Company Profile

Founded in 1985 and headquartered in Guangzhou, HDL is a global company that manufactures building automation products and professional stage lighting equipment.

All HDL systems and products are geared towards sustainable growth and sustainable savings. We at HDL know that economic and environmental balance is essential. We are proud that through our innovative products people can optimise their energy efficiency, while ensuring convenience comfort and security.

Having an extensive network of offices around the world and a presence in over 88 countries HDL is truly international. These countries are served by more than 200 well established distributors, and over 1300 dealers/installers. The reason for our global reach is simple, HDL invests in tomorrow. Our team of 70 research and development engineers have produced countless innovative products; a perfect example of this is the DLP Panel which made a highly complex building automation system easy for end users to understand.

Our prime position has not gone unnoticed. We have received numerous awards internationally, and have been recognised by KNX with the coveted ‘Application Award’. Owning our own factory is another source of pride for HDL. It allows us to make quick decisions and tailor products to the needs and requirements of our customers.

Although HDL leads the market we are not complacent. During manufacture we inspect each and every product, ensuring that it reaches its end user in perfect condition. After the inspection our products are then rigorously tested in various demanding environmental conditions. Because of this quality is guaranteed, and reliability assured.

Please, find more about us in www.hdlautomation.com
Advantages of KNX System

What does the KNX system offer?

System Integrators

Utilizing KNX intelligent building system technology will help you achieve professional success! The demands of your customers are constantly changing. In order to be independent, they need promising results by employing a compatible system solution. Convenience, low energy consumption, and high reliability are the basic requirements of customers. With constantly innovative KNX residence and building control, you can accomplish a multitude of functions.

High Technology

- Independent installation technology and modern installation technology that accords to the European standard (CEN/EN 50090 and CEN EN 13321–1) and international standard (ISO/IEC 14543–3).

Flexibility

- It ensures high flexibility when it comes to preliminary installation schemes without affecting building modernization.
- KNX installation can easily adapt to new applications and can be easily extended.

Extensibility

- KNX certification process ensures the interoperability and intercommunication of different products from different manufacturers in different applications.
- The worldwide KNX standard is used to integrate different applications and products.

Low Risk

- The risk of electrical fires is reduced because of the lowered amount of electrical circuits used. Because of this, KNX can increase security and comfort.

Useful Installation

- Assembly time is reduced due to convenient cable arrangement.
- New components can be easily connected to an existing bus installation.

User-friendly Tools

- By working with user-friendly tools, relevant planning, design, device introduction and diagnosis is easily achieved.
- ETS is a unique independent engineering tool focused on the manufacturer.

Why do end users select KNX?

Safety

- Alert network
  Even when you are away, KNX is always in an alert state. The automatic intelligent residence network stays connected to the motion detector, the glass breakage sensor, the shading control, the emergency switch and your mobile phone. It ensures your protection and your safety day in, day out!

- Quick response
  In the event of a fire the smoke detector enables the fire alarm to alert not only you, but also other residents. Similarly, water or gas leakage may also be detected and immediately reported before damage occurs.

- Everything is under control
  Enjoy your vacation without worrying about the safety of your home. KNX turns your home into a castle that lets you relax in comfort and security.

Comfort

- Daily life
  With KNX you don’t have to waste your valuable time on daily chores, regard KNX as your reliable assistant. Simply tell the system what it is to be monitored and controlled, and the intelligent residence automation system will manage the remaining tasks and automatically notify you with the results.

- Customized comfort
  At right, you only need to press a button to get perfect light settings in your living room. When inviting guests, you can set the background light and music according to the occasion.

- Automated management
  Automatic blinds that adjust depending on room light intensity give a seamless and elegant solution to end users, when coupled with a centralized lighting control simplicity is guaranteed.

- Overall management
  One central information panel is utilized.

High Efficiency

- Energy conservation
  Through saving energy we ensure future generations have a bright future, and save energy costs. KNX is at the forefront of energy saving. Be it shading, boiler, room temperature controller, window sensor or light sensor, all can interconnect through KNX. The network can automatically reduce energy consumption, and heat consumption, making you achieve better power consumption rates.

- Next-generation technology
  A house can last a lifetime without being outdated. With KNX even though new generation devices will most likely supersede the old, the actual KNX system will remain. The system will help adapt your residence automation system, to meet your ever-changing demands. In doing so it may increase the long-term value of your property, and reduce the expense of upgrading in the future.

- Customized
  KNX is considered more than just an automation solution. We prefer to call it a modular system technology, and it has some prominent advantages. From being able to extend the network of automation at anytime, from small or large projects to restore or newly built buildings, KNX always has the best customized products to ensure the most effective solutions.

Promising Investment

- Value-preserved system
  KNX is the unique residence automation system that complies with the requirements of European (EN50090) and international (ISO/IEC 14543) standards. Its consistency confirms the quality and value of KNX technology. It provides quality assurance for owners. KNX is an open and extensible system easily used by users. It is ready set to provide new-generation products.

- Open system
  KNX lets you select from over 200 device manufacturers that provide various KNX certified and compatible products. From this immense range you can select the product that best applies to your solution.

