

# **PRODUCT CATALOG**







**HDL** Automation

Website www.hdlautomation.com

HDL Automation co.,Ltd.



### **CATALOG**

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Battery Energy Storage System (The First Generation)

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### Who we are?

**HDL Automation**, established in 1985, is a leading international technology company specializing in smart home, smart building, smart hotel and total energy solutions. With a strong commitment to the market, we strive to deliver comprehensive automation control systems and integrated solutions for homes and buildings.

At HDL Automation, our core product portfolio encompasses a wide range of cutting-edge technologies. From smart lighting and smart shading to climate control, energy management, security monitoring, and audio-video entertainment, our solutions are designed to enhance comfort, convenience, and security.

With an extensive track record, our automation solutions have been successfully deployed in over 500,000 prestigious projects worldwide. We have large number of iconic project references, such as Dubai International Airport, NATO Headquarters Building, Australia Banc Apartment, Macau Morpheus Hotel, and the Czech State Opera.

By leveraging our expertise and innovative technologies, HDL Automation continues to lead the industry, providing seamless automation experiences that transform living and working spaces.

Since 1985, Your Reliable Partner



### **Brand History**



### 1985

HDL was established, committing itself to R&D and application of lighting control products.

### 2004

HDL was the first to introduce a range of smart home products, known as the Shiqi series.

### 2017

HDL test center was authorized by the KNX organization as the 16th certified KNX test center in the world. It is also one of only two test centers in mainland China.



### 1990

HDL introduced China's first semi-digital dimmer cabinet--the Hedong Xiongfeng Dimmer Cabinet--which was successfully applied in the Great Hall of the People in Beijing.

### 2015

HDL was among the earliest enterprises to introduce a set of wireless smart home products in the domestic market. It was also the first enterprise to apply both wire and wireless distributed system into the projects.

HDL built a comprehensive partnership ecosystem and launched the HDL LINK protocol, thereby realizing the interconnection of the three HDL systems (Buspro, Buspro Wireless and KNX).

**Company Qualification** 





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### **Multiple System Certifications**

### ISO10012

general requirements for measurement management systems

### ISO17025

testing and calibration laboratory capabilities

### ISO14001

ISO45001

environmental management systems

occupational health and safety management systems.

quality management systems

04

ISO9001

# **Manufacturing Advantages**

## 100,000

- Class 100,000 clean room
- 60% of suppliers cooperate for more than 10 years

## 100%

- 100% of workers are trained and certified
- All manufacturing sections are set up with full inspection position, and all semi-finished and finished products are subject to functional testing through production testing software

## 500w

Annual Production Capacity(PC)
 2.5 million in SMT line, 5 million in DIP line, 2.5 million in semi-finished product inspection

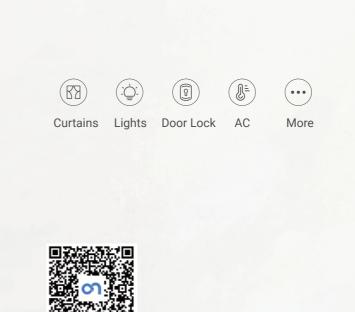




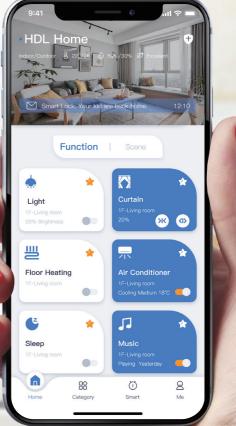
### On Pro

On Pro is a mobile app designed for smart home systems that enable users to control all the connect ed devices in the house, such as lighting, shading, HVAC, security, etc.

Scene and Automation functions can be defined by end users effortlessly on On Pro app.



Scan to download On Pro



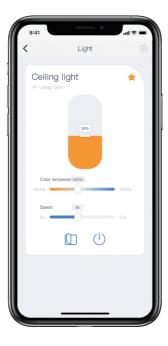
### **Intuitive user interface**

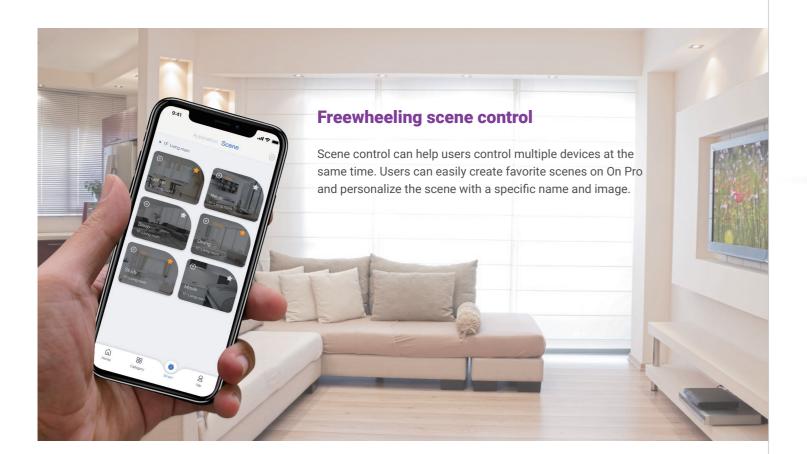
With flat and quasi-physical design, the interface is vivid and easy to understand. For example, users can directly slide the icons to control the brightness of lights, the position of curtains and temperature of AC, etc.











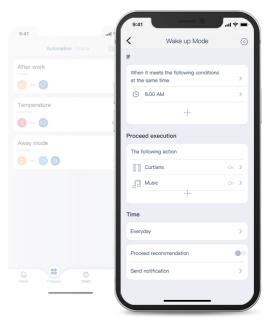
### **Set the logic of automatic control**

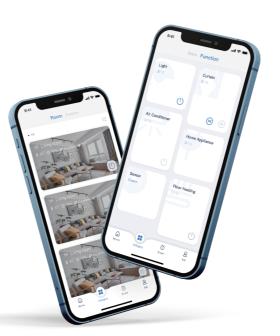
Whether time, scene, location, or function, all can be the condition that triggers the task. Set up the automation scene you like in advance, such as Get up Mode. At 8:00 a.m., the shutter will turn on automatically, and the soft background music rings out. Let the sunshine gently wake you up.

Get up Mode:







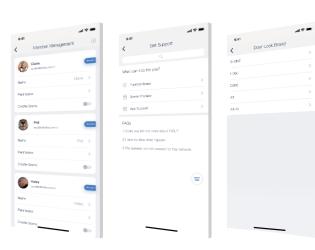


### **Control various devices intuitively**

On Pro enables the control of over ten types of devices, which are categorized into room and function. Each function area is designed like a card for more intuitive and direct control.

### **Share your smart home**

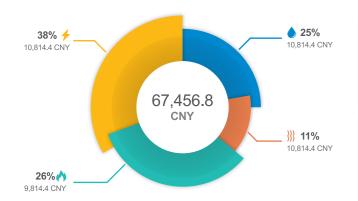
On Pro allows homeowners to invite their family members and friends by adding their accounts. After that, homeowners are free to share the permissions of controlling the space and devices with the new member.

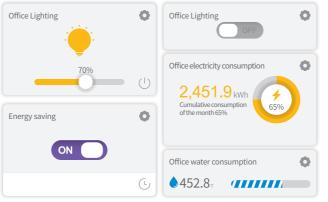


### **HDL GraView Platform**

GraView is a web-based building management platform designed by HDL specifically for public building projects. The interface is simple and avoids redundant learning and operation steps. It can centrally control various devices in different areas, optimize building performance, and improve management efficiency.









### **Intuitive operation interface**

The design of GraView is modular and concise. The navigation bar is classified, All components in the selected area are automatically arranged, and the equipment status, scene, and energy consumption are at a glance.



The platform displays the device's on, off, and fault status in real time, and can set device life reminders. When there are abnormal conditions such as device failure, disconnection, and control failure, it will simultaneously send alerts to the admin to reduce inefficiencies caused by information gaps.





### Clear picture of the electricity consumption

With HDL energy management solution, users can view real-time electricity usage by area and facility on GraView. The graphical visualization provides a clear view of the electricity consumption.

### Statistical analysis of energy efficiency

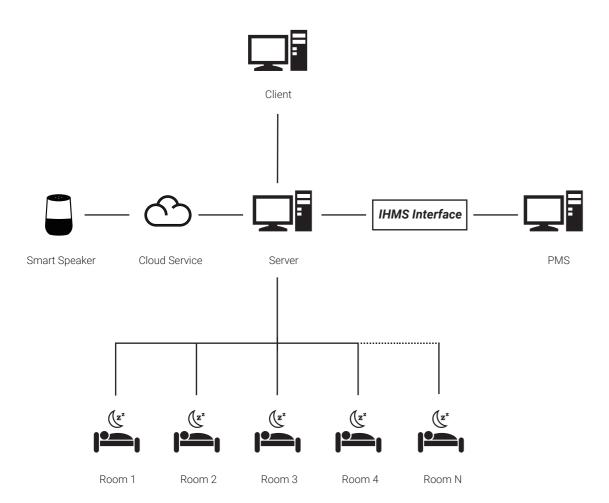
HDL GraView is able to monitor the operation status of energy consumption in a multidimensional and comprehensive way and analyze the dynamics of energy consumption in detail, so as to efficiently control and optimize the status of equipment management.



### HDL Intelligent Hotel Management System

HDL Intelligent Hotel Management System (IHMS) works with HDL's smart hotel system. It enables the hotel to manage its guest rooms, room cards and services on a desktop computer, while allowing guest to control room devices via a wall panel, mobile app or smart speaker.

IHMS consists of the local server, cloud server, client, room cards management tool and APIs.



Topology of HDL Intelligent Hotel Management System

### Server.

It syncs and updates the data of all connected clients.



### Client.

It has a user-friendly interface. Hotel staff can view the room status and proceed service requests.

### **Cloud Service.**

When the cloud service is enabled, hotel guest can control curtains, lights, HVAC and other devices via a mobile app or smart speaker.

### It can integrate with PMS via its API.



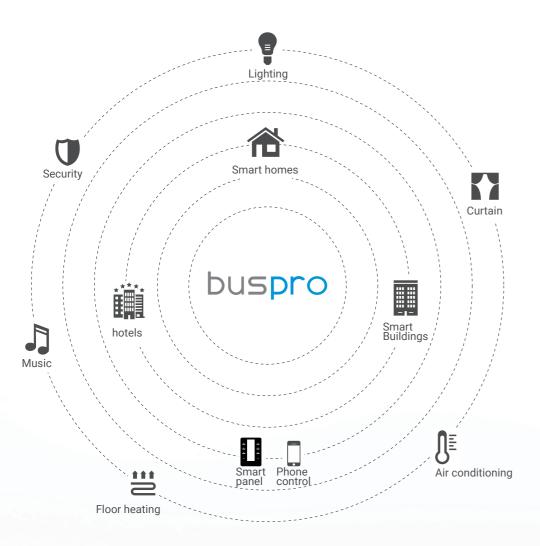


### buspro

### A powerful and flexible wired control system

Buspro is an intelligent control system independently developed by HDL, which consists of a backbone network with Ethernet connection and a bi-direction bus network with HDL Buspro cables. It can be connected to common devices and allow users to control the devices through wall panels, mobile phones, tablet computers and other terminals, and can also be integrated with other intelligent control systems through protocol docking.

The system functions of Buspro cover lighting, shading, air conditioning, floor heating, home entertainment, safety and security, etc. Suitable for residential, office buildings, urban complexes, large venues, hotels, and other commercial buildings, you can determine the functions and scale of the system according to your own needs.



### **Advantages**

### Highly Flexible

Buspro is a distributed system in which each functional modul can share data while remaining relatively independent from each other, so that it is possible to design a customized solution according to the user's needs, and easy to seamlessly connect with other control systems.

### Easy Maintenance

As the device information is separately stored in the machine, the entire control system will not be paralyzed if there is a failure of a certain device in the system. Therefore, you can save maintenance costs and increase return on investment.

### **Wider Application**

With modules specifically tailored to meet the demands of each market, and an inherent flexibility and customizability, Buspro can be widely used in the commercial, hospitality, and residential sectors.







### Source 7



Souce is a smart panel that enable to effortless control lighting, scenes, shading, HVAC and music. It adopts 7-inch LCD screen, equipped with HD camera for indoor communication and stepless knob, built-in Proximity Sensor, Temperature&humidity Sensor and LUX Sensor. The panel supports multi-gateway cross-drive control.

Dimension

219.2×102×25.6mm (without power interface) 219.2×102×54.8mm (with power interface)

Housing material: PC Installation: Wall box

Protection Type(Conform to EN 60529): IP20

Color: • Pine green • Mountain blue • Ink black

### **Features and Specifications**

- Stepless knob assures accruate positioning
- Enabling indoor communication between different rooms
- Capable of working as a gateway
- Available in Buspro, KNX, Buspro wireless, WiFi and RJ45



### Source-Buspro Power Interface

- Power supply for Source 7
- 2CH relay output
- Network connection through communication interface
- •Compatible with Buspro &Zigbee gateway functions









### **Granite Display**

Granite Display is a high-end and multi-function control panel for home automation. With 4-inch LCD screen and full-screen touch control, it is convenient for the users to control lighting, curtain, scene, air conditioning, floor heating, music and fresh air in an intuitive way.

Working voltage: 12~30V DC Working current: 120mA/24V DC Installation: Wall box

Color: • Space Gray

### **Features and Specifications**

- Built-in temperature and humidity sensor, proximity sensor;
- Support screen lock;
- Adjustable LCD backlight brightness;
- LCD screen wakes up automatically;
- Support sleep mode;
- Support online upgrade.











Granite 4.3"

Granite 4.3" is a multi-function control panel with 4.3-inch LCD screen and full-screen touch control. There are dedicated pages for lighting, curtain, scene, air conditioning, floor heating, music and fresh air. And users can also quickly access the most frequently used functionality or scenes by the short-cut buttons on the home screen.

Working voltage: 12~30V DC Working current: 120mA/24V DC Installation: Wall box

Color: Space Gray

### **Features and Specifications**

 Built-in temperature and humidity sensor, proximity sensor;

MPL43C.46

- Support screen lock;
- Adjustable LCD backlight brightness;
- LCD screen wakes up automatically;
- Support sleep mode;
- Portrait mode and landscape mode supported.



Granite

Granite is a series of multi-functional push-button panels with aluminum plate for home automation, used to control lighting, curtain and scene. It is available to two sizes, EU size with 4 buttons and US size with 6

buttons.

Working voltage: 12~30V DC Working current: 13mA/24V DC Installation: Wall box

Color: • Space Gray

MP4C.48

### **Features and Specifications**

- Built-in temperature probe, can automatically obtain the temperature information;
- Support LED backlight and indicator;
- · Adjustable color and brightness of LCD backlight;
- Customizable icon;
- Combination button mutual exclusion function is available;
- Support HDL Buspro online upgrades











### **Enviro**

Enviro Touch Screen is a high-end and multi-function control panel for home automation. With 4.3-inch color capacitive LCD screen and touch control, it is convenient for the users to control lighting, scene, curtain, music, air conditioning, floor heating and others in an intuitive way.

Working voltage: 12~30V DC
Working current: 85mA/24V DC
Installation: Wall box

Color: ● Black ○ White

### **Features and Specifications**

- Built-in temperature sensor and proximity sensor;
- Built-in IR receiver and real-time clock;
- Adjustable LCD backlight;
- LCD screen wakes up automatically.;
- Customizable UI;
- Support online upgrade;



### **Tile Display**

Tile Display is a multi-function control panel for home automation. With 3.5-inch LCD screen and full-screen touch control, it is convenient for the users to control lighting, curtain, scene, air conditioning, floor heating, music and fresh air in an intuitive way. Tile Display can be combined with other panels in the Tile series for more functionality but with a consistent look.

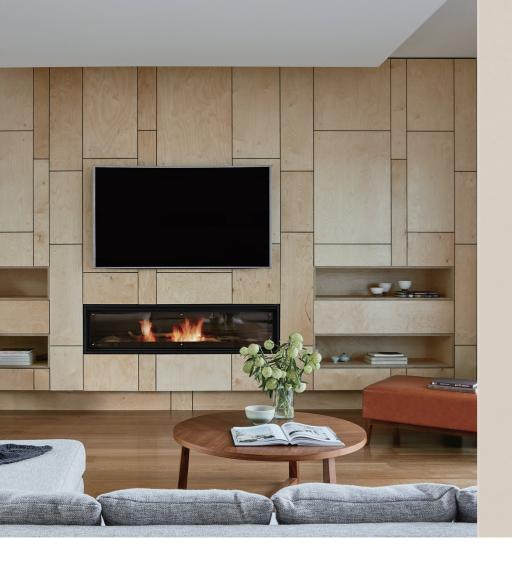
Working voltage: 12~30V DC Working current: 100mA/24V DC Installation: Wall box

Color: Plastic: O Ivory White Ash Gray

Metal: Champagne Gold Space Gray

### **Features and Specifications**

- Built-in temperature, humidity sensor and proximity sensor;
- Adjustable LCD screen backlight brightness;
- Support screen lock;
- LCD screen wakes up automatically;
- Support sleep mode;
- Support online upgrade;





Built-in temperature and proximity

Icons and text support laser labelling;

Maximum sensing distance: 15cm;

Support online upgrade;

Support easy programming.









### **Tile Series Push-button Panel**

Tile Series Push-button Panel contains 1/2/4-button panels, both plastic and metal versions. The mechanical structure of the keys is upgraded to give you firmer push feedback while being quieter. Tile Series Push-button Panels are all-round panels for whole-home automation control, enabling controls of lighting, curtains, scenes, music, etc.

#### **Features and Specifications**

- Adjustable RGB icon backlight;
- Customizable button icons;
- Button lock function;
- Working voltage: 12~30V DC.









