around, swinging as a result of installing sensor in suspended state etc could potentially false trigger microwave sensor.
- Microwave detection is not recommended in outdoor usages, because it requires a stable reference and is subject to environmental infuences such as wind or heavy rain, which could potentially cause false triggering.

4

Sensor installation: Expose the antenna above the gear tray level for optimal detection range. If the sensor is intalled at or well below the LED gear tray level, the detection range could be reduced.



When installing luminaires with microwave sensor fitted, avoid installing two neighbouring luminaires too close to each other as they can collect each other's signals and confuse each other, hence resulting in potential false triggering. We recommend the mounting distance between sensors to be more than 3m to avoid sensors being false triggered.



Appendix (b): Precautions for Using HF Sensors



About True Presence

For motion sensors with True Presence detection technology, there are two aspects to be aware.

- Different people's breathing frequency, breathing rate, breathing strength varies could cause difference in actual presence detection distance.
- Our presence detection test data is based on sitting towards the sensor. Sitting back to the sensor or sitting tangentially to the sensor could cause difference in actual presence detection distance.

7

Sensor working under extremely low temperatue:

The rated minimum working temperature of Hytronik microwave motion sensor is generally -20°C (For exact value, please kindly refer to the specific product data sheet). However, in special application, the microwave motion sensor is intended to work in an environment with temperature lower than -20°C, such as in a cold storage. In this case, there are a few aspects which require special attention:

A) To enable the sensor working in such environment, some users may start up the microwave sensor under normal temperature level first, i.e. more than -20°C. After starting up, the user will need to keep the sensor working under this normal temperature range for at least 30 minutes to fully warm up the sensor internal parts. After warm-up, user can further decrease the operation temperature to a lower level. However, please kindly take note that the lowest temperature level it can go is -40°C.

B) In case of power outage, the user has to repower on the sensor under normal temperature level again. Before further decreasing

the operation temperature of the cold storage to below -20°C, the sensor has to keep working under normal temperature for at least 30 minutes to totally heat up the sensor internal parts again.

C) For such special application, the lifetime of the sensor will be reduced. Hytronik standard guarantee is not applicable as the product is not used according to the specifications.



Remote control:

For some microwave motion sensors, they have to be commissioned via a remote control. There are a few aspects to be aware of when commissioning with a remote control:

A) Make sure that the remote control is loaded with two AAA batteries. Under normal use, batteries last about a year. However, replace them whenever the LED indicator of the remote control and the microwave sensor appears to not respond to commands.

B) To commission the sensor with the remote control (especially for high bay microwave sensors), direct the transmitting part of the remote control to the sensor within vertical angle of $+/-15^{\circ}$ and at installation height of 10m to 15m. The flashing of LED indicator from the remote control and lights controlled by the sensor flashing indicate that the transmission is properly done.

C) It is possible that signals from the remote control will not be received in spaces that have fluorescent lighting, incandescent lighting and other light sources which contain high level of infrared light around or near the sensor, or when the sensor is installed outdoor whereby there are sunlights.

9

Inrush current:

When an LED driver is turned on, instant high current flows into the circuit of a microwave motion sensor, of which it can be as high as 50 times of the steady state currents. In order to protect high inrush current from damaging the microwave sensor, please kindly make sure that the total inrush current from the LED driver is less than the limit a sensor can withstand.

A) For example, to enable synchronization control of a group of microwave sensors, an installer can connect the L' terminal in parallel. In this way, whichever sensor is triggered, the whole group of microwave sensors will turn on. There are two limitations that have to be taken into consideration:

 i) The inrush current from the LED driver has to be less than the limit a microwave sensor can withstand;

ii) The total loading of the whole group of microwave sensors connected together in parallel should not exceed the rated loading of a single sensor. E.g. with luminaire of 30W, an installer can connect 13 pieces of HC009S together via L' terminals in parallel because the rated loading of a single HC009S is 400VA (capacitive), i.e. 30W x 13 pieces = 390VA < 400VA.

B) Before applying such wiring to allow synchronization control, it is strongly recommended to run a field test in real life to ensure that all of the microwave sensors in that group work well in such L' connection. In case of using an LED driver which has compatibility problem with the sensor, it could cause interference, e.g. when the first sensor switches off after hold time or standby time, the other sensors in the same group do not turn off due to interference caused by the LED driver.

C) Please kindly note that if the inrush current from the LED driver exceeds the limit a microwave senor can withstand, the sensor can still work; however, the lifetime of the sensor will be reduced. For such case, Hytronik standard guarantee is not applicable as the product is not used according to the specifications.