- The demands of tomorrow
  The future is unknown but KNX guarantees an independent future. Old age, infirmity or disability can hamper independence. KNX makes household tasks obstacle and problem free, with the ability to integrate emergency buttons or house monitoring safely can be assured.
Elevator Lights

KnX Applications
- Lobbies / Public corridors / Elevator halls
- Offices
- Meeting rooms / Multi-function Halls / Banquet Halls
- WCs / Bathrooms / Dressing rooms
- Garage or parking lots
- Outdoor landscape Lighting
- Malls
- Airports
- Clubs
- Convention Centers
- Museums
- Stadiums
- Schools
- Hospitals
- Subways / Stations

Main Control Targets
- Lighting
- Shale and blinds
- Temperature control

Main Control Mode
- Manual control
- Timer
- Sensor control
- Lux control
- Scene control

- To trigger pre-set scenes such as the welcome scene, daytime scene, or night scene, simply activate them with one touch. There is no need to repeatedly program the system to perform the same action.
- From adjusting lighting, and HVAC, to raising and lowering curtain and blinds, the intelligent control panel or touch screen covers all areas and situations.
- The lighting and conditioning is activated when the room is occupied, when the room detects it is vacant it is able to turn off part or all of the system depending on the programming.
- The system is also able to automatically control the lighting based on the amount of natural light present, in doing so energy conservation is maximised, and electrical costs are reduced.
- During the summertime, the system will regulate the scene/scene automatically. This blocks the solar limitation and keeps the indoor temperature relatively low, in winter the system works to increase the indoor temperature to reduce heating costs and energy consumption.
Main Control Targets

- Lighting
- Sound and srhie
- Temperature control
- Multi-media control

Main Control Modes

- Manual control
- Central control
- Body movement control
- Luma control
- Sound control

- When displacement induction is triggered in the office space the lighting is automatically turned on, and the welcome mode is activated.

- Through the intelligent panel or remote control, the lighting can be turned on/off, the brightness adjusted, blinds and curtains manipulated, and scenes chosen. Common scenes for offices include meeting mode, rest mode, and working mode.

- While the intelligent panel or remote control can manage the environment, automatic control of the indoor lighting, curtains, and temperature ensures a hassle-free office atmosphere.

Meeting Rooms, Multi-Function Halls, Banquet Halls

Main Control Targets

- Lighting
- Sound and srhie
- Temperature control
- Multi-media control

Main Control Modes

- Manual control
- Timing control
- Body movement control
- Luma control
- Sound control
- Performance control

- The control of lighting, air conditioning, curtains, and projection equipment can all be accomplished from one intelligent panel. Via the intelligent panel various scenes can be enabled, common scenes include meeting, banquet, speech, and rest.

- With an intelligent panel, it is possible to partition a room into several areas. The lighting, curtains, and air conditioning can be controlled via area, or as a group of areas. This level of convenience and control gives the user a unique experience and tailors the environment to their specifications.

- Cost-saving is also achieved through the use of sensors that activate the lighting and air conditioning automatically when a person enters. When the room is empty lighting and A/C is deactivated.
Main Control Targets

- Lighting
- Exhaust fan
- Temperature control

Main Control Modes

- Manual control
- Central control
- Body wash control

- Automatically activate the lighting, air conditioning, and exhaust fan when the room is occupied. When the room becomes vacant the lights, A/C and exhaust fan will deactivate automatically.

- The exhaust fan also has the ability to be intermittently activated during the night.

Main Control Targets

- Lighting
- Exhaust fan
- Water pump

Main Control Modes

- Manual control
- Timing control
- Smoke control
- Copy/contamination
- Fire control
- Linkage control

- Turn on different lighting modes based on areas divided through manual control, timing control, and remote centralized control from the intelligent panel.

- The lighting can be turned on in one specific area if the luminance sensor detects a low light reading. This application is especially useful in large installations where varied weather conditions may cause insufficient natural illumination.

- Automatic control of fans and exhaust fans can provide the optimum environmental conditions for underground garages.

- When the system detects carbon dioxide via its air quality sensor, the relevant exhaust fan will automatically remove the gas from the area.

- Emergency lighting serves a dual role as normal lighting, the lighting can also be interlinked to the firefighting system in case of emergency.

- Linkage control with the parking management system allows vehicles to follow lane guidance lights to their designated parking space.
Outdoor Landscape Lighting

- Manage outdoor lighting seamlessly with full manual control, alternatively use an intelligent panel or touch screen for remote control.
- Turn on outdoor floodlighting at a fixed time or use a remote control, when night falls turn off non-essential circuits.
- Hydraulically control water circulation, soil moisture, sprinklers, fountains and landscape lighting through integrating with their system management programmes. Through this controlled control, scenes can be created that exemplify architectural style, landscape or seasons.
- Scenes can be activated with a simple one-key switch and can be changed instantly. This immense level of management provides optimum control and energy savings.