### **Tile Series Climate Panel (Thermostat)**

Tile Series Climate Panel is divided into a segment code LCD screen and four pushbuttons. It can offer comprehensive monitoring of environment measurements and enable controls of air conditioning, floor heating and ventilation system. There are different pages for air conditioning, floor heating and ventilation system, and each can be

#### **Features and Specifications**

- Adjustable brightness of LCD screen and RGB icon backlight;
- Support parental controls;
- · Adjustable RGB icon backlight;
- Working voltage: 12~30V DC.













used to control 1 channel.







Tile Series Card Holder Panel, USB2.0 and Type-C Socket, Dual USB Charger Wall Outlet, EU Socket, **Dry Contact Push Switch and Emergency Button Panels** 

### Tile

functionalities.



#### **Features and Specifications** Tile is a series of smart control panels in EU

standard. You can use just one unit if it meets your requirement, or combine multiple units to serve more functionalities in a specific area, but only metal panels are available to install multiple units in a vertical direction. It is able to keep the walls in a consistent and beautiful look while meeting various requirements of

Metal: • Champagne Gold • Space Gray









# U 22°C ♠ MEDIUM ... COOL ❖ TITTE®

### DLP

DLP is a series of smart control panels with physical buttons and mono-color LCD display for home automation both in EU and US standard. With 8 control buttons and 2 page buttons, the panel has 4 general pages for lighting, curtains, etc. and dedicated pages for AC, floor heating and background music.

Working voltage: 12~30V DC
Working current: 30mA/24V DC
Installation: Wall box

Color: ● Black ○ White

#### **Features and Specifications**

- Built-in temperature sensor;
- Icon for Key Buttons can be changed;
- Support 147 languages;
- Customizable icons or captions;
   Support online upgrade.



### **DLP Touch**

DLP Touch is designed to offer you a quick and simple touch-control experience. With the mono-color LCD in the middle, you can have the icons or text customized. It has 8 control buttons, 2 page buttons and 4 shortcut buttons, which is convenient for users to control lights, curtains, AC, floor heating, background music, etc.

Working voltage: 12~30V DC
Working current: 45mA/24V DC
Installation: Wall box

Color: ● Black ○ White

### **Features and Specifications**

- Built-in temperature sensor and proximity sensor;
- Customizable icons and captions;
- RGB button indicator and voice prompt are available;
- Adjustable LCD backlight;
- LCD screen wakes up automatically;
- Support online upgrade.





### iElegance Series 3S Smart Door Bell

HDL-MPB03.48

iElegance Series 3S Smart Door Bell is the matching product of HDL Hotel Room Management System. Installed by the door of the hotel room, the panel can be controlled by button panel or other matching devices in order to show the user's requirements. It can indicate DND status, ask for room-cleaning and used as doorbell, etc.

#### **Features and Specifications**

- Door Bell function, if DND is ON, it will be OFF;
- DND display: Do not Disturb;
- · Ask for room-cleaning service;
- Backlight brightness is adjustable;
- Communication: HDL Buspro.

# HDL

### iTouch

A series of multi-functional touch control panels for home automation both in EU and US standard. The US standard has 2, 4 and 6 buttons while EU standard has only 2 and 4 buttons. iTouch is enclosed by a fine aluminum frame, and always used to control lighting, curtain, AC, scene, music, etc.

Working voltage: 12~30V DC Working current: 20mA/24V DC Installation: Wall box

Color: ● Black ○ White

#### **Features and Specifications**

HDL

- Touch button with RGB backlight;
- Adjustable RGB indicator color and brightness;
- Customizable button icons;
- Support online upgrade.



### **Intelligent Hotel Door Bell**

HDL-MHB.1010

It is a door bell touch panel which is installed outside the room by the door. Through the control panel or other devices, it can display customer's requirements, for example, Please Wait, Clean Room, or DND, etc.

### **Features and Specifications**

- Room number display. Information display (Please Wait, Need Cleaning, DND, etc.) in different colors;
- Support HDL Buspro online update.



### **RF Intelligent Door Bell and Access Reader**

HDL-MHBRF.1010

It is a door bell touch panel which is installed outside the room by the door. It can control the panel to indicate your requirements via the door bell panel, such as Laundry, DND and Clean Room.

#### **Features and Specifications**

- Show room numbers, indicate the information of Laundry, DND and Clean Room;
- With 2 dry contacts;
- Open the Door by RF card & history record function;
- Support HDL Buspro online update.



### **RF Intelligent Door Bell**

HDL-MPTB01RF.48

It is a doorbell product with touch panel, which is the matching product of HDL control system. It is installed by the hotel room door and has the functions of doorbell and unlocking through swiping RF card.

### **Features and Specifications**

- Optional backlight RGB colors;
- Display requirement of cleaning room;
- 1-99 targets can be controlled when user touch the door bell;
- 1-49 targets can be controlled when user swipe the card;
- The touch sensitivity can be adjusted;
- Support upgrade from HDL Buspro.



### **RF Card Reader & Master Control**

HDL-MHIC.48

It is designed to control the master card energy gaining and hotel guest room facility using. It has built-in MIFARE RF card reader and can recognize different types of card, including guest card, waiter card, cleaner card, mender card and administrator card.

#### **Features and Specifications**

- Support master card energy gaining & power management;
- Support ID recognition, scene control in accordance with various types of card;
- · Supported card types: Guest card, waiter card, cleaner card, mender card and administrator card;
- Support HDL Buspro online update



### **RF Card Reader & Master Control US/EU**

HDL-MPTC03.46/48

It is for energy control and room information of hotel guest room. It has built-in MIFARE RF card reader. Guest card, service card, cleaner card, etc. can be recognized by this panel, and it includes 3 touch buttons also. Customer can select US or EU standard panel according to their requirements.



#### **Features and Specifications**

- Master card for energy & power management;
- 3 touch buttons, sensitivity can be adjusted;
- Button color RGB can be adjusted;
- The touch button can be used as the panel button, or work with HDL touch door bell panel, can be displayed DND, Clean, Wait.
- Support HDL Buspro online update.





### **Panel Power Interface EU**

HDL-MPLPI.48-A

Provide DC power and communicates with panel switch, and supports different EU types of panels and sensors.

- Working voltage is 12~30V DC;
- HDL Buspro interface supported (CAT5E or dedicated HDL Buspro cable required);
- The panel power interface should be installed on the wall box.





#### **Panel Power Interface US**

HDL-MPLPI.46-A

Provide DC power and communicates with panel switch, and supports different US types of panels and sensors.

- Working voltage is 12~30V DC;
- HDL Buspro interface supported (CAT5E or dedicated HDL Buspro cable required);
- The panel power interface should be installed on the wall box.





#### **Tile Series Power Interface**

HDL-MPPI / TILE.48

It works in conjunction with Buspro Tile Series panels and provides working voltage and communication signals to the panel.

- Working voltage is 12~30V DC;
- The panel power interface should be installed on the wall box.





### Power Interface-With 2CH 10A Relay

HDL-MPR0210/TILE.48

It is a standard panel power interface with relay channels. The power interface has an independent device ID address, including 10A relay channels.

- Working voltage is 15~30V DC, working current is 24mA/24V DC;
- With independent programming button and programming indicator;
- Short press the programming button to realize all relay channels on/off;
- Provide power and communication interface for HDL Tile series panel.





### **Power Interface-With 2CH 10A Relay**

HDL-MPR0210-S.40

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It is a standard panel power interface with relay channels. The power interface has an independent device ID address, including 10A relay channels.

- Working voltage is 15~30V DC, working current is 24mA/24V DC;
- With independent programming button and programming indicator;
- Short press the programming button to realize all relay channels on/off;
- Provide power and communication interface for HDL standard panel.





### Power Interface-With 3CH 10A Relay

HDL-MPR0310-S.40

It is a standard panel power interface with relay channels. The power interface has an independent device ID address, including 10A relay channels.

- Working voltage is 15~30V DC, working current is 24mA/24V DC;
- With independent programming button and programming indicator;
- Short press the programming button to realize all relay channels on/off;
- Provide power and communication interface for HDL standard panel.





### Power Interface-With 2CH 10A Relay

HDL-MPR0310/TILE.48

It is a standard panel power interface with relay channels. The power interface has an independent device ID address, including 10A relay channels.

- Working voltage is 15~30V DC, working current is 24mA/24V DC;
- With independent programming button and programming indicator;
- Short press the programming button to realize all relay channels on/off;
- Provide power and communication interface for HDL Tile series panel.

### **GATEWAYS** / **DRY CONTACT MODULES**







### **Buspro Gateway**

Linux system hardware platform. It Real-time update of device status and device supports HDL Buspro Setup Tool, ON+, Cloud server, etc., integrating • The server application automatically prompts scene, logic, security, clock, server

for upgrade; • Supported protocol: http \ tcp \ udp \ mqtt;

**Features and Specifications** 

HDL-MGWIP.430

Support intranet communication, remote access;

• System detection, device status report;

 Support backup upload and download of APP, Cloud, debugging software;

• Drive management of third-party products;

• Data backup and data recovery function.

other functions.

Ethernet RS485

It is a product designed based on

automatic prompt upgrade and

Communication protocol: HDL Buspro

Installation: 35mm DIN rail installation

Working voltage: 15~30V DC Working current: 70mA/24V DC





### 1 Port Programming Gateway

HDL-MBUS01IP.431

It enables bidirectional data exchange between HDL Buspro and Ethernet.

- Support local control (default), p2p control, and remote control;
- Up to 4 devices (iPad, iPhone, Touchlife, HDL Buspro Setup Tool, etc.) connection supported for remote control;
- Smart data exchange for reducing data traffic;
- Communication: HDL Buspro, IP network;
- Working voltage: 12~30V DC;Working current: 40mA/24V DC.



### **Buspro-RS485 Interface Mini**

HDL-M485/GW.40

It enables the bidirectional communication between the RS485 interface device and the Buspro device.

- Working voltage is 15~30V DC, working current is 24mA/24V DC;
- With independent programming button and programming indicator;
- Short press the programming button to realize all relay channels on/off;
- Provide power and communication interface for HDL Tile series panel.



### **Buspro Gateway(Home Kit Version)**

HDL-MGWIP.430

It is a product designed based on Linux system hardware platform. It supports HDL Buspro Setup Tool, ON+, Cloud server, etc., integrating scene, logic, security, clock, server automatic prompt upgrade and other functions.

With Apple HomeKit, it supports the following functions currently: switch, dimming, CCT, RGB, curtain motor, curtain panel (Apple only support open and close).

Working voltage: 15~30V DC

Working current: 70mA/24V DC

Communication protocol: HDL Buspro

Ethernet RS485

Installation: 35mm DIN rail installation

#### Features and Specifications

- Real-time update of device status and device control:
- The server application automatically prompts for upgrade;
- Supported protocol: http \ tcp \ udp \ mqtt;
   Support intranet communication, remote access;
- $\bullet \quad \hbox{System detection, device status report};\\$
- Support backup upload and download of APP, Cloud, debugging software;
- Drive management of third-party products;
- Data backup and data recovery function.



### RS232/RS485 Gateway

HDL-MRS232U.431

This device enables the two-way communication between RS485/RS232 interface devices and Buspro system devices.

- Input command number up to 99, ASCII code number contained in each command up to 33;
- Working voltage: 15~30V DC;
- Working current: 15mA/24V DC;
- There are standard version and special version, and the special version supports clock function.



### **HDL-BUS and KNX-EIB Interface Converter**

HDL-MCEIB.231

It is a gateway between HDL Buspro and KNX/EIB, 2-way Bridge Converter, to give full 2-way communication and make HDL Buspro as Family Member within the KNX Environment.

- Various data point format supported;
- Controls up to 254 targets;
- HDL Buspro working voltage: 15~30V DC;
- HDL Buspro working current: 5mA/24V DC;
- KNX/EIB working voltage: 21~30V DC;
- KNX/EIB working current: 6mA/30V DC.

### **Controllers / Actuators**

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### 24-Zone Dry Contact Module

HDL-MS24.232

It is a sensor signal input module, which supports up to 24 dry contact inputs.

- Both mechanical switches and combination switches can set 49 control targets;
- Security function should be used in conjunction with the security module;
- Working voltage: 12~30V DC;
- Working current: 12mA/24V DC.



### 8-Zone Dry Contact Module

HDL-MSD08A.40

It supports 8-channel dry contact input with vandal-proof function.

- Supported switch mode: Switch mode, Dimup/down, Dim up or Dim down;
- Vandal-proof (One parallel contacted 1kQ resister required);
- Security function (Security module required);
- Working voltage: 12~30V DC;
- Working current: 15mA/24V DC.



### **4-Zone Dry Contact Module with Temp. Sensor**

HDL-MSD04TA.40

It has 4 input channels and 4 output channels. Input signal supports dry contact, temperature signal and dry contact status display via LED indicators.

- 4-channel dry contact input with vandal proof;
- Supported switch mode: Switch mode, Dim up/down,
   Dim up or Dim down;
- Security function (Security module required);
- Temperature alarm: when the temperature exceeds preset range/value, alarm will be triggered;
- Working voltage: 12~30V DC;
- Working current: 10mA/24V DC.





### **Home Control Unit**



It supports the functions of gateway, mix controller, dry contact, and LED output.

Working voltage: 20~30V DC; Working current: 300mA/24V DC; Input voltage: AC100~240V, 50/60Hz; RJ45 interface: UDP/IP network interface; TRIAC: 16A TRIAC, minimum load is 30W; Relay output: 5A/10A.

### **Features and Specifications**

- · 22 channel outputs;
- 24-channel dry contact inputs;
- 11-channel switch indicator outputs;

HDL-MRCU.433

- 1CH external RS485 Bus data receiving and sending, internally converted into HDL Buspro protocol commands;
- · Local connection control or remote connection configuration;
- HDL Buspro and RJ45 communication interface.



### 3CH 10A Flush-mounted Switching Actuator

HDL-MPR0310.40

It is a smart relay executive module installed in the wall box of the Chinese standard panel. In conjunction with the corresponding dry contact panel, the actuator enables smart control of electrical devices.

- With three 10A TV8 relay control channels;
- With 7 dry contact switch signal input channels, 7 LED switch signal output channels;
- With programming button and programming indicator;

• Working voltage: 15~28V DC; • Working current: 96mA/24V DC.



### 1CH 16A Flush-mounted Switching Actuator (EU)

HDL-MPR0116-E.40

It is a smart relay executive module installed in the wall box of the European standard panel. In conjunction with the corresponding dry contact panel, the actuator enables smart control of electrical devices.

- With one 16A relay control channel;
- With 4 dry contact switch signal input channels, 4 LED switch signal output channels;
- · With programming button and programming indicator;

• Working voltage: 15~28V DC; • Working current: 95mA/24V DC.



### 2CH 10A Flush-mounted Switching Actuator (EU)

HDL-MPR0210-E.40

It is a smart relay executive module installed in the wall box of the European standard panel. In conjunction with the corresponding dry contact panel, the actuator enables smart control of electrical devices.

- With two 10A relay control channel(s);
- With 4 dry contact switch signal input channels, 4 LED switch signal output channels;
- With programming button and programming indicator;

• Working voltage: 15~28V DC; • Working current: 65mA/24V DC.

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### **4CH 10A High Power Switch Actuator**

HDL-MR0410.431

The actuator has 4 channels (10A for each channel) and 16A magnetic latching relay.

- Up to 4 separate zones;
- 8 scenes for each zone, scene running time up to 60 minutes;
- 2 sequences for each zone, up to 4 steps for each sequence;
- Light protection delay, 0-25s of bulk power-on time and manual switch for each channel;
- Working voltage: 15~30V DC;
- Working current: 40mA/24V DC;
- Input voltage: 20V/240V AC (50/60Hz).



### **8CH 10A High Power Switch Actuator**

HDL-MR0810.432

The actuator has 8 channels (10A for each channel) and 16A magnetic latching relay.

- Up to 8 separate zones;
- 16 scenes for each zone, scene running time up to 60 minutes;
- 2 sequences for each zone, up to 8 steps for each sequence;
- Light protection delay, 0-25s of bulk power-on time and manual switch for each channel;
- Working voltage: 15~30V DC;
- Working current: 40mA/24V DC;
- Input voltage: 20V/240V AC (50/60Hz).



#### 12CH 10A High Power Switch Actuator

HDL-MR1210.433

The actuator has 12 channels (10A for each channel) and 16A magnetic latching relay.

- Up to 12 separate zones;
- 24 scenes for each zone, scene running time up to 60 minutes;
- 2 sequences for each zone, up to 12 steps for each sequence;
- Light protection delay, 0-25s of bulk power-on time and manual switch for each channel;
- Working voltage: 15~30V DC;
- Working current: 40mA/24V DC;
- Input voltage: 20V/240V AC (50/60Hz).



### **16CH 10A High Power Switch Actuator**

HDL-MR1610.433

The actuator has 16 channels (10A for each channel) and 16A magnetic latching relay.

- Up to 16 separate zones;
- 32 scenes for each zone, scene running time up to 60 minutes;
- 2 sequences for each zone, up to 16 steps for each sequence;
- Light protection delay, 0-25s of bulk power-on time and manual switch for each channel;
- Working voltage: 15~30V DC;
- Working current: 40mA/24V DC;
- Input voltage: 20V/240V AC (50/60Hz).



### 4CH 16A High Power Switch Actuator with Current Detection

HDL-MR0416C.431

The actuator has 4 channels and 50A magnetic latching relay and has manual control switches.