Kind Reminder: Please always make sure that field testings are conducted before applying to mass installations, this is to make sure that the performance of the sensor are tested ok on-site, otherwise if the installation environment is not friendly to microwave technology, then the sensor may not work normally and could behave strangely or become false triggered on the project site.

Knowledges & Precautions for PIR Sensor Usage:

PIR motion sensor is based on the principle of which the detection of heat movement across 'windows' or 'planes' created by the optic in front of the passive infrared detector. The optic design is fundamental to the detection area and can be controlled by the use of 'blind', usually in the form of a plastic attachment or stickers to cover the segments of the optic.



When using PIR motion sensors, there are a few aspects that should be taken into consideration in order to ensure stable PIR performance. Before installation, it is a must to carry out a performance evaluation test under representative conditions as the sensitivity of PIR motion sensors is influenced by environmental conditions:

A) PIR motion sensor requires line-of-sight. When building the sensor into a luminaire, please make sure that the PIR must be visible with the optic directed towards the flow of traffic; it will not work behind any diffuser or lens. The PIR optic needs to be exposed.

B) The PIR motion sensor must be kept away from strong sources of heat, such as LED lamps, heatsinks and any control gears such as LED driver. Particularly, when the ambient temperature is close to that of the human body, the PIR would be not able to work properly and react rather slowly, such as during summer season. Vice versa, during winter season, the PIR sensor works better and picks up movements more swiftly. So, please kindly pay attention to the thermal management of the luminaire and ambient temperature of the environment.

C) On the other hand, the cool air from the air conditioner (or other sources) could also cause false triggering, especially when turning on the air conditioner (or other sources) under a warm environment which causes sudden change in ambient temperature. Vice versa, when turning on the heater under a cool environment, this could likewise cause false triggering due to the sudden change in ambient temperature.

D) When the optic of PIR motion sensor is exposed to dust or other kinds of contamination, the PIR performance can degrade.

E) PIR sensor needs a stable installation to perform normally. Avoid installing a PIR sensor in an environment with vibration or swinging. Vibration or swinging may cause the PIR to become false-triggered.



2

Due to the nature property of PIR, please kindly take note that the actual detection range/distance of PIR motion sensor can vary depending on the following factors:

A) Walking towards or walking across the edge of the detection area:

 PIR motion sensor is sensitive to tangential rather than radial movements. Hytronik's testing data is based on tangential movement (walking accross). If walking direction is different, the result will also be different.

 PIR tends to feel to be slow to react, especially in traffic approaching/towards the sensor (radial), rather than crossing it (tangential). An indication regarding tangential and radial movement is as follows:



B) Different size of the person, different walking pace of the person, and different height of the person can all result in slight differences in testing result.

C) Different testing field can also provides different testing result, so please make sure to always carry out distance testing at the same testing field with ceiling and spacious area.

D) The distance data is tested under the condition that the sensor is not installed in any light fixtures. In real case when there is LED driver, sometimes the detection distance tend to be shorter because different LED drivers may have different soft-on period.

Remote control:

For some PIR motion sensors, they have to be commissioned via a remote control. There are a few aspects to be aware of when commissioning with a remote control:

A) Make sure that the remote control is loaded with two AAA batteries. Under normal use, batteries last about a year. However, replace them whenever the LED indicator of the remote control and the PIR sensor appears to not respond to commands.

B) To commission the sensor with the remote control (especially for high bay PIR sensors), direct the transmitting part of the remote control to the sensor within vertical angle of $+/-15^{\circ}$ and at installation height of 10m to 15m. The flashing of LED indicator from the remote control and lights controlled by the sensor flashing indicate that the transmission is properly done.

C) It is possible that signals from the remote control will not be received in spaces that have fluorescent lighting, incandescent lighting and other light sources which contain high level of infrared light around or near the sensor, or when the sensor is installed outdoor whereby there are sunlights.

4

Inrush current:

When an LED driver is turned on, instant high current flows into the circuit of a PIR motion sensor, of which it can be as high as 50 times of the steady state currents. In order to protect high inrush current from damaging the PIR sensor, please kindly make sure that the total inrush current from the LED driver is less than the limit a sensor can withstand.

i) The inrush current from the LED driver has to be less than the limit a PIR sensor can withstand;

ii) The total loading of the whole group of PIR sensors connected together in parallel should not exceed the rated loading of a single sensor. E.g. with luminaire of 30W, an installer can connect 13 pieces of HIR28 together via L' terminals in parallel because the rated loading of a single HIR28 is 400VA (capacitive), i.e. 30W x 13 pieces = 390VA < 400VA.