Malls

- Different lighting and HVAC parameters can be established to meet the needs and functions of different areas.
- Scenes can be established in different areas and at different times. Common scenes for malls are, opening mode, business mode, cleaning mode, and security mode.
- Different seasons demand different control modes, for example in summer, sunshades and illumination sensors are necessary to reduce air conditioning load. During the winter sunlight must be allowed into the building in order to reduce illumination and heating costs.
- If a system failure does occur a manual/auto switch is included to ensure normal operations can be accomplished.
- Energy measurement is used to ensure efficient energy distribution, this can give huge energy savings and increase operational efficiency.
**Airports**

- All lighting, sunshades, air conditioners, curtains, power sockets, can be accessed from in the inward and outward port hall, or from the waiting hall.
- Different lighting scenes can be set in the waiting hall, these scenes can have separated time periods and activate the air-conditioning in different areas.
- The sunshades can be automatically adjusted through illumination induction, this reduces energy consumption and increases the efficiency of air conditioners and lighting.
- Light damage can be estimated through current detection, this gives maintenance crews advanced warning so they can save costs and remedy the situation.
- A sensor that monitors weather conditions is able to control skylights and ventilation blinds, this guarantees efficient air circulation.
- Fire protection systems are linked to the lighting in public areas to ensure effective emergency lighting.

**Clubs**

- Differing atmospheres can be created by altering the lighting scenes. Different scenes can be set to match different scenarios, popular scenes include relaxed, party, dinner, wedding, meeting, etc.
- The lighting, curtains, air conditioners, and background music can be controlled via an intelligent control panel, a remote controller, or an android/iOS device.
- Any blinds or curtains can be automatically adjusted based on seasonal information, or sensor input. This can reduce energy consumption and increase the efficiency of air conditioners and lighting.
- Complete control of a clubs environment is possible by utilizing a single member of staff to monitor the control interface.

**Main Control Targets**

- Lighting
- Sunshades and blinds
- Temperature control
- Sound

**Main Control Modes**

- Manual control
- Timing control
- Scene control
- Central control
- Fire control
- Climate control

- Main control
- Lighting control
- Scene control
- Central control
- Remote control
### Exhibition Centers

#### Main Control Targets
- Lighting
- Temperature control
- Exhaustion

#### Main Control Modes
- Manual control
- Scene control
- Central control

- Different scenes can be set during the exhibition, from move in mode, exhibition mode, and move out mode, etc.
- Different scenes can be set in the exhibition hall at different time periods, air conditioning can also be set at different levels for different areas.
- Exhibition spaces can be partitioned with localized lighting and HVAC control. Lighting can also be reconfigured to meet the needs of exhibitions.
- Electrical shading devices can be regulated automatically via a luminance transducer; this dramatically reduces the energy consumption of air conditioners.
- Fire protection systems are linked to the lighting in public areas to ensure effective emergency lighting.

### Museums

#### Main Control Targets
- Lighting
- Temperature control

#### Main Control Modes
- Manual control
- Scene control
- Central control
- Anti-interception
- Security and protection control

- All lighting devices in the museum are managed through a central control system; this system can be manipulated via intelligent control panels and inductive controls. Different scenes can be set during the museum's preparation period, operational period, cleaning period and moving period.
- In the exhibition areas switches control only the basic lighting, they are automatically activated via displacement induction when visitors or staff are detected.
- Illumination in the major exhibition areas is activated when a display is approached, when the display is not being viewed the lights are deactivated.
- In special exhibition areas intelligent control panels manage the lighting effects. When the panels are in operation they are locked to prevent tampering; after the public have left the panel is unlocked enabling staff to control the system.
- Temperature is controlled according to the different requirements of individual areas. From exhibition areas, rest areas, passageways, and storage areas, the temperature can be adjusted. This provides a suitable temperature for visitors, and ensures areas of low use do not waste electrical resources.
- The system can also be interlinked to the security control system. This gives additional security, and enables an alarm to be raised if there is an emergency situation.
**Stadiums**

- Various modes can be switched to using an intelligent panel, from TV broadcast mode, game mode, training mode, cleaning mode, security mode, etc.
- The real-time monitoring of system status is available which notifies the user if any fault is detected.
- Device status can be monitored, and statistics delivered. This makes the system simple to manage, and saves on maintenance costs.
- Fire prevention devices are able to interlink and coordinate with the system, the general lighting can be dimmed and emergency lighting activated.
- The system is able to control lighting, electrical shading, drainage pumps, and ventilation all through one central hub.

**Schools**

- Each classroom can have the lighting, fans, and air conditioning managed via a customisable schedule. Different modes can be used for different times, common modes are weekdays, weekends, holidays, and special events.
- Intelligent panels can control the lights, curtains, air conditioning and projectors. Different modes can be selected or programmed via the panel itself.
- Through sensors the lights and air conditioning can be automatically activated when a presence is detected. The lights can be dimmed or brightened depending on the amount of natural light present.
- The entire school can be managed centrally, and graphical management software can be used to detect the status of each device. This ensures immediate notification when a failure occurs, enabling swift maintenance and saving manpower.
- Every panel can be locked by an administrator to prevent and avoid tampering.
Hospitals

Main Control Targets
- Lighting
- Shades and blinds
- Temperature control

Main Control Mode
- Manual control
- Timer
- Remote control
- Sensors control

- Intelligent panels can control lights, curtains, air conditioning, and activate different modes such as consultation mode or rest mode.

- The nurse's station can control lighting, curtains, and air conditioning. The temperature of the ward can also be monitored; this ensures an optimal environment for the patient.

- Corridor lighting can be activated automatically by Lux and logic control; dome lights can be automatically turned off at midnight.

- Administrators can remotely control the system and operate ward lights, curtains, and air-conditioning when a patient checks in. After check-out, an administrator can automatically or manually manage the ward.