- Up to 4 separate zones;
- 8 scenes for each zone, scene running time up to 60 minutes;
- 2 sequences for each zone, up to 4 steps for each sequence;
- Light protection delay and mass turn-on delay for each channel; Channel current, used time of load and alarm status of each
- channel can be detected;
- Electronic life time of relay: >60000 (Resistance load)
- Working voltage: 24~30V DC;
- Input voltage: 120V/240V AC (50/60Hz)
- •



### 8CH 16A High Power Switch Actuator with Current Detection

HDL-MR0816C.232

The actuator has 8 channels and 50A magnetic latching relay and has manual control switches.

- Up to 8 separate zones;
- 16 scenes for each zone, scene running time up to 60 minutes;
- 2 sequences for each zone, up to 8 steps for each sequence;
- Light protection delay and mass turn-on delay for each channel;
- Channel current, used time of load and alarm status of each channel can be detected;
- Electronic life time of relay: >60000 (Resistance load)
- Working voltage: 24~30V DC;
- Input voltage: 120V/240V AC (50/60Hz)



### 12CH 20A High Power Switch Actuator with Current Detection

HDL-MR1220C.433

The actuator has 12 channels and 50A magnetic latching relay and has manual control switches.

- Up to 12 separate zones;
- 12 scenes for each zone, scene running time up to 60 minutes;
- 2 sequences for each zone, up to 2 steps for each sequence;
- Light protection delay and mass turn-on delay for each channel;
- Channel current, used time of load and alarm status of each channel can be detected;
- Electronic life time of relay: >60000 (Resistance load)
- Working voltage: 24~30V DC;
- Input voltage: 120V/240V AC (50/60Hz)



### 8CH 16A High Power Switch Actuator (with Dry Contact)

HDL-MR0816D.432

The actuator has 8 channels (16A for each channel) and 50A magnetic latching relay and has manual control switches.

- 4 dry contact channels;
- Up to 8 separate zones;
- Up to13 scenes for each zone, and 12 of which are available for editing;
- 2 sequences for each zone, up to 12 steps for each sequence;
- Light protection delay, mass turn-on delay and manual switch for each channel;
- Electronic life time of relay: >60000 (Resistance load);
- Working voltage: 24~30V DC;
- Working current: 40mA/24V DC.



### 4CH 16A High Power Switch Actuator (with Dry Contact)

HDL-MR0416C.431

The actuator has 4 channels (16A for each channel) and 50A magnetic latching relay and has manual control switches.

- 3 dry contact channels;
- Up to 4 separate zones;
- Up to13 scenes for each zone, and 12 of which are available for editing;
- 2 sequences for each zone, up to 12 steps for each sequence;
- Light protection delay, mass turn-on delay and manual switch for each channel;
- Electronic life time of relay: >60000 (Resistance load);
- Working voltage: 24~30V DC;
- Working current: 40mA/24V DC.



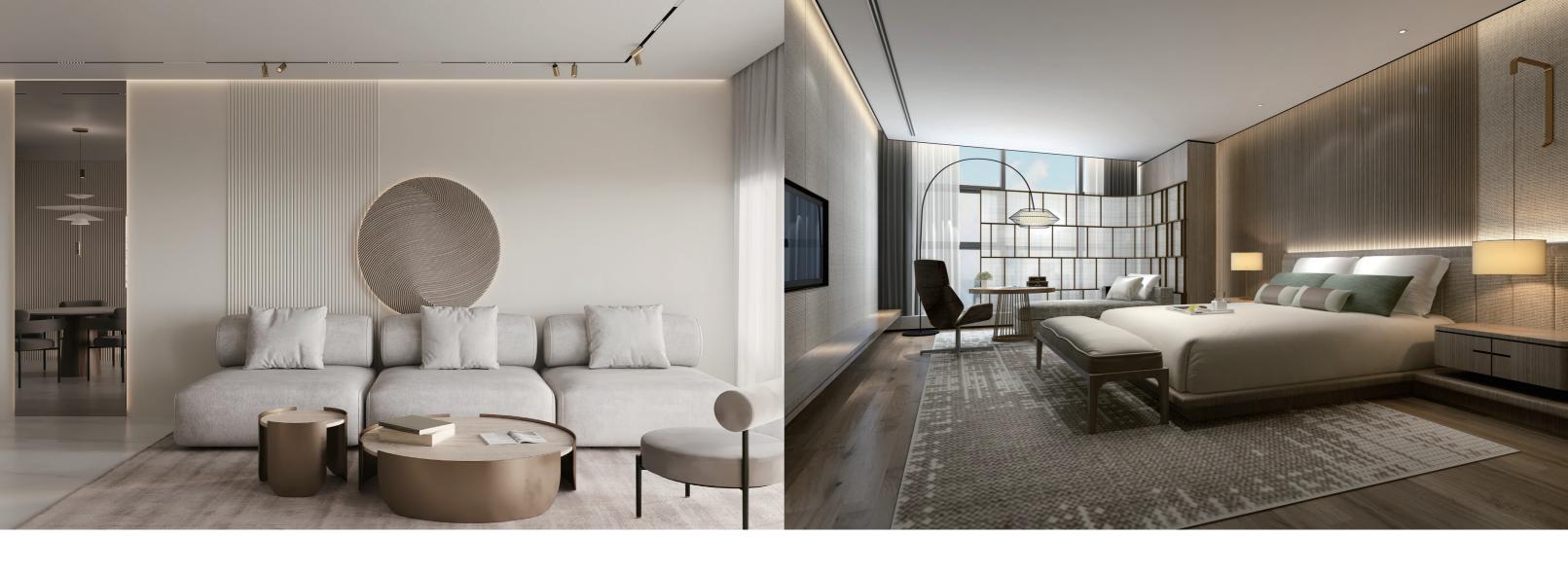
### 12CH 16A High Power Switch Actuator (with Dry Contact)

HDL-MR1216D.433

The actuator has 12 channels (16A for each channel) and 50A magnetic latching relay and has manual control switches.

- 4 dry contact channels;
- Up to 12 separate zones;
- Up to13 scenes for each zone, and 12 of which are available for editing;
- 2 sequences for each zone, up to 12 steps for each sequence;
- Light protection delay, mass turn-on delay and manual switch for each channel;
- Electronic life time of relay: >60000 (Resistance load);
- Working voltage: 24~30V DC;
- Working current: 40mA/24V DC.

MC64-DALI2.431





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### **Buspro-DALI Controller**

MDL64-BP. 53

Based on HDL Buspro and DALI protocol, it has single-loop control, area/group control, scene control, sequence control, and can realize intelligent control through APP.

Parameters: Rated voltage 24V DC

Rated current 15mA / 24V DC Input voltage 100 - 240V AC, 50/60Hz 0.1A **Features and Specifications** 

- Supports 64 DALI drives with different functions;
- Multiplexing of pre-set parameters in the driver;
- Supports dimming, color temperature and color
- Supports 16 zones/groups of settings, which can be controlled separately;
- 16 scenes can be set in each independent area, reaching a maximum of 256 scenes;
- Sequence can be set to select different areas of the scene;
- Support status feedback;
- Support bus short circuit protection;
- Support OTA upgrade.



### **DALI-2 Gateway**

With built-in DALI power supply,

DALI-2 gateway supports both HDL Buspro protocol and DALI protocol.

Parameters:

Working voltage: 15~30V DC

Working current: ≤15mA DC Input voltage: 100 - 240V AC (50/60Hz)

**Features and Specifications** 

- 20% faster data upload and download;
- 5 times greater ballast management efficiency compared to DALI gateway;
- Support color temperature control;
- Support the DALI2 protocol and ensures compatibility with several brands of DALI-2 drivers, such as LTECH, TRIDONIC, EUCHIPS and LEEDARSON;
- Up to 64 DALI drivers supported, low limit and high limit settable for each channel;
- Up to 16 separate zones, zone dimming supported;
- Auto status recall for scene settings after reboot;
- Short circuit protection for DALI wires.



### 6CH 10A 0-10V Ballast Dimming Actuator

HDL-MRDA0610.432

It has 6-channel relay outputs and it is applicable for switch control. It has 6-channel for 0-10V analog signal outputs (supports input and output), which can control the 0-10V dimmable fluorescent tube and 0-10V LED light, etc.

- Up to 6 separate zones, up to 12 scenes in each zone;
- Up to 6 sequences, each sequence has 12 steps, running time for each step is 60 minutes;
- Bypass button for manual control is available to each channel;
- Working voltage: 15~30V DC;
- Working current: 30mA/24V DC; 0-10V output: 6CH/50mA (Total current is less than 100mA).



### **4CH 3A Leading Edge Dimming Actuator**

HDL-MD0403.432

It supports AC220V and AC110V power input. It has 4 output channels and each channel has a bypass button for manual control. Fuse protection is available for each channel, 8A fuse of each channel for protection (aR type).

- Up to 4 separate zones; up to 12 scenes for each zone;
- Up to 6 sequences and each sequence has 12 steps;
- 4 dimming curves with 512 dimming accuracy;
- Dimming mode: TRIAC, minimum load 40W:
- Working voltage: 15~30V DC;
- Working current: 28mA/24V DC.



### **2CH 6A Leading Edge Dimming Actuator**

HDI -MD0206 432

It supports AC220V and AC110V power input. It has 2 output channels and each channel has a bypass button for manual control. Fuse protection is available to each channel, 10A fuse of each channel for protection (aR type).

- Up to 2 separate zones; up to 12 scenes for each zone;
- Up to 6 sequences and each sequence has 12 steps;
- 4 dimming curves with 512 dimming accuracy;
- Dimming mode: TRIAC, minimum load 40W;
- Working voltage: 15~30V DC; • Working current: 28mA/24V DC.



### **6CH 2A Leading Edge Dimming Actuator**

HDI -MD0602 432

It supports AC220V and AC110V power input. It has 6 output channels and each channel has a bypass button for manual control. Fuse protection is available for each channel, 4A fuse of each channel for protection (aR type).

- Up to 6 separate zones; up to 12 scenes for each zone;
- Up to 6 sequences and each sequence has 12 steps;
- 4 dimming curves with 512 dimming accuracy;
- Dimming mode: TRIAC, minimum load
- Working voltage: 15~30V DC; • Working current: 28mA/24V DC.



### **2CH 3A MOSFET Dimming Actuator**

HDL-MDT0203.532

**Lighting Controller** 

MOSFET trailing edge dimming mode supports for each channel, which is applicable to dimming control of different types, for example, incandescent light, halogen light, dimmable LED light, dimmable LED driver, etc.

- Up to 2 separate zones, and up to 12 scenes can be set for each zone;
- Up to 6 sequences, and 12 steps for each sequence;
- Short circuit protection, instant overvoltage protection and overheat protection;
- 4 dimming curves;
- Working current: 26mA/24V DC;
- · Total output current: 6A Max.



### 4CH 1.5A MOSFET Dimming Actuator

HDL-MDT04015.532

MOSFET trailing edge dimming mode supports for each channel, which is applicable to dimming control of different types, for example, incandescent light, halogen light, dimmable LED light, dimmable LED driver, etc.

- Up to 2 separate zones, and up to 12 scenes can be set for each zone;
- Up to 6 sequences, and 12 steps for each sequence;
- Short circuit protection, instant overvoltage protection and overheat protection;
- 4 dimming curves;
- Working current: 35mA/24V DC;
- Total output current: 6A Max.



#### **Traic Constant Current Module**

HDL-MCR01A.40

It provides the minimum current for TRIAC dimmer, eliminates or decreases the glitter of capacitive loads, for example, LED lights, electronic transformers, etc.

- 1 channel for load;
- 22mA constant current;
- Work in conjunction with TRIAC dimmer;
- Parallel connected when working with the lamp;
- Input voltage: 0~240V AC;
- Frequency: 50-60Hz.



### **6CH 5A Intelligent LED Dimming Actuator**

HDL-MDLED0605.432

It can be used to control the LED light which has constant voltage. It has 6 output channels, and each channel has a bypass button for manual control.

- Up to 6 separate zones, up to 12 scenes in each zone:
- Each area has 1 sequence, each sequence has 12 steps;
- PWM constant voltage output;
- Working voltage: 15~30V DC;
- Working current: 40mA/24V DC;
- LED input voltage: 12~30V DC.



### **6CH 1.5A MOSFET Dimming Actuator**

HDL-MDT06015.533

MOSFET trailing edge dimming mode supported for each channel, which is applicable to dimming control of different types, for example, incandescent light, halogen light, dimmable LED light, dimmable LED driver, etc.

- Up to 2 separate zones, and up to 12 scenes can be set for each zone;
- Up to 6 sequences, and 12 steps for each sequence;
- Short circuit protection, instant overvoltage
- protection and overheat protection;
- 4 dimming curves;
- Working current: 40mA/24V DC;
- Total output current: 9A Max.



### **2CH 10A MOSFET Power Amplifier**

HDL-MDB0210.433

It works in conjunction with the dimming module to increase the output current of the dimming module.

- MOSFET dimming mode is adopted;
- LED status indicator for each output channel and manual control switch are available:
- Support short circuit protection and overheat protection;
- Input power voltage: AC100-240V (50/60Hz);
- Input control voltage: AC0-240V (50/60Hz);
- · Maximum total output current: 16A.



### **6CH Input & Output Module**

HDL-MSC06.432

It has 6ch 10A relay outputs and supports various kinds of output and input signal. The input types include: Dry contact, voltage, analogy voltage, current and analogy current.

- The input channel can be set as a mechanical switch and an electronic switch;
- Each input channel can be set to control 20 targets;
- Each input and output channel can be set separately;

Working voltage: 15~30V DC;
Working current: 80mA/24V DC;
Signal output: 0~10V DC / 4~20mA.



### 1CH 1A Flush-mounted Dimming Actuator (EU)

HDL-MPD0101-E.40

A smart dimming executive module installed in the wall box of the European standard panel, can be worked with the corresponding dry contact panel.

- With one 1A MOSFET trailing/leading edge dimming control channel;
- With 4 dry contact switch signal input channels;
- 4 LED switch signal output channels;
- With programming button and programming indicator;
- Working voltage: 15~28V DC;Working current: 48mA/24V DC.



### **6CH 10A High Performance Dimmer**

HDL-MDH0610A.4D

A dimmer based on MOSFET dimming technology. The dimmer has 6 output channels, which can drive high-power load.

- 6CH 10A MOSFET trailing dimming outputs; Built-in 4 dimming curves;
- · Support short-circuit protection, overheat protection and grounding protection;
- Input voltage: AC100~240V(50/60Hz);
- Power consumption with load: less than 4W;
- Connection: Three phase and four wires.



### **512CH DMX Scene Controller**

HDL-MD512-DMX.232

It supports DMX512, Art Net, and HDL Net protocols and is designed to control RGB LED strips, RGB lights, and other DMX devices using 512 channels.

- 512 DMX channels control;
- Up to 16 areas supported and up to 1024 scenes for each area;
- Up to 99 sequences can be set;
- Soft reset supported;
- Working voltage: 12~30V DC;
- Working current: 200mA/24V DC.



### 12CH 10A High Power Leading Edge **Dimming Actuator**

MWM65B 20

A silicon controlled rectifier module with 12 channels output. The actuator has scene controller and fire protection control output.

- 10 Bit dimming accuracy;
- Up to 12 separate areas, each area has 99 scenes;
- Short circuit and overload protection, PE protec-
- Input voltage: AC220V±10%;
- Power consumption with load: less than 10W;
- · Connection: three phase and five wires.



### **2CH Motorized Curtain Control Module**

HDL-MW02.431

It is specially designed for controlling curtains (shutters) through the controlling of AC motor.

- Hardware/software interlock for motor protection;
- Curtain working time settable;
- Control/Inching control of shutter; • Working voltage: 15~30V DC;
- Working current: 35mA/24V DC;
- Electronic life time of relay: >60000
- (Resistance load).



### **48CH DMX Scene Controller**

HDL-MC48IP-DMX.431

It supports DMX512 and is designed to control RGB LED strips, RGB lights, and other DMX devices.

- 48-channel, up to 48 separate areas;
- Up to 99 scenes;
- Up to 99 sequences supported;
- Working voltage: 12~30V DC;
- Working current: 40mA/24V DC;
- RJ45 connection: RJ45-TCP/IP network interface.



### **Curtain Motor**

MWC1-BP.10

Open / close / stop / open or close at specific percentage, and support "Touch Start" by default.

- · Auto pause and modification while detecting obstacles;
- Automatically complete the preset travel;
- Compatible with commissioning software and
- Motor input voltage: 100 240V AC, 50/60Hz;
- Motor rated consumption: 22W;
- Motor rotate speed: 90rpm;
- Motor sound level: < 30dB at silent mode

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Shading Controller

Climate Controller

### Milylanda Andrew MAX

### **Dry Contact Curtain Motor (220V AC)**

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Open, stop, close, manual control and remote control are available, support manual running when power off.

- Anti-sinking and waterproof design, IP41;
- Patented mechanical clutch design. Full automatic setting of the limits;
- Built-in radio receiver with day contact port;
- Rated input voltage: AC100-240V (50/60Hz);
- Rated input current: 1.2A;Motor rotate speed: 118rpm.

### **Buspro Blinds Motor 220V AC**

MVSM35B.20

It is applicable with blinds, Roman blind, venetian blind, etc.

- · High-accuracy position limit;
- Overheat and overload protection;
- Remote control supported with internal standard wireless receiving function (Remote controller is optional);
- Working voltage: 12~30V DC;
- Working current: 6mA / 24V DC;
- Rated input current: 0.9A;
- Motor rotate speed: 22rpm.



### **Curtain Remote Controller**

YR2188B

Curtain Remote Controller, voltage: 3.3V button cell, can control 6 motors.



### **Air Conditioning Control Module**

HDL-MAC01.431

Designed to control centralized HVAC systems in conjunction with air conditioner panel. Master-slave mode supported, one master module can control 8 slave modules.