Please kindly note that if the inrush current from the LED driver exceeds the limit a PIR sensor can withstand, the sensor can still work; however, the lifetime of the sensor will be reduced. For such case, Hytronik standard guarantee is not applicable as the product is not used according to the specifications.

Kind Reminder: Please always make sure that field testings are conducted before applying to mass installations, this is to make sure that the performance of the sensor are tested ok on-site, otherwise if the installation environment is not friendly to PIR technology, then the sensor may not work normally and could behave strangely or become false triggered on the project site.

Knowledges & Precautions for Bluetooth Products Usage:



Due to the nature of Bluetooth mesh network, the number of smartphones/tablets should not exceed the number of Bluetooth devices when entering to the mesh network to control the device. E.g. If there are three smartphones attempting to control two Bluetooth products at the same time, there will be only two of the three smartphones which are able to search for Bluetooth devices and enter the mesh network when opening the app. Put it simply, the max. number of smartphones/tablets controlling the network at the same time should be no more than the max. number of Bluetooth devices.

2

We recommend the distance between a smartphone and a Bluetooth device to be around 10m. However, please kindly take note that it is very much dependent on the Bluetooth capability of a smartphone or a tablet and environmental factors.

3

The communication range between two Hytronik Bluetooth units can be affected by the surroundings and obstacles such as metals, concrete walls and sheet steel. For example, when Bluetooth dimmer (HBTD8200 series) is installed inside a junction box behind a concrete wall, the Bluetooth transmission range would be reduced. Also, the range could also be affected adversely if a Bluetooth device is installed in a metal enclosure. Other forms of interference which may affect the range include Wi-Fi routers, microwave ovens and other such sources which emit strong wireless signals should be taken into consideration when installing. The Bluetooth transmission range can be up to 30m indoor and 50m outdoor. We recommend to always carry out communication tests under conditions with various signal disturbing sources. Due to the nature of Bluetooth mesh network, communication between Bluetooth devices can be relayed to extend end-to-end communication range. Meanwhile, we still recommend the distance between Bluetooth units to be around 5m to 6m to ensure network reliability with good user experience.

4

For Bluetooth products, we highly recommend to calibrate device real time every 6 to 12 months by simply accessing to the app and connecting to the Bluetooth network. The main purpose is to eliminate accumulating time deviation error and make sure that all time-related functions to work well.

5 |

The maximum number of Hytronik Bluetooth devices per network should not exceed 100 units, while the number of networks does not have to be considered. Meanwhile, we have a few tips to enhance the network's performance and efficiency:

- Try to use as much dedicated light sensor as possible to reduce data transmission.

 In case of external daylight sensor is required, we suggest to be less than 20 external daylight sensors within one network.

 Try to disable the relay feature of some nodes. However, please kindly take note that in real application, it depends on the distance between Bluetooth nodes to determine how many pieces of relay nodes are needed for the space.

Kind Reminder: Please always make sure that field testings are conducted before applying to mass installations, this is to make sure that the performance of the Bluetooth products are tested ok on-site, otherwise if the installation environment is not friendly to Bluetooth, then the product may not work normally on the project site.



RF Sensors – Precautions for Product Installation and Operation

This is a combination of motion sensor and RF radio wave wireless transmission, meaning that the motion detected by one sensor (master unit) can pass on to other pre-defined sensor units (slave unit) through RF signal transmission.



3

When using motion sensor with RF transmission, please pay attention that the RF signal could be affected by metal and wireless devices such as GSM mobile antenna, strong Wi-Fi signal, ultra-high-voltage cables which emit frequent electromagnetic wave radiation, which in turn interferes with the RF transmission and communication. Hence, it is highly recommended to conduct a field test and check the application environment before mass installation.

2

When installing luminaires with RF microwave motion sensor fitted, avoid installing two neighbouring luminaires too close to each other as microwave and RF can affect each other, resulting in false triggering, failed RF signal transmission and reception, and sensors failing to switch off properly. Thus, we recommend the mounting distance between RF microwave motion sensors to be at least 4m to 6m.

When installing large number of RF motion sensors in a complex environment with metals, wireless device such as Wi-Fi router and other types of obstacles such as concrete walls (e.g. in a large warehouse with over hundreds of luminaires installed), it is highly recommended to install more slave units to improve RF signal transmission efficiency for better user experience.

Kind Reminder: Please always make sure that field testings are conducted before applying to mass installations, this is to make sure that the performance of the RF 433/868MHz are tested ok on-site, otherwise if the installation environment is not friendly to RF 433/868MHz, then the sensor may not work normally on the project site.