- The system is able to display and control the temperature of each ward and set upper and lower temperature limits from a central control station. If a door or window is detected as being open, the air conditioner will automatically deactivate to ensure energy is not wasted.

Subway Stations

Main Control Targets
- Lighting
- Shades and blinds

Main Control Mode
- Coordinated control
- Central control
- Timer
- Lux control
- Sensors control

- The system is able to coordinate with Lux sensors, and timing controls. This enables the user to remotely manage the platform or waiting room.

- Different control modes can be used for different seasons, this provides a tailored response to varying environmental conditions.

- Fire detection devices are able to coordinate with the system; the general lighting can be dimmed and emergency lighting activated when an alarm is tripped.

- The status of lighting, curtains, blinds, and fans can be observed via graphical management software. This can be manually configured on-site to achieve efficient control and management.
HDL-KNX PRODUCTS

- KNX-DLP European / American standard intelligence multifunction panel
- KNX European / American standard intelligence panel
- KNX-Related Product
- KNX Intelligent panel
- KNX European / American standard touch panel
- KNX Panel Controller-C
- KNX Relay Actuator
- KNX Dimming Actuator
- KNX Motor Curtain lOH Actuator
- KNX RGBW 4-fold Driver
- KNX Outdoor Doppler Sensor
- KNX Indoor Doppler Sensor
- KNX Ultrasonic &Motion Sensor

KNX-DLP Intelligent Multifunction Panel To European Standard

Specifications
- Working voltage: 21-30V DC
- BUS Interface: KNX / EIB
- Dynamic current: <1mA
- Static current: <23 mA

Features
- Switch control
- Percentage control
- HVAC Control
- Dimming control
- Combination control
- Button Lock
- Shutter control
- Bytes/Word control
- Button Trigger
- Flexible control
- Backlight/Dimmer control
- Remote control
- Scene control
- Floor heating control
- Temperature control
- Sequence control
- IR Control
- Night mode setting

Combination support
- Work with MIRO-1 infrared module for IR control
- Work with M/PUQO1.10 HVAC module for HVAC/Pool heating control

Material and color are customizable
- The plate and button material can be customized to meet different design styles.

Multipurpose
- With a total of 6 pages, 2 pages can be used for lighting, 2 pages for HVAC, 1 page for AC, and 1 page for floor heating.

Lock
- Users can lock the LCD panel by the onboard buttons or by the Bus.
KNX European Standard Intelligence Panel

**Specifications**
- Working voltage: 21-30V DC
- BUS interface: KNX/EIB
- Dynamic current: <10mA
- Static current: <6mA

**Features**
- Switch control
- Dimming control
- Shutter control
- Flexible control
- Scene control
- Button lock
- Key combination control
- Backlight brightness settings

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**Specifications**
- Working voltage: 21-30V DC
- BUS interface: KNX/EIB
- Power consumption: <15mA

**Features**
- Switch control
- Percentage control
- Button Trigger
- Dimming control
- Threshold control
- Remote control
- Shutter control
- Combination control
- Night mode setting
- Flexible control
- Style/3Dimen: control
- Independent control
- Scene control
- Button lock
- Key combination control
- Backlight brightness settings

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**Specifications**
- Working voltage: 21-30V DC
- BUS interface: KNX/EIB

**Features**
- Switch control
- Percentage control
- Button Lock
- Dimming control
- Threshold control
- Button Trigger
- Shutter control
- Combination control
- Remote control
- Flexible control
- Style/3Dimen: control
- Night mode setting
- Scene control
- Backlight brightness settings

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**Specifications**
- Working voltage: 21-30V DC
- BUS interface: KNX/EIB

**Features**
- Switch control
- Percentage control
- Button Trigger
- Dimming control
- Threshold control
- Remote control
- Shutter control
- Combination control
- Night mode setting
- Flexible control
- Style/3Dimen: control
- Scene control
- Backlight brightness settings

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**Specifications**
- Working voltage: 21-30V DC
- BUS interface: KNX/EIB

**Features**
- Switch control
- Percentage control
- Button Trigger
- Dimming control
- Threshold control
- Remote control
- Shutter control
- Combination control
- Night mode setting
- Flexible control
- Style/3Dimen: control
- Scene control
- Backlight brightness settings

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**Specifications**
- Working voltage: 21-30V DC
- BUS interface: KNX/EIB

**Features**
- Switch control
- Percentage control
- Button Trigger
- Dimming control
- Threshold control
- Remote control
- Shutter control
- Combination control
- Night mode setting
- Flexible control
- Style/3Dimen: control
- Scene control
- Backlight brightness settings
**Specifications**

- Working voltage: 21-36V DC
- BUS Interface: KNX/EIB
- Dynamic current: <12mA
- Static current: <7mA

**Features**

- Switch control
- Dimming control
- Percentage control
- Shutter control
- Threshold control
- Independent control
- Flexible control
- Scene control
- Backlight brightness settings
- Sequence control
- ByPass [String] control
- Night mode setting
- Combination control
- Key combination control

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**Specifications**

- Working voltage: 21-36V DC
- BUS Interface: KNX/EIB
- Dynamic current: <12mA
- Static current: <7mA