- · Smart control of fan speed and modes;
- Up to 4 digital temperature sensors DS18B20 supported;
- 0-10V DC output for fan speed control;
- Working voltage: 15~30V DC;
- Working current: 95mA / 24V DC;
- Maximum current of each channel: 5A;
- Electronic life time of relay: >60000次



### **6CH Floor Heating Module**

HDL-MFH06.432

Each channel supports 1A Relay output and 0-10V power output. Built-in PI controller, supports 13 digital temperature sensors.

- Detects temperature with digital temperature sensor DS18B20;
- Support AC/DC electrical heating valve and 0-10V electrical heating valve;
- Support flush function, manual flush or timer controlled;
- Working current: 150mA / 24V DC;
- DC 0-10V output current: 10mA;
- Relay unit life time: 50,000 actuations.



### **4CH Electric Fan Controller**

HDL-MFAN04.432

It is specially designed fan control module, smart control of fan speed level is supported through controlling via smart control panel.

- Support four fans simultaneously;
- 9 fan speeds for each channel;
- Working voltage: 18~30V DC;
- Working current: 81mA/24V DC;
- Rated load: 4CH, 80W/CH Max.;
- Electronic life time of relay: >60000 actuations.



### **4CH IR Emitter with Current Detection**

HDL-MIRC04.40

Transmit the IR codes to control IR devices, for example, air conditioner, TV, fan, projector, Set-Top Box, DVD, etc. It also supports current detection for devices.

- Support 24 devices and 100 IR codes;
- · Current detection;
- Support up to 99 UV switches.;
- Working voltage: 30mA/24V DC;
- Sending carrier wave frequency: 38kHz;
- IR control distance: 5m.

**Hotel Room Controllers** 

#### **Climate Controller**



#### **Infrared Code Learner**

HDL-MIR01L.01

Learn various key commands (for example, AC, TV, DVD, satellite receiver, audio & video device, etc.).

- 2.0 USB Interface, driver free and easy to use;
- Range of carrier wave frequency: 38kHz±20%.



### **Security Command Module**

HDL-MSM.431

It can protect the 8 different areas and enable the creation of zone security areas. Sends real time SMS notifications if a security device is triggered.

- Multiple security modes: away, holiday, timing, etc.
- Multiple alarm modes: invade, fire, temperature, emergency, etc.;
- Support review alarm history record;
- Multi-level security protection;
- Working voltage: 15~30V DC;
- Working current: 15mA/24V DC.



### **Logic Automation Module**

HDL-MCLog.431

Used for controlling a series of targets. The logic conditions enable date and timing information input, universal switch status, and external inputs.

- Up to 12 logic groups can be set, each logic group
- Have 20 logic blocks;
- Each logic block has 4 input Pins and 20 output control targets;
- Built-in real-time clock;
- Working voltage: 15~30V DC;
- Working current: 15mA/24V DC.



### **HomePlay Network Player**

HDL-MZBOX-A50B.30

Able to turn any pair of speakers to a wireless HiFi multiroom audio system, play music from a range of streaming services as well as smartphone, tablet, flash drivers and NAS.

- Multi format support;
- Simultaneous multi source multi room streaming;
- Fully compatible with HDL room scenes and sequences;
- Support music playback via connecting external audio devices;
- Wireless Connectivity: Supports 802.11 a/b/g/n standards:
- Wired Connectivity: Single 10/100M RJ-45 jack.



#### **RCU Room Control Unit 2.0**

HDL-MHRCU-II.433

It is the core of a hotel system, supporting hotel host control, mix module control, 48-channel dry contacts and doorbell function. There are totally 23 Channel output: Relay CH1-10 are 5A, Relay 11-12 are 16A, Relay 13-20 are 3A and Dimming CH21-23 are 1A.

- HDL Buspro, RJ45, INNER RJ45, UDP/IP Network Interface;
- With 2 RS485 interfaces to support expansion;
- 1CH Door Bell relay and built-in 2CH IR control;
- Supports 50 scenes, each scene can be configured with 32 targets;
- 48 general logics and 8 normally used fixed logics;
- Working current: 260mA/24V DC.



### **RCU Room Control Unit**

HDL-MHRCU.433

Up to 48 channels and 99 scenes. It supports hotel host control, mix module control, 24-channel dry contacts, doorbell status display and LED output.

- Light protection delay and mass turn-on delay for each channel;
- Activate corresponding scene according to card master after identification;
- Monitors and controls air conditioners, curtains, lightings, room status, etc.;
- Bidirectional data exchange between HDL Buspro and Ethernet;
- The RCU Room Control Unit has a RJ45 port;
   Working current: 300mA/24V DC.



### **Hotel Room Control Host**

HDL-MHC48IP.431

Up to 48 channels and 99 scenes, it can be used in conjunction with the mix control module, other relay and dimming modules without scene controller, etc.

- Light protection delay and mass turn-on delay for each channel;
- Activate corresponding scene according to card master after identification:
- Monitor and control air conditioners, curtains, lightings, room status, etc.;
- Support connecting to devices in RS485 communication:
- The RCU Room Control Unit has a RJ45 port;
- Working current: 30mA/24V DC.



### **Hotel Room Control Host**

HDL-MH48IP/D.231

Up to 48 channels and 50 scenes, it has 51-channel dry contacts and supports hotel room host control and dry contact function.

- Light protection delay and mass turn-on delay for each channel;
- Activate corresponding scene according to card master after identification;
- Monitor and control air conditioners, curtains, lightings, room status, etc.;
- Support connecting to devices in RS485 communication;
- $\bullet$  The RCU Room Control Unit has a RJ45 port;
- Working current: 600mA/24V DC.

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#### **IOU Mix Control Actuator**

HDL-MHIOU-II.432

It supports functions of MOSFET dimming, relay, curtain control, dry contact, doorbell control and LED output.

- Channel 1 and 2 are trailing edge dimming outputs, up to totally 1.6A current output;
- Channel 3 to 12 are relay outputs, each channel is 5A;
- Channel 9 and 10, 11 and 12 can be used for curtain control:
- 14-channel dry contact input;
- Working voltage: 15~30V DC;
- Working current: 185mA/24V DC.



#### 22CH Hotel Room Mix Control Module

HDL-MHMIX22.232

It supports 16CH 5A relay control output, 4CH 10A relay control output and MOSFET dimming output.

- 20 relay channels and 2 MOSFET dimming channels;
- Support short circuit protection and overheat protection;
- Inner Bus communication is adopted;
- · Support hardware identification and adopt dial code control;
- Working voltage: 15~30V DC;
- Working current: 180mA/24V DC.



### **4CH Universal Dimming Actuator**

HDL-MHD04A.231

Enable the switch control between four channels of 0-10V dimming output and four channels of MOSFET dimming output.

- Isolated 0-10V output;
- · Support short circuit protection and overheat protection;
- Inner Bus communication is adopted;
- Support hardware identification and adopts dial code control;
- Working voltage: 15~30V DC;
- Working current: 55mA/24V DC



#### **10CH Hotel Room Mix Control Module**

HDL-MHMIX10.231

It supports 6CH 5A relay control output, 2CH 10A relay control output and MOSFET dimming output.

- 8 relay channels and 2 MOSFET dimming channels;
- Support short circuit protection and overheat protection;
- Support hardware identificationand and adopt dial code control;
- Inner Bus communication is adopted;
- Working voltage: 15~30V DC;
- Working current: 100mA/24V DC.



### **8CH High Power Switch Actuator**

HDL-MHR8.231

It supports control output of relay switch. Totally 8 relay channels: 2CH 10A and 6CH 5A, supports lights, FCU and curtain control.

- The relay channel can control the switch of connected channels;
- Inner Bus communication is adopted:
- ID address of the actuator can be configured via dial code control;
- Working voltage: 15~30V DC;
- Working current: 100mA/24V DC.



### **51CH Dry Contact Module**

HDL-MHS51.231

51 channels for dry contact input and output, it supports input and output settings of each channel.

- Dimming and switch are available when the dry contact inputs;
- Input or output of each channel can be set independently;
- Enable or disable function of each channel can be set independently;
- Working current: 280mA/24V DC;
- Output current: Max. 8mA/CH;
- Output impedance: 100Ω.



- Adopts 24GHzmillimeter wave radar technology and human detection algorithm;
- Rated voltage: 24V DC;
- Input voltage: 12 30V DC;
- Micro motion detection frequency: 24GHz-24.25GHz;
- Micro motion detection range: Φ6m (Installation height is 3m);
- Illuminance detection range: 0-1200Lux;
- Temperature detection range: -20°C~60C°;



### **AirKit Quality Sensor**

MAIR-Q/H.10

A comprehensive index of intelligent air monitoring instrument, which can monitor the air PM2.5 concentration, temperature, humidity, carbon dioxide (CO2), TVOC, etc.

- · Adopt RS-485 communication interface and integrate ModBus RTU protocol;
- AC power supply: 180-240V;
- DC power supply: 7-32V;
- Working current: ≤250mA;
- TVOC range: 0.22-9.99mg/m<sup>3</sup>;
- PM2.5 parameter range: 0~999μg/m³;
- CO2 sensor range: 0-9999ppm;
- Temperature range: 40 °C ~125 °C.



### Ceiling Mount 7-in-1 Sensor

HDL-MSP07M.4CT

Built-in PIR sensor, temperature sensor, LUX sensor, 2 dry contact inputs and 2 universal switches.

- 24 logical blocks and each block contains 10 object outputs;
- · Constant LUX function;
- Working voltage: 18~30V DC;
- Working current: 25mA/24V DC;
- Detection range: Φ6m;
- Temperature detection range: -20 ° ~60 °;
- Illumination sensing range: 0-500lux.



### **Ceiling Mount 8-in-1 Sensor**

HDL-MSP08M.4C

Built-in PIR sensor, LUX sensor, 2 dry contact inputs and 2 universal switches.

- · With constant brightness control;
- 12 logic blocks and each block contains 10 object outputs;
- IR emission function of remote control code;
- Working voltage: 18~30V DC;
- Working current: 30mA/24V DC;
- Detection range: Φ6m;
- IR emission distance: 4m;
- Illumination sensing range: 0-500lux.



### **Ceiling Mount Indoor Microwave Sensor**

HDL-MSW01.4C

Contain LUX sensor, microwave sensor, temperature sensor, dry contact and universal switch

- 24 logic blocks and each block can control 20
- · object outputs;
- Support security function;
- Working voltage: 12~30V DC;
- Working current: 32mA/24V DC;
- Temperature detection range: -40°C~60°C;
- Illumination detection range: 0~5000LUX;
- Microwave detection range: Major axis direction: Φ 10m, Minor axis direction: Φ5m.



### **Wall Mount Outdoor Microwave Sensor**

HDL-MSOUT.4W

It contains LUX sensor, microwave movement sensor, humidity sensor, temperature sensor, dry contact and universal switch.

- 24 logic blocks and each block can control 20 object outputs;
- · Support security function and Tamper-proof function;
- Working voltage: 12~30V DC;
- Working current: 31mA/24V DC;
- Temperature detection range: -40°C~60°C;
- Illumination detection range: 0~15000LUX;
- Humidity detection range: 20~95%RH;
- Microwave detection range: Φ30m.



### Ceiling Mount Temp. Humidity & LUX Sensor

It contains built-in temperature sensor, LUX sensor, humidity sensor, dry contact input and external universal switch.

- 24 logic blocks;
- Working voltage: 12~30V DC;
- Working current: 25mA/24V DC;
- Temperature detection range: -20°C~60°C;
- Illumination detection range: 0~5000LUX;
- Humidity detection range: 20~95%RH.



### **Ceiling Mount Ultrasonic Sensor**

HDL-MSPU03.4C

Contain ultrasonic sensor and LUX sensor and universal switch.

- 24 logic blocks in total, each logic block has 20 output targets;
- · Security function (security module required)
- Working voltage: 18~30V DC;
- Working current: 30mA/24V DC;
- Detection range: Φ6m;
- Illumination sensing range: 0-500lux.



### **Ceiling Mount PIR & LUX Sensor**

HDL-MSP02.4C

It contains PIR motion sensor, LUX sensor and universal switch.

- 24 logic blocks in total, each logic block has 20 output targets;
- Security function (security module required)
- Working voltage: 18~30V DC;
- Working current: 20mA/24V DC;
- Detection range: Φ6m;
- Illumination sensing range: 0-500lux.

# INFRASTRUCTURE DEVICES / ACCESSORIES











### **Hotel Room Controllers**



### 750mA Power Supply Module

HDL-MSP750.431

It provides 24V DC voltage, 750mA current with 2 connection types. The total current can reach 750mA.

- Short circuit and over current protection;
- Ripple Wave: Less than 150mV;
- Input voltage AC100-240V(50/60Hz).



### 1200mA Power Supply Module

HDL-MSP1200.431

It provides 24V DC voltage, 1200mA current with 2 connection types. The total current can reach 1200mA.

- Short circuit and over current protection;
- Ripple Wave: Less than 150mV;
- Input voltage AC100-240V(50/60Hz).



### 2400mA Power Supply Module

HDL-MSP2400.232

It provides 24V DC voltage and 2400mA current to the Buspro system.

- Short circuit and over current protection;
- Power Supply: 24V DC;
- Input voltage AC100-240V(50/60Hz).



### **HDL BUS 6 Lines**

HDL-MBC06.431

It has 6 bus terminals and can connect up to 12 devices with hand-in-hand wiring to complete the simple connection.



### **HDL 6 Ports Switch**

HDL-MBR06.431

Work with 1 Port Programming Gateway to expand device connection and is convenient for wiring.

- Data filtering;
- · Data checking;
- 6 bus cables supported, up to 63 devices connection supported for each bus cable;
- Working voltage: 12~30V DC;Working current: 15mA/24V DC.



### **HDL FastFix cable**

HDL-MCL04P, HDL-MCL08P, HDL-MCL12P, HDL-MCL16P

Supports all module types, including dimmers, sensors, user interfaces, relays, actuators, and controllers.

- 4 core shielded cable: red, black, white, yellow;
- Strong signal transmission capability;
- Strong anti-jamming capability;
- Convenient for wiring connection;
- Recommended connection: hand in hand.



### A worldwide standard for home and building control

KNX is a worldwide standard for home and building control. Solutions based on HDL KNX are widely adopted to meet various automation needs of residential and large buildings around the globe.

In 2006, HDL joined the KNX Association. As a manufacturer member of KNX, HDL offers high quality KNX products to the market, such as smart panel, relay, dimmers, controllers, etc. And HDL KNX products were applied to many projects, for example, office block of the Australian institute of architects 41X and new NATO headquarters building. In 2017, HDL established the 16th KNX accredited test lab of the world.

### **Advantages**

**Endless Flexibility** 

**⊘** Open Standard

**True Compatibility** 

**⊘** Safe and Dependable

(9) Easy-to-install









### Source 7



Souce is a smart panel that enable to effortless control lighting, scenes, shading, HVAC and music. It adopts 7-inch LCD screen, equipped with HD camera for indoor communication and stepless knob, built-in Proximity Sensor, Temperature&humidity Sensor and LUX Sensor. The panel supports multi-gateway cross-drive control.

Dimonoios

219.2×102×25.6mm (without power interface) 219.2×102×54.8mm (with power interface)

Housing material: PC
Installation: Wall box

Protection Type(Conform to EN 60529): IP20

Color: • Pine green • Mountain blue • Ink black

### **Features and Specifications**

- Stepless knob assures accruate positioning
- Enabling indoor communication between different rooms
- Capable of working as a gateway
- Available in Buspro, KNX, Buspro
- wireless, WiFi and RJ45



### Source-KNX Power Interface

- Power supply for Source 7
- 2CH relay output
- Network connection through communication interface
- •Compatible with KNX &Zigbee gateway functions









### **Granite Display**

Granite Display is a high-end and multi-function control panel for home automation. With 4-inch LCD screen and full-screen touch control, it is convenient for the users to control lighting, curtain, scene, air conditioning, floor heating, music and fresh air in an intuitive way.

Working voltage: 21~30V DC Working current: 12mA/30V DC Auxiliary current: 108mA/24V DC Installation: Wall box

Color: Space Gray

### **Features and Specifications**

- Built-in temperature and humidity sensor, proximity sensor;
- Support screen lock;
- Adjustable LCD backlight brightness;
- LCD screen wakes up automatically;
- Support sleep mode;
- Support online upgrade.











### Granite 4.3"

Granite 4.3" is a multi-function control panel with 4.3-inch LCD screen and full-screen touch control. There are dedicated pages for lighting, curtain, scene, air conditioning, floor heating, music and fresh air. And users can also quickly access the most frequently used functionality or scenes by the short-cut buttons on the home screen.

Working voltage: 21~30V DC Working current: 15mA/30V DC Auxiliary current: 110mA/24V DC Installation: Wall box

Color: Space Gray

### **Features and Specifications**

- Built-in temperature and humidity sensor, proximity sensor;
- Support screen lock;
- Adjustable LCD backlight brightness;
- LCD screen wakes up automatically;
- Support sleep mode;
- Portrait mode and landscape mode supported.



### **Granite**

Granite is a series of multi-functional push-button panels with aluminum plate for home automation, used to control lighting, curtain and scene. It is available in two sizes, EU size with 4 buttons and US size with 6 buttons.