4m for Low Bay: HC028V/RF, HC018V/RF, HC023RF, HC024RF, SAM8, SAM11

6m for High Bay: HMW38/RF, HMW39/RF, HIM38/RF, HIM39/RF

Precautions for Photodiode/Photocell Usages



The lux reading from Hytronik's products are based on the surrounding lux value around the physical location of the product, rather than the lux value on the floor/ground. In real applications, user's experience is based on the floor/ground, therefore user needs to adjust the lux setting parameters according to the real installation environment in order to avoid lux setting parameters not operating as expectation.

Please note that the photodiode/photocell operation is affected by localised environmental conditions to the device (typ. within 2 to 3m), including reflected light, furnishing and floor coverings, wall and surface colours etc.

2

Season and weather: In different seasons and different weathers, the location of sun and the spectrum of sun element are also different. As a result, the direct light element that goes to photodiode/photocell will be different, which could cause differences to the user experience.

3

In daylight harvesting applications, user needs to place the photodiode/photocell on a "moderate location" – it cannot be too close to the fixture (this is to prevent very strong feedback from fixture to photodiode/photocell when dimming), nor too far from the fixture (this is to prevent very weak feedback from fixture to photodiode/photocell when dimming). There is no standard answer as to "how far" would be most moderate, because it is highly associated with different fixture wattage power, different fixture structure design, and different reflections from ambient environment (typically reflected from floor/ground, window & wall etc, and the smoothness of the surface, color, reflection distance, and reflection angle will all make some differences). So, this has to be evaluated case by case.

4

Any dimming or lux switching applications must be fully completed and furnished where necessary before target lighting levels can be set. If the area is incomplete or unfurnished, the product or system will be demonstrated to be capable of dimming and/or lux switching, but additional attendance may be needed in order to set desired lighting levels.

Kind Reminder: Please always make sure that field testings are conducted before applying to mass installations, this is to make sure that the performance of the photodiode/photocell are tested ok on-site, otherwise if the installation environment is not friendly to photodiode/photocell, then the sensor may not work normally on the project site.



Appendix (g): Precautions for Using Emergency LiFePO4 Batteries

Precautions for Using Emergency LiFePO4 Batteries



For LiFePO4 battery (BPC81 and BPC82) used for emergency lighting control gear:

- Please kindly note that the optimal storage temperature should be 22°C to28°C.

- The relative humidity (RH) for battery storage should be 45% to 85%.

- Keep the battery wires unconnected if the battery is intended to be stored for more than 3 months.

- The maximum battery cycles under 55°C should not exceed 80 times.

- Please kindly charge battery for 24 hours before using.

- Do not short-circuit the battery pack.

2

Season and weather: In different seasons and different weathers, the location of sun and the spectrum of sun element are also different. As a result, the direct light element that goes to photodiode/photocell will be different, which could cause differences to the user experience.

3

In daylight harvesting applications, user needs to place the photodiode/photocell on a "moderate location" – it cannot be too close to the fixture (this is to prevent very strong feedback from fixture to photodiode/photocell when dimming), nor too far from the fixture (this is to prevent very weak feedback from fixture to photodiode/photocell when dimming). There is no standard answer as to "how far" would be most moderate, because it is highly associated with different fixture wattage power, different fixture structure design, and different reflections from ambient environment (typically reflected from floor/ground, window & wall etc, and the smoothness of the surface, color, reflection distance, and reflection angle will all make some differences). So, this has to be evaluated case by case.

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Kind Reminder: Please always make sure that field testings are conducted before applying to mass installations, this is to make sure that the performance of the photodiode/photocell are tested ok on-site, otherwise if the installation environment is not friendly to photodiode/photocell, then the sensor may not work normally on the project site.



Approvals >>>



Hytronik products are designed to international safety and performance standards as applicable and are manufactured in our ISO9001 factor to our own stringent requirements.

It is our policy to seek 3rd party certification with a recognised international body on our standard product range so you can supply with confidence.

5-Year Warranty



All Hytronik products are supplied with a 5-year warranty against defect in design or manufacture. The warranty applies to all electronic control gears supplied by Hytronik and is applicable to the party to which the sale was made. The warranty is not transferable to a 3rd party and compatibility with external components are the responsibility of the finished goods manufacturer.

With today's multi-national sourcing strategies, we offer an unrivalled universal warranty with support available in regions where Hytronik has its own office or authorized representation, regardless of where the Hytronik product was purchased. Furthermore, we operate a 24-hour response policy to any claim.

The full warranty policy is available upon request or from our website.



SENSORS & LIGHTING CONTROL



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