**Features**

- Switch control
- Dimming control
- Percentage control
- Shutter control
- Threshold control
- Independent control
- Flexible control
- Scene control
- Backlight brightness settings
- Sequence control
- ByPass [String] control
- Button lock
- Button trigger
- Combination control
- Button trigger
- Backlight brightness settings
KNX-DLP Multifunctional LCD Switch US

M/DP04.1-46

Specifications

- Working voltage: 21-30V DC
- BUS Interface: KNX/ESB
- Dynamic current: +17mA
- Static current: +13mA

Features

- Switch control
- Percentage control
- HVAC control
- Dimming control
- Combination control
- Button lock
- Shutter control
- Style/String control
- Button trigger
- Flexible control
- Backlight/brightness settings
- Remote control
- Scene control
- Floor heating control
- Temperature report
- Sequence control
- IR control
- Night mode setting
- Throttle control

Combination support

- Works with M/TPAC 1 infrared emission modules for IR control
- Works with M/PCU01.10.10 HVAC modules for HVAC/floor heating control

Multiple Control Pages

- Lighting
- HVAC
- Floor Heating
- Air Condition

Note: Built-in IR receiver, the plate needs an IR receiving hole to accommodate IR functionality.

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KNX Multifunctional Switch US

M/PO1.2-46 | M/PO2.2-46 | M/PO3.2-46 | M/PO4.2-46

Specifications

- Working voltage: 21-30V DC
- BUS interface: KNX/ESB
- Dynamic current: +15mA
- Static current: +6mA

Features

- Switch control
- Percentage control
- Button Trigger
- Dimming control
- Throttle control
- Remote control
- Shutter control
- Combination control
- Night mode setting
- Flexible control
- Style/String control
- Independent control
- Scene control
- Button Lock
- Key combination control
- Sequence control
- Backlight/brightness settings

Fascia color and style is customizable

- White Buttons
- White & Black Buttons
- White & Black Buttons
- White & Black Buttons

Note: Built-in IR receiver, the plate needs an IR receiving hole to accommodate IR functionality.

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Metal buttons
Electronic labels
Selectable plate and frame
**KNX Multifunction Switch**

**M/TP02.1-46 | M/TP04.1-46**

**Specifications**
- Working voltage: 21-36V DC
- BUS interface: KNX/EIB
- Current consumption: <25mA

**Features**
- Switch control
- Dimming control
- Shutter control
- Flexible control
- Scene control
- Sequence control
- Percentage control
- Threshold control
- Combination control
- String control
- Key lock
- Button trigger
- Backlight brightness setting
- Night mode setting

**Fascia color and buttons are customizable**
- Note: Built-in IR receiver; the plate needs an IR receiving hole to accommodate IR functionality.

**KNX Touch switch US**

**M/TPB2.1-46 | M/TPB4.1-46 | M/TPB6.1-46**

**Specifications**
- Working voltage: 21-36V DC
- BUS interface: KNX/EIB
- Dynamic current: <12mA
- Static current: <7mA

**Features**
- Switch control
- Sequence control
- Byte/Strings control
- Percentage control
- Button lock
- Shutter control
- Threshold control
- Button trigger
- Flexible control
- Combination control
- Scene control
- Backlight brightness settings

**Supports RGB Back-light**

**Fascia color and style is customizable**

- White/2 Buttons
- White/4 Buttons
- White/6 Buttons
**Specifications**

- **Working Voltage:** 21~30 VDC
- **Bus Interface:** KNX/EB
- **Static current:** < 9mA
- **Dynamic current:** < 16mA

**Features**

- Each rocker has 2 work modes: Combined button mode and independent button mode.
- It supports signals of data point and function, include Switch control, Dimming, Shutter control, Follower control, Scene control, Sequence control, Percentage control, Threshold control, Combination control, Strings(16byte) controller, pulse controller.
- Button Lock, Button Trigger.
- Keep pressing the first and last button together for 2 seconds, the LED indicators will flashing and the device enter programming mode.
- User can define button icon.

**Panel 1Rocker Controller-PV2(V1.2)**  
**MP01.2-C1**

**Panel 2Rocker Controller-PV2(V1.2)**  
**MP02.2-C | MP02.2-C3 | MP02.2-C4**

**Panel 3Rocker Controller-PV2(V1.2)**  
**MP03.2-C | MP03.2-C6**

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**Specifications**

- **Program name:** Motor Curtain 1CH Actuator
- **Bus Interface:** KNX/EB (Master)
- **Model NO.:** MWM70M.1 (Master) / MWM70S.1 (Slave)
- **Rated voltage:** AC220V 50Hz
- **Voltage range:** AC220V±30% 50Hz
- **Working voltage:** DC21 ~36V (Master) / DC12V (Slave) from Master
- **Bus power Consumption:** +15mA2/30mA (Master)
- **Slave interface:** 4P network port
- **Rated power:** 70W
- **Rated torque:** 1.0Nm
- **Rated speed:** 112rpm
- **Rall bell speed:** 16cm/s

**Features**

- Standard control (with percentage)
- Simple control (without percentage)
- Automatic measure-distance
- Can control to open, close, stop and percentage.
- Can resume the status (open, close, stop, percentage, limit test position, etc.)
- Max status after bus voltage recovery function.
- Safety control: Control the curtain position by wind, rain, or fault signal
- Auto control: Control the curtain position by e.g. no sun, heating, cooling signal
- Scene control
- Forced operation
- Trigger control
- Slave status before power off function