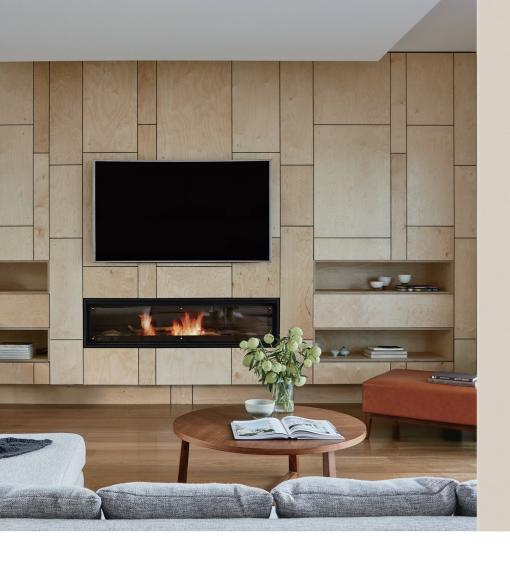
Working voltage: 21~30V DC Working current: 6mA/30V DC Installation: Wall box

Color: • Space Gray

### **Features and Specifications**

- Built-in temperature probe, can automatically obtain the temperature information;
- Support LED backlight and indicator;
- Adjustable color and brightness of LCD backlight;
- Customizable icon;
- Combination button mutual exclusion function is available.

76



Tile

functionalities.

Tile is a series of smart control panels in EU

standard. You can use just one unit if it meets

your requirement, or combine multiple units to

serve more functionalities in a specific area,

but only metal panels are available to install

multiple units in a vertical direction. It is able

to keep the walls in a consistent and beautiful

look while meeting various requirements of

Metal: 

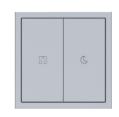
Champagne Gold

Space Gray

Color: Plastic: Olvory White Ash Gray











### **Tile Series Push-button Panel**

Tile Series Push-button Panel contains 1/2/4-button panels, both plastic and metal versions. The mechanical structure of the keys is upgraded to give you firmer push feedback while being quieter. Tile Series Push-button Panels are all-round panels for whole-home automation control, enabling controls of lighting, curtains, scenes, music, etc.

#### **Features and Specifications**

- Adjustable RGB icon backlight;
- Customizable button icons;
- Button lock function;
- Working voltage: 21~30V DC.









### **Tile Series Climate Panel (Thermostat)**

Tile Series Climate Panel is divided into a segment code LCD screen and four pushbuttons, it can offer comprehensive monitoring of environment measurements and enable controls of air conditioning, floor heating and ventilation system. There are different pages for air conditioning, floor heating and ventilation system, and each can be used to control 1 channel.

### **Features and Specifications**

- Adjustable brightness of LCD screen and RGB icon backlight;
- Support parental controls;
- · Adjustable RGB icon backlight;
- Working voltage: 21~30V DC.















### Features and Specifications

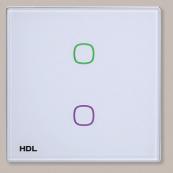
- Built-in temperature and proximity sensor;
- Icons and text support laser labelling;
- Maximum sensing distance: 15cm;
- Support online upgrade;
- Support easy programming.

Tile Series Card Holder Panel, USB2.0 and Type-C Socket, Dual USB Charger Wall Outlet, EU Socket, Dry Contact Push Switch and Emergency Button Panels











### Tile Display

Tile Display is a multi-function control panel for home automation. With 3.5-inch LCD screen and full-screen touch control, it is convenient for the users to control lighting, curtain, scene, air conditioning, floor heating, music and fresh air in an intuitive way. Tile Display can be combined with other panels in the Tile series for more futionality but with a consistent look.

Working voltage: 21~30V DC Working current: 11mA/30V DC Installation: Wall box

### **Features and Specifications**

- Built-in temperature, humidity sensor and proximity sensor;
- Adjustable LCD screen backlight brightness;
- Support screen lock;
- LCD screen wakes up automatically;
- Support sleep mode;
- Support online upgrade.



### iTouch

A series of multi-functional touch control panels for home automation both in EU and US standard. The US standard has 2, 4 and 6 buttons while EU standard has only 2 and 4 buttons. iTouch is enclosed by a fine aluminum frame, and always used to control lighting, curtain, AC, scene, music, etc

Working voltage: 21~30V DC Working current: 13mA/30V DC Installation: Wall box

Color: ● Black ○ White

### **Features and Specifications**

- Touch button with RGB backlight;
- Adjustable RGB indicator color and brightness;
- Customizable button icons;
- Support online upgrade.











### **Enviro**

Enviro Touch Screen is a high-end and multi-function control panel for home automation. With 4.3-inch color capacitive LCD screen and touch control, it is convenient for the users to control lighting, scene, curtain, music, air conditioning, floor heating and others in an intuitive way.

Working voltage: 21~30V DC
Working current: 21mA/30V DC
Auxiliary current: 10mA/24V DC
Installation: Wall box

Color: O White Black

### **Features and Specifications**

- Built-in temperature sensor;
- Adjustable LCD backlight;
- LCD screen wakes up automatically.;
- Customizable UI;
- Support online upgrade.



### DLP

DLP is a series of smart control panels with physical buttons and mono-color LCD display for home automation both in EU and US standard. With 8 control buttons and 2 page buttons, the panel has 4 general pages for lighting, curtains, etc. and dedicated pages for AC, floor heating and background music.

Working voltage: 21~30V DC Working current: 20mA/30V DC Installation: Wall box

Color: ● Black ○ White

### **Features and Specifications**

- Built-in temperature sensor;
- Icon for Key Buttons can be changed;
- Support 147 languages;
- Customizable icons or captions;
- Support online upgrade.







**DLP Touch** 



DLP Touch is designed to offer you a quick and simple touch-control experience. With the mono-color LCD in the middle, you can have the icons or text customized. It has 8 control buttons, 2 page buttons and 4 shortcut buttons, which is convenient for users to control lights, curtains, AC, floor heating, background music, etc.

Working voltage: 21~30V DC
Working current: 20mA/30V DC
Installation: Wall box

Color: ● Black ○ White

### **Features and Specifications**

- Built-in temperature sensor;
- Customizable icons and captions;
- RGB button indicator and voice prompt are available;
- Adjustable LCD backlight;
- · LCD screen wakes up automatically;
- Touch button can be locked via KNX/EIB.



### **KNX Panel Power Interface EU**

Two interfaces, and one interface connects to

KNX/EIB, the other connects to panel or sensor,

etc. The power interface provides power supply

and communication signal to KNX panels or



- Working voltage is 21~30V DC;
- The panel power interface should be installed on the wall box.



sensors.

### **KNX Panel Power Interface US**



Two interfaces, and one interface connects to KNX/EIB, the other connects to panel or sensor, etc. The power interface provides power supply and communication signal to KNX panels or sensors.

- Working voltage is 21~30V DC;
- The panel power interface should be installed on the wall box.



### KNX Panel Power Interface EU (with External Power Supply)

M/PCI2PE.1

M/PCI.3-A

M/PCI.1-A

It has 2 power interfaces. The auxiliary power interface is connected to an external power supply to provide an auxiliary power input for the matching panel.

• Working voltage: 21~30V DC

• Auxiliary power supply: 20~30V DC.





### **KNX Panel Power Interface US (with External Power Supply)**

M/PCI2PU.2

M/PCI2PC2R.1

M/PCI2PC3R.1

It has 2 power interfaces. The auxiliary power interface is connected to an external power supply to provide an auxiliary power input for the matching panel.

• Working voltage: 21~30V DC

• Auxiliary power supply: 20~30V DC.



### **Power Interface-With 2CH 10A Relay**

Work in conjunction with KNX Granite Display, etc. and provide working power and communication signals to the panel..

• With 2 10A relay channels;

• With independent programming button and programming indicator;

• Relay usage time & frequency statistics;

• Relay health check (voltage detection); Working current: 25mA/30V DC;

• Auxiliary current: 10mA/24V DC.



### Power Interface-With 3CH 10A Relay

It is a standard panel power interface with relay channels. The power interface has an independent device ID address, including 10A relay channels.

With 3 10A relay channels;

• With independent programming button and programming indicator;

• Relay usage time & frequency statistics;

• Relay health check (voltage detection);

• Working current: 25mA/30V DC;





### **KNX Tile Series Power Interface**

It works in conjunction with KNX Tile Series panels and provides working voltage and communication signals to the panel.

- Working voltage is 21~30V DC;
- The panel power interface should be installed on the wall box.



### **KNX Tile Series Panel Power Interface**

KNX Tile Series Panel Power Interface with

External Power Supply provides DC power

and communicates to KNX Tile Display.

Working voltage: 21~30V DC;

Auxiliary power supply: 20~30V DC;

• The panel power interface should be





M/PTCI2P.1

M/PTCI.1

installed on the wall box.

• Auxiliary current: 10mA/24V DC.





### **KNX Tile Series Power Interface-With 2CH 10A Relay**

M/PTCI2P2R.1

It is a standard panel power interface with relay channels. The power interface has an independent device ID address, including 10A relay channels.

- With 2 10A relay channels;
- With independent programming button and programming indicator;
- Relay usage time & frequency statistics;
- Relay health check (voltage detection);
- Working current: 25mA/30V DC;
- Auxiliary current: 10mA/24V DC.





### **KNX Tile Series Power Interface-With 3CH 10A Relay**

M/PTCI2P3R.1

It is a standard panel power interface with relay channels. The power interface has an independent device ID address, including 10A relay channels.

- With 3 10A relay channels;
- With independent programming button and programming indicator;
- Relay usage time & frequency statistics;
- Relay health check (voltage detection);
- Working current 25mA/30V DC;
- Auxiliary current 10mA/24V DC.

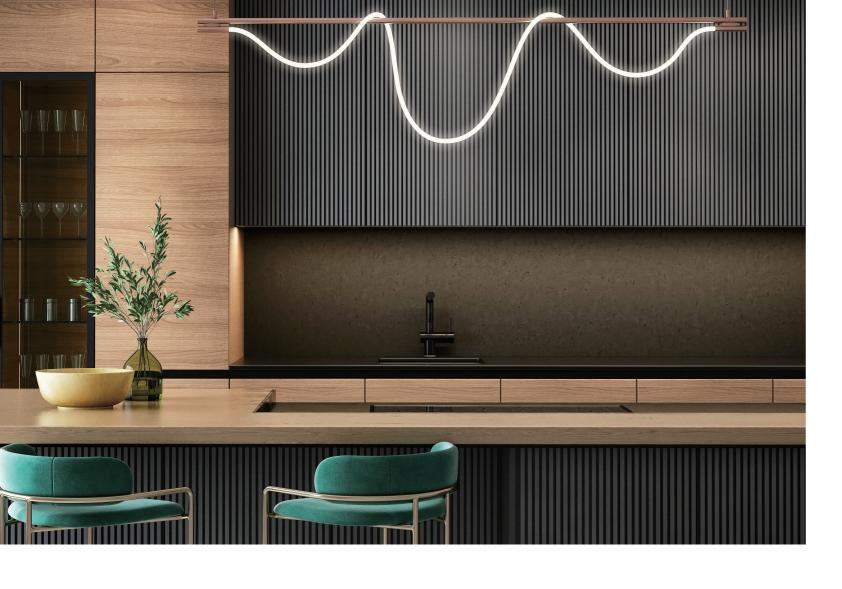
# GATEWAYS / DRY CONTACT MODULES













### **KNX-RS485 Interface Mini**

M/RS485MNI.1

Used for bidirectional data exchange between KNX and RS485.

- Support up to 200 control targets;
- Up to 200 characters for each target;
- 24 sequences supported;
- Communication: KNX, RS485;
- Working voltage: 21~30V DC;
- Working current: 10mA/30V DC.



### **KNX Gateway**

M/GWASC.1

It is a product designed based on Linux system hardware platform. It supports HDL Buspro Setup Tool, ON+, Cloud server, etc., integrating scene, logic, security, clock, server automatic prompt upgrade and other functions.

Working voltage: 21~30V DC
Working current: 20mA/30V DC

Communication protocol: KNX, RS485, Ethernet

### Features and Specifications

- Real-time update of device status and device control;
- The server application automatically prompts for upgrade;
- Supported protocol: http \ tcp \ udp \ mqtt;
- Support intranet communication, remote
- System detection, device status report;
- Support backup upload and download of APP, Cloud, debugging software;
- Drive management of third-party products;
- Data backup and data recovery function.

# nnnnnn

### **KNX 48CH Dry Contact Module**

M/S48.1

Support 48-channel dry contact input, which enables control of lights, curtains, scenes, etc..

- Switch dry contact input and output;
- Can be used to detect dry contacts when as input channel;
- Output pulse signal to drive an LED status indicator when as output channel;
- Support up to 10 scenes, and up to 100 output targets;
- Working current: 3mA/30V DC;
- Auxiliary current: 10mA/24V DC.



### **KNX 24-Zone Dry Contact Module**

M/S24.1

Support 24-channel dry contact input and each of which can be individually controlled with up to 13 different control targets.

• Dry contact type can be set as mechanical switch or electric switch;

Working voltage: 21~30V DC;Working current: 10mA/30V DC.



### **KNX 8-Zone Dry Contact Module**

M/S08.1

It has 8-channel dry contact input and supports 2 control modes, including dry contact input control and logic control.

- Level 1-4 logic controls can be set;
- Have 18 logic blocks;
- Have 10 logic output blocks, each logic block can independently control 8 targets;
- Working voltage: 21~30V DC;
- Working current: 5mA/30V DC.



### **KNX 4-Zone Dry Contact Module**

M/S04.1

It has 4 input channels and 4 output channels.

- Dry contact input and temperature sensor input are available;
- Support 4CH dry contact input and 4CH LED state output;
- 0-10V dimming output signal enable to control 0-10V devices, such as LED lights;
- Support sensor control, logic control, dimming control;
- Working current: 5mA/30V DC;
- DC0~10V output current: 3mA.

# CONTROLLERS / ACTUATORS





Relays

### KNX 3CH 10A Flush-mounted Switching Actuator

M/FMC3R.1

It is a smart relay executive module installed in the wall box of the Chinese standard panel. In conjunction with the corresponding dry contact panel, the actuator enables smart control of electrical devices.

- Support three 10A relay control channels;
- 7 dry contact input channels;
- 7CH LED output, 12mA/CH;
- With programming button and programming indicator;
- Working current 25mA/30V DC;
- Auxiliary current 53mA/24V DC.



### KNX 2CH 10A Flush-mounted Switching Actuator (EU)

M/FME2R.1

It is a smart relay executive module installed in the wall box of the European standard panel. In conjunction with the corresponding dry contact panel, the actuator enables smart control of electrical devices.

- Support 2CH 10A relay control channels;
- 4 dry contact input channels;
- 4CH LED output, 12mA/CH;
- With programming button and programming indicator;
- Working current 25mA/30V DC;
- Auxiliary current 53mA/24V DC.



### KNX 1CH 16A Flush-mounted Switching Actuator (EU)

M/FME1R.1

It is a smart relay executive module installed in the wall box of the European standard panel. In conjunction with the corresponding dry contact panel, the actuator enables smart control of electrical devices.

- Support 1CH 16A relay control channel;
- 4 dry contact input channels;
- 4CH LED output, 12mA/CH;
- With programming button and programming indicator;
- Working current 25mA/30V DC;
- Auxiliary current 53mA/24V DC.



### KNX 4CH 10A High Power Switch Actuator

M/R4.10.1

The actuator has 4 channels and each channel outputs 10A current.

- Maximum output current of each channel:10A;
- Heating function: PWM(1bit/1byte) control output;
- Working voltage: 21~30V DC Class 2;
- Working current: 15mA/30V DC;
- Input voltage: 120V/240V AC (50/60Hz);
- Operation times: >100,000.



### KNX 8CH 10A High Power Switch Actuator

M/R8.10.1

The actuator has 8 channels and each channel outputs 10A current.

- Maximum output current of each channel:10A;
- Heating function: PWM(1bit/1byte) control
   output:

• Working voltage: 21~30V DC Class 2;

• Working current: 15mA/30V DC;

• Input voltage: 120V/240V AC (50/60Hz);

• Operation times: >100,000.



### KNX 12CH 10A High Power Switch Actuator

M/R12.10.1

The actuator has 12 channels and each channel outputs 10A current.

- Maximum output current of each channel:10A;
- Heating function: PWM(1bit/1byte) control
   output:

• Working voltage: 21~30V DC Class 2;

Working current: 15mA/30V DC;

Input voltage: 120V/240V AC (50/60Hz);

• Operation times: >100,000.



### KNX 16CH 10A High Power Switch Actuator

M/R16.10.1

The actuator has 16 channels and each channel outputs 10A current.

- Maximum output current of each channel:10A;
- Heating function: PWM(1bit/1byte) control output;
- Working voltage: 21~30V DC Class 2;

• Working current: 15mA/30V DC;

• Input voltage: 120V/240V AC (50/60Hz);

• Operation times: >100,000



### KNX 4CH 16A High Power Switch Actuator with Current Detection

M/R4.16.1-CD

The actuator has 4 channels and 50A magnetic latching relay.

- Maximum output current of each channel:16A;
- Heating function: PWM(1bit/1byte) control output;
- Current detection function;
- Working voltage: 21~30V DC Class 2;
- Working current: 15mA/30V DC;
- Input voltage: 120V/240V AC (50/60Hz);
- Operation times: >100,000.



### **KNX 8CH 16A High Power Switch Actuator with Current Detection**

M/R8.16.1-CD

Relays

The actuator has 8 channels and 50A magnetic latching relay.

- Maximum output current of each channel:16A;
- Heating function: PWM(1bit/1byte) control output;
- Current detection function;
- Working voltage: 21~30V DC Class 2;
- Working current: 15mA/30V DC;
- Input voltage: 120V/240V AC (50/60Hz);
- Operation times: >100,000



### **KNX 12CH 16A High Power Switch Actuator with Current Detection**

M/R12.16.1-CD

The actuator has 12 channels and 50A magnetic latching relay.

- Maximum output current of each channel:16A;
- Heating function: PWM(1bit/1byte) control output;
- Current detection function;
- Working voltage: 21~30V DC Class 2;
- Working current: 15mA/30V DC;
- Input voltage: 120V/240V AC (50/60Hz);
- Operation times: >100,000.



### **KNX 4CH 16A High Power Switch Actuator**

M/R4.16.1

The actuator has 4 channels (16A for each channel) and 50A magnetic latching relay and has manual control switches.

- Maximum output current of each channel:16A;
- Heating function: PWM(1bit/1byte) control output;
- Working voltage: 21~30V DC Class 2;
- Working current: 15mA/30V DC;
- Input voltage: 120V/240V AC (50/60Hz);
- Operation times: >100,000



### **KNX 8CH 16A High Power Switch Actuator**

M/R8.16.1

The actuator has 8 channels (16A for each channel) and 50A magnetic latching relay and has manual control switches.

- Maximum output current of each channel:16A;
- Heating function: PWM(1bit/1byte) control output;
- Working voltage: 21~30V DC Class 2;
- Working current: 15mA/30V DC;
- Input voltage: 120V/240V AC (50/60Hz);
- Operation times: >100,000.



### **KNX 12CH 16A High Power Switch Actuator**

M/R12.16.1

The actuator has 12 channels (16A for each channel) and 50A magnetic latching relay and has manual control switches.

- · Maximum output current of each channel:16A;
- Heating function: PWM(1bit/1byte) control output;
- Working voltage: 21~30V DC Class 2;
- Working current: 15mA/30V DC;
- Input voltage: 120V/240V AC (50/60Hz);
- Operation times: >100,000



#### **KNX 17CH Mix Actuator**

M/MHR17U.1

It is used for controlling relays, dimmers, curtains and air conditioners.

- Supports 17CH relay control channels;
- CH1-6 and 12-17 are TV8 5A relays;
- CH7-11 are 10A magnetic latching relays;
- Working current: 14mA/30V DC;
- Auxiliary current: 97mA/30V DC.



### **KNX 19CH Mix Actuator**

M/MHD02R17U.1

It is used for controlling relays, dimmers, curtains and air conditioners. The actuator supports 19CH control channels.

- 17 relay channels and 2 MOSFET dimming channels;
- CH1-6 and 12-17 are TV8 5A relays;
- CH7-11 are 10A magnetic latching relays;
- MOSFET dimming output channel: 2CH/1A;
- Working current: 14mA/30V DC;
- · Auxiliary current: 97mA/30V DC.



### **KNX-DALI Gateway**

M/DALI.1

With built-in DALI power supply and DALI Buspro, the actuator supports up to 64 DALI devices. Real-time failure detection enables the gateway to detect ballast failure and lamp failure etc.

- 20% faster data upload and download;
- 5 times greater ballast management efficiency compared to DALI gateway;
- Support DT8 which allows a user to change light colour and colour temperature;
- DALI2 Compitable;
- Working voltage: 21~30V DC;
- Working current: 5mA/30V DC;
- Input voltage: AC100-240V, 50/60Hz.



### **KNX 4CH 1.5A MOSFET Dimming Actuator**

M/DM04.1

It has 4CH 1.5A output circuits, which supports multiple application functions.

- Support leading and trailing edge mode;
- Parallel channels can form heavy current output;
- Manual switching, dimming for each channel;
- Working current: 20mA/30V DC;
- Input voltage: AC100-240V (50/60Hz);
- Total output current: 6A Max.



### KNX 6CH 10A 0~10V Dimming Actuator

M/DA6.10.1

It supports 6-channel 0/1-10V dimming, and each circuit is equipped with10A relay synchronous control to turn it on and off.

- The buttons can be manually controlled to control the switch and dimming;
- Both current absorbing and output ballasts can be used;
- Working current: 15mA/30V DC;
- Dimming output: 0~10V DC, 24mA/CH;
- Electrical life time: >100000;
- Mechanical life time: >100000.



### **KNX 6CH 1.5A MOSFET Dimming Actuator**

M/DM06.1

It has 6CH 1.5A output circuits, which supports multiple application functions.

- Support leading and trailing edge mode;
- Parallel channels can form heavy current output;
- Manual switching, dimming for each channel;
- Working current: 25mA/30V DC;
- Input voltage: AC100-240V (50/60Hz);
- Total output current: 9A Max.



### KNX 2CH 3A MOSFET Dimming Actuator

M/DM02.1

It has 2CH 3A output circuits, which supports multiple application functions.

- Support leading and trailing edge mode;
- · Parallel channels can form heavy current output;
- Manual switching, dimming for each channel;
- Working current: 20mA/30V DC;
- Input voltage: AC100-240V (50/60Hz);
- Total output current: 6A Max.



### KNX 1CH 1A Flush-mounted Dimming Actuator (EU)

M/FME1D.1

A smart dimming executive module installed in the wall box of the European standard panel, can be worked with the corresponding dry contact panel.

- With one 1A dimming control channel;
- With 4 dry contact switch signal input channels;
- 4 LED switch signal output channels;
- With programming button and programming indicator:
- Working current: 48mA/24V DC;
- Auxiliary current: 25mA/24V DC;
- LED output:12mA/CH.



#### **KNX 4CH 7A RGBW Driver**

M/DRGBW4.1

It has 4 RGBW driving channels, each channel has the output capacity of 7A. The four channels can be controlled separately or using RGBW combination control.

- PWM linear dimming;
- Dimming lower / upper limit setting;
- Dimming fade time setting;
- PWM constant voltage output;
- LED type: common anode RGBW LED strip or single LED;
- Working current: 10mA/30V DC;
- Input power (for LED): 12~40V DC.



### **IR Learner**

HDL-MIR01L.01

Learn various key commands (for example, AC, TV, DVD, satellite receiver, audio & video device, etc.).

- 2.0 USB Interface, driver free and easy to use:
- Range of carrier wave frequency: 38kHz±20%.



### **DMX512 Gateway**

M/DMX512.1

The gateway supports two-way control, and can record, play and delete DMX programs, can be widely used to control devices with built-in DMX protocol port for LED color control.

- 3 working modes: DMX recorder mode, DMX dimming mode (EIB to DMX) and DMX to EIB conver\_x0002\_sion mode (1bit, 1byte data point);
- Supported communication signal: DMX512-1990, ArtNet DMX, HDL NET DMX;
- Store and playback up to 24 programs, with up to 4 hours recording time;
- Working current: 5mA/30V DC;
- Auxiliary power supply: 40mA/24V DC.



### **KNX HVAC Module**

M/FCU01.10.1

It supports control of heating, cooling, high/medium/low fan speed. 7 independent floor heating control channels can be set.

- Up to 7 digital temperature sensors supported;
- 2.5m Digital Temperature Sensor (TS/C 1.0);
- 5 relay output channels;
- 2 DC0-10V output channels (10mA/CH);
- Detecting temperature range: -30 °C ~+100 °C;
- Working current: 20mA/30V DC
- Input voltage: 120V/240V AC(50/60Hz);
- Mechanica and Electronic life time: >100000.



### KNX Infrared Emitter

M/IRAC.1

The module can store up to 960 infrared codes. Used for general control, for example TV, DVD and other infrared receiving devices, and for controlling AC of any brand.

- Various control modes: Single emitting control, Repeat emitting control, Sequence emitting control;
- Support current detection with current up to 2A;
- Working current: 10mA/30V DC;
- Transmitting carrier wave frequency: 38kHz±20%;
- Emission distance: 7m;
- Current detection: <2A.



#### **KNX FCHC Actuator**

M/FCHC.4.1

Used for controlling air conditioner, fan, compressor and floor heating.

- Up to 6 digital temperature sensors can be connected;
- 2.5m Digital Temperature Sensor (TS/C 1.0);
- Working current: 20mA/30V DC;
- Input voltage: AC100-240V (50/60Hz);
- Output current: 8A (AC), 5A (DC).

Shading Controllers

Shading Controllers



### **4CH 10A Curtain Actuator**

M/W04.10.1

This series of product have the characteristics of high power (10A), low consumption and high reliability.

 Each channel can control the upward, downward and stop operation of the curtain;

• Working current: 12mA/30V DC;

• Input voltage: 120V/240V AC, 50/60Hz;

Electrical life time: >100000;Mechanical life time: >100000.



### **KNX Blinds Motor 220V AC**

M/AG40B.1

It is used to control the roller blind travel up/down, travel up/down to a specified percentage position.

- Automatic travel measurement and supports limit point presetting;
- Enable short drag to start the motor;
- Overheat protection and Power-down save function;

Working voltage: 21~30V DC;
Working current: 6mA / 30V DC;
Rated input current: 0.9A;

• Motor rotate speed: 22rpm.

### **Curtain Motor**

MWC1-KT.10

Open / close / stop / open or close at specific percentage, and support "Touch Start" by default.

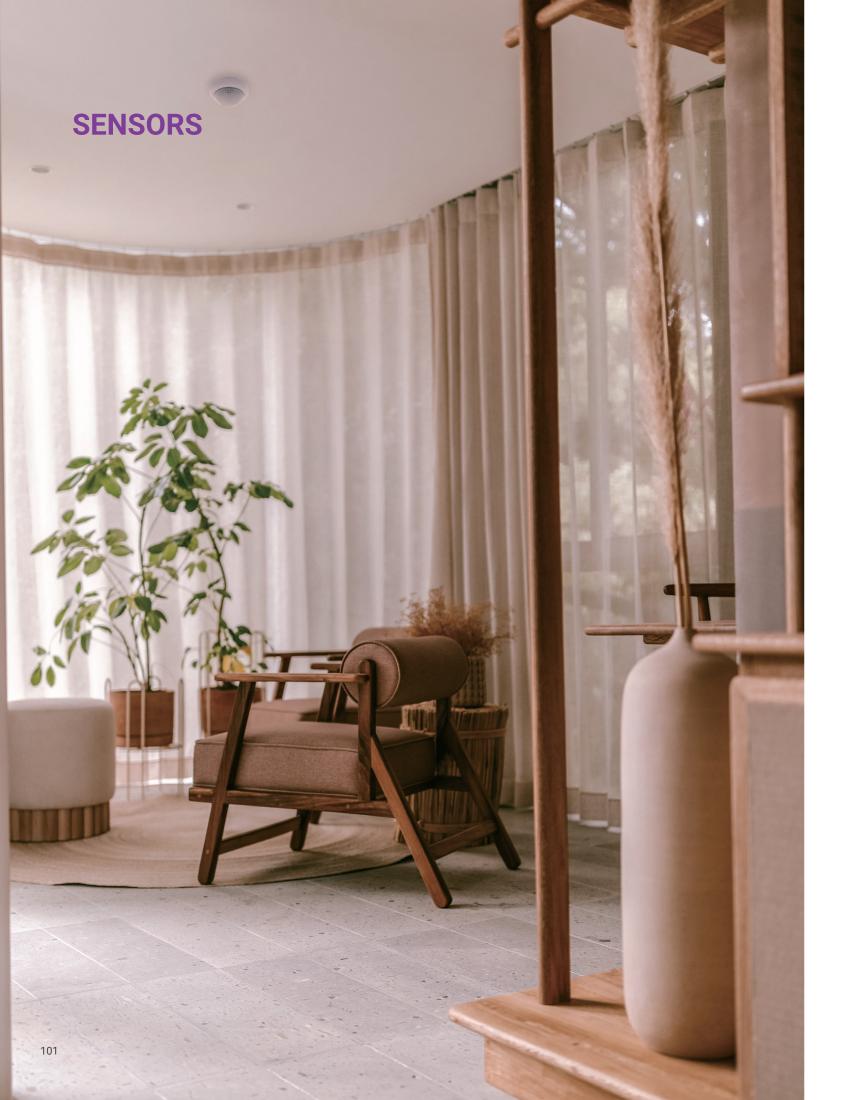
- Auto pause and modification while detecting obstacles;
- Automatically complete the preset travel;
- Compatible with bi-channel or multi-channel remote controllers;
- Motor input voltage: 100 240V AC, 50/60Hz;
- Motor rated consumption: 22W;
- Motor rotate speed: 90rpm;
- Motor sound level: < 30dB at silent mode



### **Curtain Remote Controller**

YR2188B

Curtain Remote Controller, voltage: 3.3V button cell, can control 6 motors.





### **KNX Presence Sensor**

It contains PIR sensor, temperature sensor and brightness sensor.

- 5 logical blocks and each block contains 10 object outputs;
- 1 sensor status feedback function block;
- 2 lighting control function blocks;
- 1 constant brightness automatic adjustment function block;
- 2 HVAC control blocks;
- Single mode and master / slave mode are supported;
- Working current: 7mA/30V DC.



### **KNX Ceiling Mount Indoor Microwave Sensor**

M/WS05.1-D

M/SIS05.1

The logic inputs include microwave sensor status, brightness value, temperature, dry contact input and external telegrams.

- With 2CH constant brightness control;
- 5 logic blocks and each block contains 10 object outputs;
- Single mode and master / slave mode are supported;
- 2CH dry contact can be set as dry contact and LED status display;
- Working current: 17mA/30V DC;
- Temperature detection range: -30°C~70°C;
- Brightness detection range: 0~15000LUX;
- Microwave sensing range: Φ16m.



### **KNX Ceiling Mount OmniSense Sensor**

M/HSD24.1

It can detect movement at a distance of up to 24 meters, 6 detection areas in total can be selected.

- With 2CH lighting control;
- With 2CH constant brightness control;
- 5 logic blocks and each block can control 10 object outputs;
- Single mode and master / slave mode are supported;
- 2CH dry contact can be set as dry contact and LED status display;
- Working current: 10mA/30V DC;
- PIR detection range: Φ30m.



### **KNX Mini PIR & Lux Sensor**

M/IS05.1

Contain PIR sensor, temperature sensor, Lux sensor and external telegram.

- With 2CH lighting control;
- With 2CH constant brightness control;
- 5 logic blocks and each block can control 10 object outputs;
- Single mode and master / slave mode are supported;
- Working current: 5mA/30V DC;
- PIR detection range: Φ8m.



### **KNX Ceiling Mount PIR & Lux Sensor**

M/HS05.1

It contains PIR sensor, temperature sensor, Lux sensor, dry contact and external telegram.

- With 2CH lighting control;
- With 2CH constant brightness control;
- 5 logic blocks and each block can control 10 object outputs;
- Single mode and master / slave mode are supported;
- 2CH dry contact can be set as dry contact and LED status display;
- Working current: 5mA/30V DC;
- PIR detection range: Φ8m.



### **KNX Ceiling Mount Outdoor Microwave Sensor**

M/WS05.1-A

Include LUX sensor, microwave sensor,humidity sensor, temperature sensor, dry contact and external telegram.

- 2CH constant brightness control function;
- 5 logic blocks and each block contains 10 target outputs;
- Single mode and master / slave mode are supported;
- 2 dry contact input interfaces can work as dry contact or LED indicators;
- Working current: 20mA/30V DC;
- Microwave sensing range: Φ28m (Installation height:3m).

# **INFRASTRUCTURE DEVICES / ACCESSORIES** HDL' KNX I EE HDL° M/LCR.1 0000000

# HDL'MIPRT.1

### KNX net/IP Router

M/IPRT.1

It enables data exchange between KNX net/IP line and TP1 bus, and data download and data monitoring are available via ETS software.

- Up to 4 channels for data debugging and monitoring;
- 6 dual-color LED lights indicate all communication status;
- Working voltage: 21~30V DC;
- Working current: 5mA/30V DC;
- Power consumption: typ. 520mW, max. 800mW.



### **KNX 960mA Power Supply Module**

It can provide up to 960mA current to KNX/EIB bus.

- Overload protection and over current protection;
- Output short circuit protection;
- Input voltage: AC100-240V(50/60Hz);
- Output voltage: 30V DC.



### **KNX USB Interface**

M/USB.1

It is a KNX system device with a USB interface that establishes bidirectional data transfer between the computer and the KNX Bus.

- Support KNX address management, application parameter management, and KNX Bus device diagnostics;
- Support telegrams with maximum 228 bytes length;
- Working voltage: 21~30V DC;Working current: 10mA/30V DC.



### **KNX Master/Slave Timer Controller**

M/TM04.1

M/P960.1

It is capable of running standard time as the master clock or slave clock.

- With 4 independent channels and real-time clock;
- Scene recall function;
- Working modes: Master /slave mode;
- Working voltage: 21~30V DC;
- Working current: 10mA/30V DC.



### **KNX Line Coupler**

M/LCR.1

It is used as a line coupler or repeater (for address extension).

- The coupler is connected to KNX zone/line to enable zone/line isolation;
- 6 LEDs display data transmission status;
- 1 LED for programming status display;
- Working voltage: 21~30V DC;
- Communication: KNX/EIB;
- Main line current: <30mA;
- Sub line current: 3mA.



#### KNX Cable

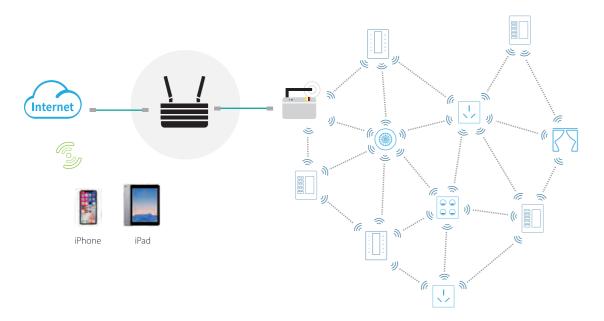
- 4 core shield cable: red, black, white, yellow;
- Strong signal transmission capability;
- · Strong anti-jamming capability;
- Twisted Pair: 2 twisted pair (red and black, white and yellow);
- Insulation resistance(70°C): >5X106ohm/km;
- Conductor resistance(20 °C): <35 ohm/km;
- Cable withstand voltage: AC 300V;
- Impedance: 120 ohm;
- Twisted No.: 40/m.



### A simple wireless smart automation system

Same as HDL Buspro, Buspro Wireless can connect with conventional devices, but no system communication wiring is required. You can simply install the system by replacing the original non-smart switches with HDL smart panels. Therefore, it can be used in new buildings and especially suitable for renovation projects of existing buildings.