**Panel 1Rocker Controller-PV2(V1.2)**  
**MP01.2-C1**

**Panel 2Rocker Controller-PV2(V1.2)**  
**MP02.2-C | MP02.2-C3 | MP02.2-C4**

**Panel 3Rocker Controller-PV2(V1.2)**  
**MP03.2-C | MP03.2-C6**

**Panel 1Rocker Controller-PV2(V1.2)**  
**MP01.2-C1**

**Panel 2Rocker Controller-PV2(V1.2)**  
**MP02.2-C | MP02.2-C3 | MP02.2-C4**

**Panel 3Rocker Controller-PV2(V1.2)**  
**MP03.2-C | MP03.2-C6**
KNX Relay Series
M/R4.16.1 | M/R8.16.1 | M/R12.16.1 | M/R16.16.1

HDL / KNX-08 BUS relay series products are fully compliant with European safety standards and protocols for high-power KNX switching equipment. With almost zero power consumption, and 50A high current magnetic relays, the unit ensures a long service life. Being widely used in airports, metro stations, stadiums, parks, roads, and studios, KNX products have proven themselves to be reliable and efficient.

Specifications
M/R4.16.1 | 4CH*16A
- Working voltage: 21-35V DC
- BUS interface: KNX/EIB
- Dynamic current: <5mA
- Static current: <5mA
- Dynamic power consumption: <450mW
- Static power consumption: <150mW
- Output current: 16A
- Rated voltage: 250V AC (50/60Hz)
- Electrical life: >100000 times
- Mechanical life: >150000 times

Features
- Time statistics function
- Channel status response
- On/Off status can set: on power failure
- Staircase light
- Flashing
- On/Off:Protection delay
- Scene control
- Threshold function
- Curtain control function
- Logic function: AND, OR, XOR, Gate
- Heating function: PWM control output

M/R8.16.1 | 8CH*16A
- Output channel: 8 relays channel

M/R12.16.1 | 12CH*16A
- Output channel: 12 relays channel

M/R16.16.1 | 16CH*16A
- Output channel: 16 relays channel

KNX Relay Series
M/R4.10.1 | M/R8.10.1 | M/R12.10.1 | M/R16.10.1

HDL provides solutions for smart homes and building control. Our systems enable the world to save energy, and protect the environment.

In doing so we provide comfort, convenience and a higher living standard.

Specifications
M/R4.10.1 | 4CH*10A
- Working voltage: 21-35V DC
- BUS interface: KNX/EIB
- Dynamic current: <5mA
- Static current: <5mA
- Dynamic power consumption: <450mW
- Static power consumption: <150mW
- Output current: 10A
- Rated current: 250V AC (50/60Hz)
- Electrical life: >50000 times
- Mechanical life: >100000 times

Features
- Time statistics function
- Channel status response
- On/Off status can set: on power failure
- Staircase light
- Flashing
- On/Off:Protection delay
- Scene control
- Threshold function
- Curtain control function
- Logic function: AND, OR, XOR, Gate
- Heating function: PWM control output

M/R8.10.1 | 8CH*10A
- Output channel: 8 relays channel

M/R12.10.1 | 12CH*10A
- Output channel: 12 relays channel

M/R16.10.1 | 16CH*10A
- Output channel: 16 relays channel

**KNX Dimmer Series**

MD/01.1 | 1CH*6A

- Output current: 6A/1CH

MD/02.1 | 2CH*3A

- Output current: 3A/1CH
- Signal channel maximum output voltage: 3.5A

MD/04.1 | 4CH*1.5A

- Output current: 1.5A/1CH
- Signal channel maximum output voltage: 2A

MD/06.1 | 6CH*1A

- Output current: 1A/1CH
- Signal channel maximum output voltage: 1.5A

**Specifications**

- Working voltage: 21-30V DC
- BUS interface: KNX/EIB
- Dynamic current: <120mA
- Static current: <7mA
- Allow total power: <5A
- Extended current: Parallel circuit
- Load type: Capacitive load, Inductive load, Resistive load
- Dimming mode: Leading edge dimming, Trailing edge dimming
- Raised voltage: 220V/110V AC(50/60Hz)

**Features**

- Time statistics function
- Status response
- Status recovery
- Overload protection
- Staircase light
- Flash light
- Scene control
- Temperature reading
- High temperature alarm
- Over temperature power reduce
- Dimming higher limit
- Dimming lower limit
- Sequence control
- Threshold switch
- Heating control (PWM)
- 1.5 power dimming curve (very smooth visual sense)

**KNX Dimmer Series**

MD/04.1 | 4CH*3A

**KNX Ballast Dimmer 6CH 0-10V**

MD/02.1 | 1CH*5A

**Specifications**

- Working voltage: 21-30V DC
- BUS interface: KNX/EIB
- Dynamic current: <120mA
- Static current: <7mA
- Allow total power: <5A
- Extended current: Parallel circuit
- Load type: Capacitive load, Inductive load, Resistive load
- Dimming mode: Leading edge dimming, Trailing edge dimming
- Raised voltage: 220V/110V AC(50/60Hz)

**Features**

- Time statistics function
- Flash light
- Sequence control
- Scene control
- Horizon control (PWM)
- 1.5 power dimming curve (very smooth visual sense)

**KNX Leading Edge Dimmer Serials**

MD/04.1 | 4CH*3A

**Specifications**

- Working voltage: 21-30V DC
- BUS interface: KNX/EIB
- Dynamic current: <120mA
- Static current: <7mA
- Allow total power: <5A
- Extended current: Parallel circuit
- Load type: Capacitive load, Inductive load, Resistive load
- Dimming mode: Leading edge dimming, Trailing edge dimming
- Raised voltage: 220V/110V AC(50/60Hz)

**Features**

- Time statistics function
- Flash light
- Sequence control
- Scene control
- Horizon control (PWM)
- 1.5 power dimming curve (very smooth visual sense)

**KNX Ballast Dimmer 6CH 0-10V**

MD/02.1 | 2CH*3A

**Specifications**

- Working voltage: 21-30V DC
- BUS interface: KNX/EIB
- Output current: 10A/1CH
- Output channel: 8-channel
- Static current: <7mA
- Shunt down type: Pull with the load relay shunt off
- Raised Voltage: 220V/110V AC(50/60Hz)

**Features**

- Time statistics function
- Status response
- Status recovery
- Sequence control
- Scene control
- Horizon control (PWM)
- 1.5 power dimming curve (very smooth visual sense)
The HDL KNX O-B Curtain controller fully adheres to European safety standards. Using a 10A magnetic current interface, this series offers power-free functionality and high reliability.

The curtain controller can be installed in airports, metro stations, sports stadiums, buildings, club, hospital wards, or other areas where curtain control is required.

Our company specializes in developing, manufacturing, and distributing Home/Building automation systems and stage lighting control systems. We provide green solutions that are environmentally friendly, conserve energy, and ensure a high quality of life.

**Specifications**

- **Working voltage**: 21-30V DC
- **BUS Interface**: KNX/EIB
- **Static power consumption**: <150mW
- **Output current**: 15A
- **Dynamic current**: <12mA
- **Static current**: <1mA
- **Dynamic power consumption**: <450mW
- **Rated current**: 250V AC(50/60Hz)
- **Electrical life**: >100000 times
- **Mechanical life**: >10000 times

**Features**

- Shutter mode
- Ordinary curtains mode
- Limit position control
- Position status response
- Power down status save
- Power on status recovery
- Manual operation
- Priority setting
- Operation status response
- Scene control
- Force position operation
- Safety control
- Automatic control

**Features**

- **Bus interface**: KNX/EIB
- **Working voltage**: DC21-30V (Master)
- **Bus power consumption**: <10mA/DC30V
- **Output**: R, G, B, W 4 channels, 4A/CH
- **Output type**: common anode RGBW LED strip and single LED
- **Housing material**: ABS, PC, ALU
- **Dimensions**: 183.5x75x35.6mm

**Features**

- Dimming function: relative dimming and absolute dimming
- Sequence: total 8 sequences. Each sequence has 24 steps.
- Staircase light
- Flashing light
- Scene: total 94 scenes.
- Logic
- Threshold
- Custom on/off
- Color selection

*only for combination RGBW channel.*
**Specifications**

- **Working power:** 21-30VDC
- **BUS interface:** KNX/EB
- **Dynamic current:** < 24mA
- **Static current:** < 35mA
- **Temperature detection range:** -30°C to 10°C
- **Humidity detection range:** 20~95% RH
- **Illumination detection range:** 0~1500 Lux
- **KNX terminals:** (Red/Black) 0.75~0.85mm Diameter Single-Core

**Electrical parameters**

- **Working power:** 21~30VDC
- **BUS interface:** KNX/EB
- **Dynamic current:** < 24mA
- **Static current:** < 16mA
- **Temperature detection range:** -30°C to 10°C
- **Humidity detection range:** 20~95% RH
- **Illumination detection range:** 0~1500 Lux
- **KNX terminals:** (Red/Black) 0.75~0.85mm Diameter Single-Core

**Functions**

- Built-in LUX sensor, microwave sensor, humidity sensor, temperature sensor, dry contact, external telegram.
- The multi-function motion sensor has 9 logic function blocks and can be set the logical reaction AND/OR, Each with 10 output objects. The work mode include single mode and Master & Slave mode.
- The multi-function motion sensor can report movement status, Lux status to KNX system.
- The multi-function motion sensor supports constant brightness output.
- It can controls for Switch control, Absolute dimming control, Shutter control, Alarm control, Percentage control, Sequence control, Scene control, String(14 byte) control, Threshold control, Logic combination.
- With function of constant brightness: keep the Lux in the constant value, will dim the lights to the corresponding intensity according to the surrounding brightness.
- The logic validity can be set by external telegram, enable end-user to enable or disable the preset logic.