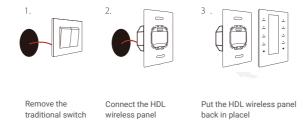
Buspro Wireless harnesses the power of mesh topology to connect every device. Every device in the system can both receive and forward signals. Devices have multiple signal input sources, so if one of the signal inputs fails, they can still receive signals from another device. In this way, users don't have to worry about signal problems.



### **Advantages**

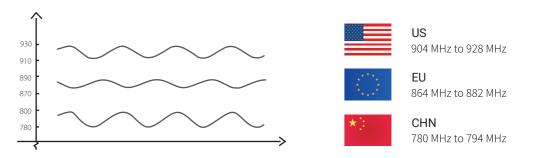
### Second Second

Buspro Wireless is a distributed smart system developed by HDL. To install Buspro Wireless, you just simply replace the original non-smart keypad with the one from HDL. As no wiring is required, it is suitable for both new buildings as well as existing ones.



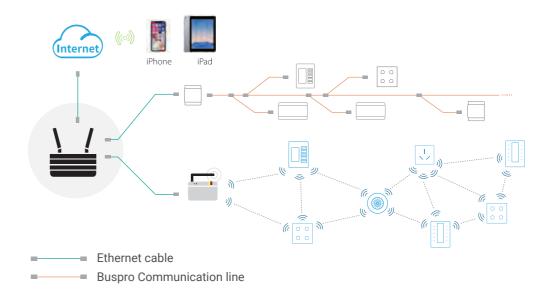
### **△** Stable and Dependable

It runs on sub-giga Hertz frequency. That means it doesn't have to jam with mobile phones, laptops and other wireless devices running on the 2.4GHz bandwidth. It adopts the robust mesh topology. That is every device in the system can receive and transmit signals. A reliable path is always available for communication.

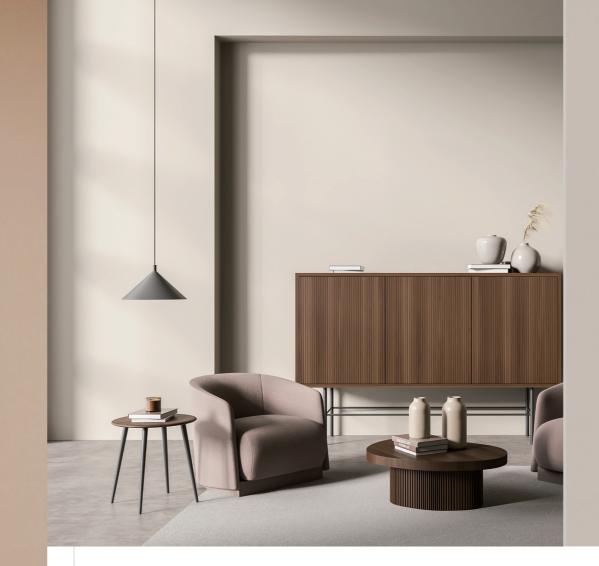


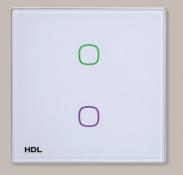
### Seamless Wired and Wireless Linkage

It can work with the wired Buspro system in the same project. The feature allows us to fully use the advantages of wired and wireless system, and makes the system more applicable.















A series of multi-functional touch control panels for home automation both in EU and US standard. The US standard has 2, 4 and 6 buttons while EU standard has only 2 and 4 buttons. iTouch is enclosed by a fine aluminum frame, and always used to control lighting, curtain, AC, scene, music, etc.

Working voltage: 5V DC Working current: 45mA/5V DC

Color: ● Black ○ White

### Features and Specifications

- Touch button with RGB backlight
- Adjustable RGB indicator color and brightness
- Customizable button icons;
- Support online upgrade.







### Wireless Power Interface EU (L+N Type)

HDL-MPWPID00LN.18-A

Used in conjunction with the wireless panel and provides working voltage for wireless panel.

• Input voltage: AC100-240V (50/60Hz);

• Maximum output current: 100mA / 5V DC

Fuse: 2A, aR type;

• Overheat protection for power interface chip.





### Wireless Power Interface US (L+N Type)

HDL-MPWPID00LN.16-A

Used in conjunction with the wireless panel and provides working voltage for wireless panel.

• Input voltage: AC100-240V (50/60Hz);

• Maximum output current: 100mA / 5V DC

Fuse: 2A, aR type;

• Overheat protection for power interface chip.



### DLP

DLP is a series of smart control panels with physical buttons and mono-color LCD display for home automation both in EU and US standard. With 8 control buttons and 2 page buttons, the panel has 4 general pages for lighting, curtains, etc. and dedicated pages for AC, floor heating and background music.

Working voltage: 5V DC; Working current: 55mA/5V DC.

Color: ● Black ○ White



- Built-in temperature sensor;
- Icon for Key Buttons can be changed;
- Support 147 languages;
- Customizable icons or captions;
- Support online upgrade.





### 3CH Wireless Dimming Power Interface EU (L+N Type)

HDL-MPWPID03LN.18-A

Used in conjunction with the wireless panel and provides working voltage for wireless panel. The power interface supports dimming and switch control.

- Provide DC 5V working voltage for wireless panels;
- 1st channel is for MOSFET dimming, 2nd and 3rd channel are for TRIAC dimming/switch;
- Short circuit protection and overheat protection;
   Input voltage: AC100-240V (50/60Hz);
- Fuse: 6A, aR type.





### 3CH Wireless Dimming Power Interface US (L+N Type)

HDL-MPWPID03LN.16-A

Used in conjunction with the wireless panel and provides working voltage for wireless panel. The power interface supports dimming and switch control.

- Provide DC 5V working voltage for wireless panels;
- 1st channel is for MOSFET dimming, 2nd and 3rd channel are for TRIAC dimming/switch;
- Short circuit protection and overheat protection;
- Input voltage: AC100-240V (50/60Hz);
- Fuse: 6A, aR type.







### 3CH Wireless Switch Power Interface EU (L+N Type)

HDL-MPWPIR03.18-A

Used in conjunction with the wireless panel and provides working voltage for wireless panel. The power interface supports 3CH relay output.

- Input voltage: AC100-240V (50/60Hz);
- Output current: 3A/CH (resistive load); 2A/CH (capacitive load);
- Mechanical and Electronic life time of relay: 1×105 times;
- Fuse: 10A, aR type;
- Power protection for power interface chip.





### 1CH Wireless Switch Power Interface EU with Temp. Sensor (L+N Type)

HDL-MPWPIR01T.18-A

Used in conjunction with the wireless panel and provides working voltage for wireless panel.

- Temperature measurement;
- Overheat protection for power interface chip;
- Input voltage: AC100-240V (50/60Hz);
- Output current: 16A;
- Mechanical and Electronic life time of relay: 1×105 times;
- tiirico,

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• Fuse: 2A, aR type.





### 3CH Wireless Switch Power Interface US (L+N Type)

HDL-MPWPIR03.16-A

Used in conjunction with the wireless panel and provides working voltage for wireless panel. The power interface supports 3CH relay output.

- Input voltage: AC100-240V (50/60Hz);
- Output current: 3A/CH (resistive load); 2A/CH (capacitive load);
- Mechanical and Electronic life time of relay: 1×105 times;
- Fuse: 10A, aR type;
- Power protection for power interface chip.





### 1CH Wireless Switch Power Interface US with Temp. Sensor (L+N Type)

HDL-MPWPIR01T.16-A

Used in conjunction with the wireless panel and provides working voltage for wireless panel.

- Temperature measurement;
- Overheat protection for power interface chip;
- Input voltage: AC100-240V (50/60Hz);
- Output current: 16A;
- Mechanical and Electronic life time of relay: 1×105 times:
- Fuse: 2A, aR type.

# GATEWAYS / DRY CONTACT MODULES







### Wireless Mesh Gateway

HDL-MCIP-RF02.10

A gateway based on MESH technology including three communication interfaces: RJ45, HDL Buspro, RF. It has three communication interfaces: RS485, Ethernet or RF.

- Mesh mode supported;
- Bridge (transparent transmission) mode supported;
- Encrypted wireless data transmission;
- Internal 433M wireless module, supports HDL remote control;
- Working voltage: 12~30V DC;
- Indoor communication distance: ≤50m (barrier free);
- Wireless transmitted power: +10 dbm.



### **Buspro/Wireless Gateway**

HDL-MBUS/GW-RF.40

Translate Buspro (wired) into Buspro Wireless.

- Support IEEE.802.15.4;
- Online update supported for both HDL-MBUS/GW-RF.40 and the device connected;
- Support easy programming;
- Power consumption: 1.15W;
- Output: 100mA/24V DC;
- Indoor communication distance: ≤ 30m;
- Wireless transmitted power: +10 dbm.

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# CONTROLLERS / ACTUATORS









### **1CH Wireless Dimming Actuator**

HDL-MPD01-RF.28

Contain 1-channel MOSFET dimming control and 4-channel dry contact. Working with wireless gateway, the actuator can be used for controlling different targets.

- 1CH MOSFET dimming output with output current less than 1A;
- Available with 4 default dimming curves.
- Users can also customize the dimming curves;
- 4CH dry contact can be used for dimming and switching;
- Input voltage: AC100-240V(50/60Hz);
- Maximum output current: 1A;
- Power consumption: 1W max.



### 4CH Wireless 0~10V Dimming Actuator

HDL-MPDA04-RF.28

With connection to electronic ballasts and working with wireless gateway, the actuator can be used for LED dimming.

- Available with 4 default dimming curves.
   Users can also customize the dimming
- Support 4CH dry contact inputs and 4CH 0-10VDC dimming outputs;
- Input voltage: AC100-240V(50/60Hz);
- Current of each 0-10VDC output channel: 0-30mA;
- Power consumption: 2.7W max.



### 1CH Wireless Switching Actuator

HDL-MPR01-RF.28

Contain 1-channel relay output and 4-channel dry contact.

- Support such functions as switch-on delay, switch-off delay and protection delay;
- 4CH dry contact can be used for dimming and switching;
- Input voltage: AC100-240V(50/60Hz);
- Output current: 10A(Resistive load); 5A (Capacitive load);
- Power consumption: 1.7W max.



### **2CH Wireless Switching Actuator**

HDL-MPR02-RF.28

Contain 2-channel relay output and 4-channel dry contact.

- Support such functions as switch-on delay, switch-off delay and protection delay;
- 4CH dry contact can be used for controlling targets like dimming;
- Input voltage: AC100-240V(50/60Hz);
- Output current: 5A(Resistive load); 2.5A (Capacitive load);
- Power consumption: 1.45W max.



#### **Wireless IR Emitter**

HDL-MIR01R-RF.10

Enable IR control of devices such as air conditioners, TVs, fans, etc.

- Directly drive LED emission tube;
- 3 IR emission channels;
- Support 10 devices and 100 infrared learning codes;
- Support a variety of remote control types;
- Built-in clock for timing, supports 16 alarm reminder control;
- Temperature detection and broadcast;
- Working voltage 5V DC (From USB);
- Working current 20mA / 5V DC.



### **1CH Wireless Curtain Actuator**

HDL-MPC01-RF.28

Contain 1-channel curtain control and 4-channel dry contact.

- Open/close and stop/step control;
- 4CH dry contact can be used for dimming and switching;
- Input voltage: AC100-240V(50/60Hz);
- Output channel: 5A;
- Power consumption: 1.45W max.





### Wireless Ceiling Mount Ultrasonic & PIR Sensor

HDL-MSPU05-RF.1C

8 logic conditions including PIR sensor, luminance sensor, ultrasonic sensor, manual button, ultrasonic, universal switch, etc.

- Support 1 channel 5A relay output;
- 24 logic blocks, each of which can be set to 20 target;
- Security protection (security module required);
- Working current: 5mA/220V DC;
- Brightness detection range: 0~300LUX;
- PIR detection range in diameter: 7m;
- Ultrasonic detection range in diameter: 3m.



### **Wireless PIR & Lux Sensor**

HDL-MSPU03-BRF.10

Built-in infrared motion sensor, illuminance sensor, temperature sensor.

- Brightness detection and temperature detection;
- Battery level detection;
- Timing broadcast function;
- Adjustable sensing area;
- Working voltage: 3V 1400mAh;
- Working current: 21mA;
- Standby current: 24μA;
- PIR detection range in diameter: 7m.

### **HDL LIGHTING RADIANCE SERIES**



119 120

150+



### **Bright Series**

A luminous arc in the shape of a hill.



Glare-free Reflector

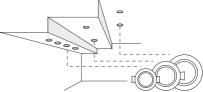


Modular design for easy installation



Fog-resistant more suitable for

kitchen and bathroom



Ф55mm、Ф75mm、Ф95mm

WhiteSilver

Tile





### **HD-TH3055Y**

Power: Max 7W

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 15°/24°/36° Cut Size: Φ55mm



### **HD-TH3075Y**

Power: Max 12W

CCT: 2700K/3000K/3500K/4000K/5000K

Black

CRI: >90

Input Voltage: AC220-240V Beam Angle: 15°/24°/36°/50°

Cut Size: Φ75mm







Elliptical hole

Small Circular hole

Trimless Round Bezel









### HD-TH3075Y-S

Power: Max 9W

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 15°/24°/36°/50°

Cut Size: Φ75mm



### HD-TH3095Y

Power: Max 25W

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 15°/24°/36°/50°

Cut Size: Ф95mm







### HD-TH4075/HD-TH4075Y

Power: Max 7W

Adjustable CCT: 2800K-6000K HD-TH4075

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 36°/60° Cut Size: Φ75mm



### HD-YM3055Y

Power: Max 7W

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC220-240V Beam Angel: 15°/24°/36° Cut Size: Φ55mm



**HD-YM3075Y** 

Power: Max 12W

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 15°/24°/36°/50°

Cut Size: Φ75mm



### HD-TH4095/HD-TH4095Y

Power: Max 15W

Adjustable CCT: 2800K-6000K HD-TH4095

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 36°/60° Cut Size: Φ95mm



### HD-YM3075Y-S

Power: Max 9W

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 15°/24°/36°/50°

Cut Size: Φ75mm



### **HD-YM3095Y**

Power: Max 25W

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 15°/24°/36°/50°

Cut Size: Φ95mm

WhiteSilver



### HD-TH3055

Power: Max 7W

Adjustable CCT: 2800K-6000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 24°/36° Cut Size: Φ55mm



HD-TH3075-S

Power: Max 9W

Adjustable CCT: 2800K-6000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 24°/36° Cut Size: Φ75mm



### HD-TH3075

Power: Max 12W

Adjustable CCT: 2800K-6000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 24°/36° Cut Size: Φ75mm



HD-TH3095

Power: Max 25W

Adjustable CCT: 2800K-6000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 24°/36° Cut Size: Φ95mm



### HD-YM3055

Power: Max 7W

Adjustable CCT: 2800K-6000K

CRI: >90

Input Voltage: AC220-240V Beam Angel: 24°/36° Cut Size: Φ55mm



Black

HD-YM3075-S

Power: Max 9W

Adjustable CCT: 2800K-6000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 24°/36° Cut Size: Φ75mm



HD-YM3075

Power: Max 12W

Adjustable CCT: 2800K-6000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 24°/36° Cut Size: Φ75mm



### HD-YM3095

Power: Max 25W

Adjustable CCT: 2800K-6000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 24°/36° Cut Size: Φ95mm



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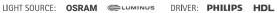


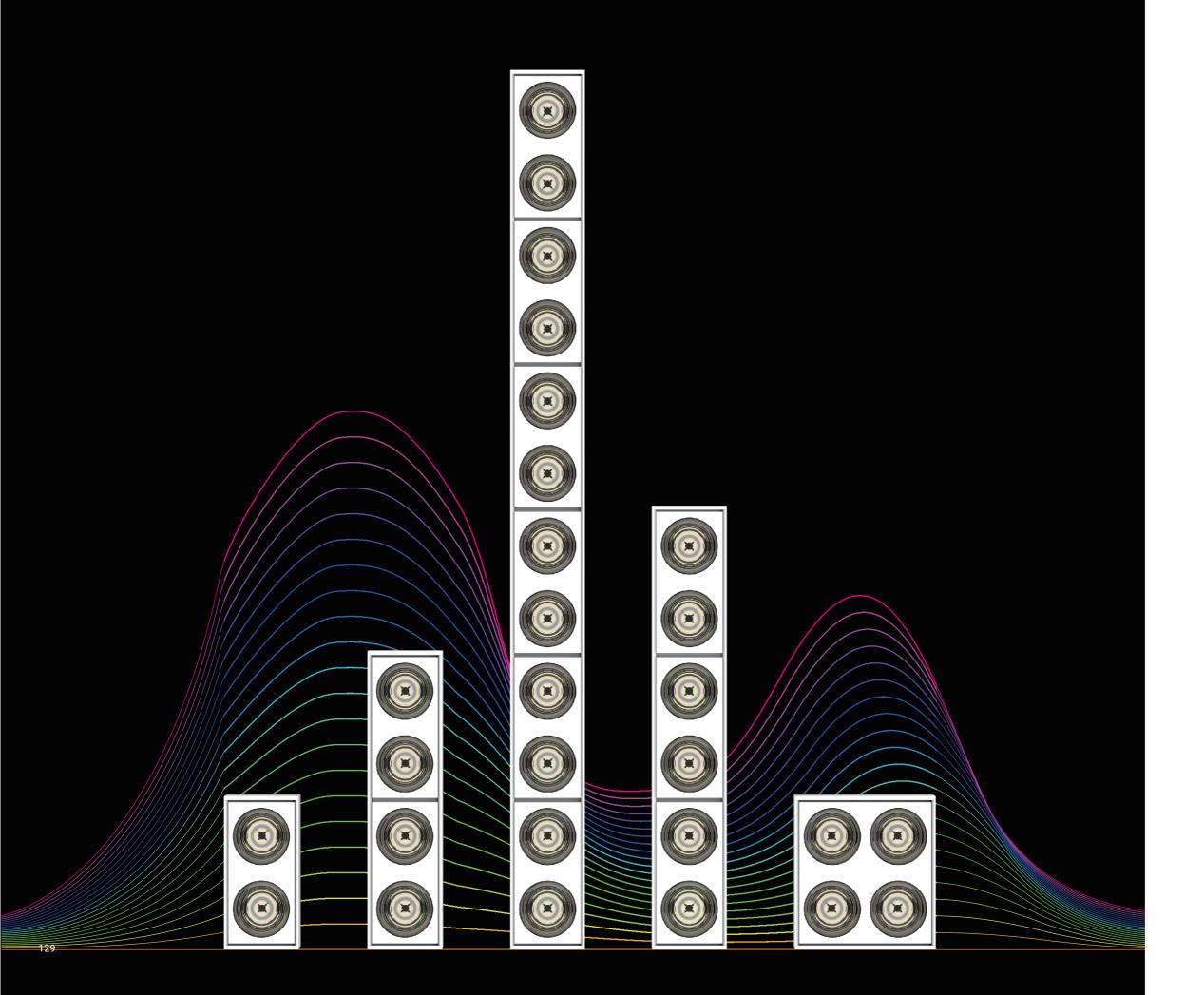












### **Glow Series**

Less is more

Triple glare-free effect

**∵** URG < 15

Multiple installation methods





### HD-TH6002/HD-TH6002F

Power: 4W

Adjustable CCT: 2800K-6000K

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 15°/25°/30° Cut Size: 72×42mm



### HD-TH6006/HD-TH6006F

Power: 12W

Adjustable CCT: 2800K-6000K

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 15°/25°/30° Cut Size: 204×42mm



### HD-TH6012/HD-TH6012F

Power: 24W

Adjustable CCT: 2800K-6000K

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 15°/25°/30° Cut Size: 404×42mm



### HD-TH6004/HD-TH6004F

Power: 10W

Adjustable CCT: 2800K-6000K HD-TH6004

CRI: >90

Input Voltage: AC220-240V Beam Angle: 15°/25°/30° Cut Size: 138×42mm



### HD-TH6018/HD-TH6018F

Power: 36W

Adjustable CCT: 2800K-6000K

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 15°/25°/30° Cut Size: 604×42mm



### HD-YM6002/HD-YM6002F

Power: 4W

Adjustable CCT: 2800K-6000K

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 15°/25°/30° Cut Size: 75×40mm



### HD-YM6004/HD-YM6004F

Power: 10W

Adjustable CCT: 2800K-6000K

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 15°/25°/30° Cut Size: 142×40mm



### HD-YM6006/HD-YM6006FF

Power: 12W

Adjustable CCT: 2800K-6000K

TID TWOODO

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 15°/25°/30° Cut Size: 208×40mm



### HD-YM6012/HD-YM6012F

Power: 24W

Adjustable CCT: 2800K-6000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 15°/25°/30° Cut Size: 408×45mm



### HD-YM6018/HD-YM6018F

Power: 36W

Adjustable CCT: 2800K-6000K

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 15°/25°/30° Cut Size: 606×45mm







### HD-LS6004/HD-LS6004F

Power: 10W

Adjustable CCT: 2800K-6000K

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 15°/25°/30° Cut Size: 154×64mm



### HD-LS6006/HD-LS6006F

Power: 12W

Adjustable CCT: 2800K-6000K

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 15°/25°/30° Cut Size: 220×64mm





### HD-MZ6002/HD-MZ6002F

Power: 4W

Adjustable CCT: 2800K-6000K

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 15°/25°/30°



### HD-MZ6004/HD-MZ6004F

Power: 10W

Adjustable CCT: 2800K-6000K

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 15°/25°/30°







### HD-MZ6006/HD-MZ6006F

Power: 12W

Adjustable CCT: 2800K-6000K

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 15°/25°/30°



### HD-MZ6064/HD-MZ6064F

Power: 10W

Adjustable CCT: 2800K-6000K

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 15°/25°/30°





### HD-MZ6012/HD-MZ6012F

Power: 24W

Adjustable CCT: 2800K-6000K

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 15°/25°/30°



### HD-DZ9006/HD-DZ9006F

Power: 18W

Adjustable CCT: 2800K-6000K

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 15°/25°/30°



### HD-DZ9010/HD-DZ9010F

Power: 30W

Adjustable CCT: 2800K-6000K

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 15°/25°/30°



### HD-DZ9012/HD-DZ9012F

Power: 36W

Adjustable CCT: 2800K-6000K HD-DZ9012

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC220-240V Beam Angle: 15°/25°/30°



Adjustable CCT: 2800K-6000K

CCT: 2700K/3000K/3500K/4000K/5000K CRI: >90

LM: 120LM

Input Voltage: AC220-240V Beam Angle: 15°/24°/36° Cut Size: 26×26mm



### HD-TH5002/HD-TH5002F

Power: 4W

Adjustable CCT: 2800K-6000K

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90 LM: 240LM

Input Voltage: AC220-240V Beam Angle: 15°/24°/36° Cut Size: 51×26mm



### HD-TH5012/HD-TH5012F

Power: 20W

Adjustable CCT: 2800K-6000K

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90 LM: 1200LM

Input Voltage: AC220-240V Beam Angle: 15°/24°/36° Cut Size: 270×26mm



### HD-YM5006/HD-YM5006F

Power: 10W

Adjustable CCT: 2800K-6000K

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90 LM: 600LM

Input Voltage: AC220-240V Beam Angle: 15°/24°/36° Cut Size: 145×32mm



### HD-TH5064HD-TH5064F

Power: 8W

Adjustable CCT: 2800K-6000K

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90 LM: 480LM

Input Voltage: AC220-240V Beam Angle: 15°/24°/36° Cut Size: 51×46mm



### HD-TH5006/HD-TH5006F

Power: 10W

Adjustable CCT: 2800K-6000K

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90 LM: 600LM

Input Voltage: AC220-240V Beam Angle: 15°/24°/36° Cut Size: 139×26mm



### HD-YM5012/HD-YM5012F

Power: 20W

Adjustable CCT: 2800K-6000K

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90 LM: 1200LM

Input Voltage: AC220-240V Beam Angle: 15°/24°/36° Cut Size: 275×32mm















HDL'

LIGHT SOURCE: OSRAM CLUMINUS DRIVER: PHILIPS HDL

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WhiteSilver



### CX5001/CX5001F

Power: 6W

Adjustable CCT: 2800K-6000K

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC48V Beam Angle: 16°/24°/36°



CX5002/CX5002F

Power: 9W

Adjustable CCT: 2800K-6000K

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC48V Beam Angle: 16°/24°/36°





### CX5003/CX5003F

Power: 12W

Adjustable CCT: 2800K-6000K

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC48V Beam Angle: 16°/24°/36°



### CX6001/CX6001F

Power: 6W

Adjustable CCT: 2800K-6000K

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC48V Beam Angle: 120°



### CX7001/CX7001F

CX6002/CX6002F

Input Voltage: AC48V

Beam Angle: 120°

Adjustable CCT: 2800K-6000K

CCT: 2700K/3000K/3500K/4000K/5000K

Power: 12W

CRI: >90

Power: 10W

Adjustable CCT: 2800K-6000K

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC48V Beam Angle: 12°/34°/55°



Black

CX6003/CX6003F

Power: 20W

Adjustable CCT: 2800K-6000K

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC48V Beam Angle: 120°



### CX7002/CX7002F

Power: 20W

Adjustable CCT: 2800K-6000K

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC48V Beam Angle: 12°/34°/55°









### CX8001/CX8001F

Power: 6W

Adjustable CCT: 2800K-6000K CX8001

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC48V Beam Angle: 16°/24°/36°



Power: 10W

Adjustable CCT: 2800K-6000K

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90

Input Voltage: AC48V Beam Angle: 12°/34°/55°



CX9002/CX9002F

Power: 10W

Adjustable CCT: 2800K-6000K CX9002

CCT: 2700K/3000K/3500K/4000K/5000K CX9002F

CRI: >90

Input Voltage: AC48V Beam Angle: 120°





**Pre-buried Magnetic Track Light** 

CX-YM1000 1m CX-YM2000 2m



**Surface Mounted Magnetic Track Light** 

CX-MZ1000 1m CX-MZ2000 2m



CX5003/CX5003F

CX-DZ1000 1m CX-DZ2000 2m









**Corner Accessories** 

CX-P100 plane CX-L100 facade









### **Doubled CCLED Strip Light**

Item No: LS2760 Rated Power: 12W/m CCT: 2700K-6500K

CRI: >90

LED: SMD2835

Pieces per meter: 192 pcs/m Input Voltage: 24V DC Beam Angle: 120°

Paste Way: The back is fixed with 3M double-sided

tape or fixed by buckles



Item No: LT3080 Rated Power: 9.6W/m

CCT: 2700K/3000K/3500K/4000K/5000K

**Single-color Tube Sleeve LED Strip Light** 

CRI: >90 LED: SMD2835

Pieces per meter: 120 pcs/m Input Voltage: 24V DC Beam Angle: 120°

Paste Way: The back is fixed with 3M double-sided

tape or fixed by buckles



### Single-color LED Strip Light 4.8W/m

Item No: L2060

Rated Power: 4.8W/m

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90 LED: SMD2835

Pieces per meter: 120 pcs/m Input Voltage: 24V DC Beam Angle: 120°

Paste Way: The back is fixed with 3M double-sided

tape or by buckles

















LIGHT SOURCE: OSRAM CLUMINUS DRIVER: PHILIPS HDL



### Single-color LED Strip Light 9.6W/m

Item No: L2080 Rated Power: 9.6W/m

CCT: 2700K/3000K/3500K/4000K/5000K

CRI: >90 LED: SMD2835

Pieces per meter: 120 pcs/m Input Voltage: 24V DC Beam Angle: 120°

Paste Way: The back is fixed with 3M double-sided

tape or fixed by buckles



### **RGBCW LED Strip Light**

Item No: LPS565 Rated Power: 19.2W/m CCT: 2700K-6000K CRI: >90

LED: SMD5050 Input Voltage: 24V DC Beam Angle: 120°

Paste Way: The back is fixed with 3M double-sided

tape or fixed by buckles

### **Battery Energy Storage System**

The Second Generation



### **Single-phrase Inverter 5KW**

ME-GSE-S5K

Our single-phrase Inverter harnesses the sun's energy efficiently and sustainably. It achieves peak efficiency at 97.6%, ensuring optimal power utilization. In addition, with superior MPPT efficiency exceeding 99.9%, it ensures top-tier performance under diverse conditions, maximizing solar energy use sustainably.

- · High conversion efficiency and fast start-up;
- · Strong adaptability and stability with load;
- Remotely power-on & off via cloud platform & mobile App;
- Three basic modes for end users to check via mobile App / the display screen of the product, including SELF CONSUME, Backup Power, PEAK SHIFT



### Battery PACK-5.1KWH-80S-20A-F

ME-GSE-B5K

The battery is a rechargeable lithium iron phosphate battery. This product has to be paired with the specified BMS control module to work properly. And it is used with special inverter for power and storage.

- Battery Type: LiFePO4;
- Nominal Voltage: 256V;
- Rated Energy: 5.12kWh;
- Rated Capacity: 20Ah;
- Dimension: 588mm\*422mm;
- Net Weight: 49kg;
- Protection Degree: IP65



### **BMS Control Module 15KW**

ME-GSE-BMS15K

The 15KW BMS control module controls the battery for charge/discharge management.

### Charge Mode

- Input Voltage Range: 360-1000V;
- Max. Input Current: 20A;
- Max. Output Current: 10A;

### Discharge Mode

- Input Voltage Range: 200-876V;
- Max. Input Current: 10A;
- Output Voltage Current: 200-900V; Output Voltage Current: 360V-1000V;
  - Max. Output Current: 20A



### **Power Guardian**

ME-GSE-LCC10K

It manages and distributes power from inverters, grids, and generators in a unified way; it needs to be paired with a specific inverter to work properly.

- Dimension: 280 \* 500 \* 110mm;
- · Max. Output Rated Power: 10kW;
- Output Channel Number: 4;
- Max. Output Rated Power for per relay: 5kW

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**BATTERY ENERGY STORAGE SYSTEM** 

### **Battery Energy Storage System**

The First Generation



### Single-phase inverter 5KW

GSE MIS5000D.1

An electrical equipment which converts DC voltage, almost from batteries, into standard household AC voltage so that it is able to be used by common appliances.

- · Topology: Battery Isolation;
- Communication: RS485;
- · High conversion efficiency and fast start-up;
- Remotely power-on & off via cloud platform & mobile App;
- Strong adaptability and stability with load;
- Three basic modes for end users to check via mobile App / the display screen of the product, including SELF CONSUM, EBATTERY PRIORITY PEAK SHIFT



### Single-phrase Inverter 3KW

GSE MIS3680D.1

It is an electrical equipment which converts DC voltage, almost from batteries, into standard household AC voltage so that it is able to be used by common appliances.

- · Topology: Battery Isolation;
- Communication: RS485;
- High conversion efficiency and fast start-up;
- Remotely power-on & off via cloud platform & mobile App;
- · Strong adaptability and stability with load;
- Three basic modes for end users to check the product, including SELF CONSUME, BATTERY PRIORITY, PEAK SHIFT.



### Three-phrase Inverter 10KW

GSE MIS10000KT.1

It is an electrical equipment which converts DC voltage, almost from batteries, into standard household AC voltage so that it is able to be used by common appliances.

- Topology: Battery Isolation;
- Communication: RS485;
- High conversion efficiency and fast start-up;
- Remotely power-on & off via cloud platform & mobile App;
- · Strong adaptability and stability with load;
- Three basic modes for end users to check the product, including SELF CONSUME, BATTERY PRIORITY, PEAK SHIFT.



### Battery PACK-5.1KWH-16S-100A-F

GSE MBP051KWHF.1

It is a rechargeable lithium iron phosphate battery. Together used with the specific inverter, the product is applicable for power supply and storage.

- Battery type: LiFePO4;
- Rated capacity: 100Ah;
- Rated energy: 5.12kWh;
- Nominal voltage: 51.2Vd.c.



Smart Mirror Intercom



### **RAYSGEM Loona Smart Mirror**

HDL-N1

With a 13.3 inch and 1920\*1080 Resolution display, the smart mirror is able to trigger scene control by Logic module.

 Input voltage: AC 100-240V 2A Max. (50/60Hz);

• Power: ≤36W;

• Operation system: Android OS;

• Bluetooth: Bluetooth 4.0;

• Working life time: ≥15000 hours.



### **RAYSGEM M1 Smart Mirror**

HDL-N1

With a 21.5 inch and 1920\*1080 Resolution display, the smart mirror is able to trigger scene control by Logic module.

 Input voltage: AC 100-240V 2A Max. (50/60Hz);

• Power: ≤45W;

• Operation system: Android OS;

• Bluetooth: Bluetooth 4.0;

• Working life time: ≥25000 hours.











IP Villa Outdoor Station

IP Villa Outdoor Station

Face Recognition
Outdoor Station

Digital Face Recognition Outdoor Station

ion Apartment
Outdoor Station









Intercom Master Station

Android 10 inch indoor monitor

Android 7 inch indoor monitor

Android 7 inch indoor monitor

### **Speaker**











6.5" Ceiling Speaker

8" Ceiling Speaker

8" Wall Speaker

2x8" Wall Speaker

6.5" Outdoo Wall Speaker

**Dahua CCTV Camera and NVR Security Detectors/Gadgets** 





H-IPC-HFW3241TP-ZAS



2MP IR Vari-focal Dome WizSense Network Camera

DH-IPC-HDBW3241RP-ZAS



2MP 4x Starlight PTZ

DH-SD22204UE-GN

Network Camera



4MP 4x PTZ Network Camera

DH-SD22404T-GN



4 Channel Smart 1U 1HDD

Network Video Recorder

DHI-NVR4104-4KS2L





Network Video Recorder

DHI-NVR4208-8P-4KS2L



16 Channel Compact 1U 1HDD 8PoE Network Video Recorder

DHI-NVR4116HS-8P-4KS2L



32 Channel 1U 2HDDs Network Video Recorder DHI-NVR4232-4KS2L



### Recessed Mount LifeBeing & LUX Presence Sensor MSA021D RC

Built in daylight Lux sensor for energy saving, and built in 5.8G Hz Microvave Lifebeing detector to detect movement, slight motion and breathing to realize truly presence detection.

- Mounting height: 2.5-4M;
- Detection range: Movement: 3-4m (Speed: 0.3m/s);
- Slight motion: 3-4m;
- Breathing: 2-3m;
- Working Voltage:12/24V DC.



### Recessed Mount LifeBeing & LUX Presence Sensor

Built in daylight Lux sensor, and built in 24G Hz Microvave Lifebeing detector to detect movement, slight motion and breathing to realize truly presence detection.

- Mounting height: 2.5-4M;
- Detection range: Movement: 3-4m (Speed: 0.3m/s);
- Slight motion: 3-4m;
- Breathing: 2-3m;
- Working Voltage:12/24V DC.

### **Security Detectors/Gadgets**











Combustion Gas Detector

Combustion Gas Detector

Smoke and Heat Detector

Smoke Detector

Curtain PIR Detector









Pet Friendly TriTech PIRMicrowave Detector

PIR Detector

Glass Breaker Detector

Door Magnetic











Door magnetic

Door magnetic

Window Magnetic

Water Leakage Detector

Smoke Detector