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- With function of constant brightness: keep the Lux in the constant value, will dim the lights to the corresponding intensity according to the surrounding brightness.
- The logic validity can be set by external telegram, enable end-user to enable or disable the preset logic.
KNX Ultrasonic & Motion Sensor
MH5IU05.1

Specifications

- Working voltage: 21-230V DC
- Dynamic current: <15mA
- Static current: <6mA

Logic Block input Conditions

- 6 different logic input conditions
- External conditions input
- Motion sensor
- Ultrasonic sensor
- LUX sensor
- Dry contact
- Temperature sensor
- Logic relations AND, OR

Features

- Switch control
- Percentage control
- Absolute Dimming
- Sequence control
- Shutter control
- Scene control
- Alarm control
- String control [14 bytes]

Functions

- The HL-5IU05.1 multi-function sensor includes ultrasonic, PIR, temperature, LUX and dry-contact input.
- The sensor has 5 logic function blocks with logical relation AND/OR, each with ten output objects.
- Master & Slave for many sensor to control one channel light.
- The sensor can report movement status, temperature, LUX or dry contacts status to KNX system.
- The recommended install on the wall, the height about 1.2 to 1.8m.
- Support many control type: Switch control, Absolute dimming control, Shutter control, Alarm control, Percentage control, Sequence control, Scene control, String control, Logic combination control.

KNX Motion Sensor
MH505.1-B

Specifications

- Working voltage: 21-230V DC
- BUS interface: KNX/EIB
- Dynamic current: <15mA
- Static current: <6mA

Features

- Switch control
- Dry contact input
- Shutter control
- Dry contact status report
- Alarm control
- Temperature compensation
- Percentage control
- Temperature report
- Sequence control
- Lux control
- Absolute value dimming control
- Lux report
- Scene control
- Motors status report
- String control
- Multifunction logic combination

Functions

- The multi-function motion sensor can report movement status, temperature, LUX or dry contacts status to KNX system.
- The multi-function motion sensor supports constant brightness output.
- The recommended assembly height is 2m-3m. The sensitivity of the detector reduces as the assembly height increases.
- It can control for Switch control, Absolute dimming control, Shutter control, Alarm control, Percentage control, Sequence control, Scene control, String control, Logic combination control.
- With function of constant brightness: keeps the lux in the constant value, will dim the lights to the corresponding intensity according to the surrounding brightness.
- The logic validity can be set by dry contact or external telegram, enable end user to enable or disable the preset logic.
PIR 5logics Sensor
M/JS05.1

Specifications
- Working voltage: 21-30V DC
- BUS interface: KNX/IP
- Dynamic current: ≤6mA
- Static current: ≤5mA

Features
- This multi-function motion sensor can detect Movement, Lux, and external telegram.
- Up to 5 KNX/IP processing blocks can each output 10 objects.
- When in work mode the Unit is able to operate in both master or slave mode.
- The device can be activated by movement and Lux status in the KNX system.
- Supports constant brightness output.
- The recommended height to install the device is 2m-3m. Sensitivity decreases as the height increases.
- It is possible to control switching, absolute dimming, shutters, alarms, sequences, and scenes, etc.

Ultrasonic 5logics Sensor
M/JS05.1

Specifications
- Working voltage: 21-30V DC
- BUS interface: KNX/IP
- Dynamic current: ≤15mA
- Static current: ≤10mA

Features
- This multi-function motion sensor includes an ultrasonic sensor, Lux sensor, and external sensor detection.
- Up to 5 KNX/IP processing blocks can each output 10 objects.
- When in work mode the unit is able to operate in both master or slave mode.
- The device is able to report movement and Lux status to the KNX system.
- Supports constant brightness output.
- The recommended height to install the device is 2m-3m. Sensitivity decreases as the height increases.
- It is possible to control switching, absolute dimming, shutters, alarms, sequences, and scenes, etc.

DALI Gateway
M/DALI.1

Specifications
- Working voltage: 21-30V DC
- BUS interface: KNX/IP
- Dynamic current: ≤12mA
- Static current: ≤5mA
- Rated voltage: AC235-135V/0Hz...USA
- AC195-265V/50Hz

Features
- Fault status report
- Central control
- 24 Channel control
- 16 Group control
- 32 Scene control
- 16 Standby light control
- 16 Sequence control
- 16 Emergency light control

KNX Timer Master/Slave 4CH Controller
M/TM04.1

Specifications
- Working voltage: 21-30V DC
- BUS Interface: KNX/IP
- Dynamic current: ≤15mA

Features
- Master clock
- Slave clock
- Year routine
- Month routine
- Week routine
- Day routine
- Special day
- Switching control

- Our 4CH Master/Slave Controllers fully comply with European safety standards and KNX protocols. Its high-performance EMC filter is embedded, fully complying with the requirements of EMC. The timer controller is embedded with a real-time clock (RTC), which can be used as a master timer and slave timer.
KNX HVAC Controller
MFCU01.10.1

The HVAC Controller is one of the HDL KNX/EIB series. It can control heating, cooling, and a range of fan speeds.

The HDL HVAC controller supports 7 independent floor heating control channels, and works with digital temperature sensors that can calculate the specific temperature. The unit has 5 relay output channels, and 2 0-10V output channels.

Specifications

- Working voltage: 21-30V DC
- BUS interface: KNX/EIB
- Dynamic current: <5mA
- Static current: <5mA
- Dynamic power consumption: <450mW
- Static power consumption: <105mW
- Rated current: 250V AC(50/60Hz)
- Rated voltage: 24V DC
- Relay current: 10A
- Relay electrical life: >100000 times
- Relay mechanical life: >1000000 times

4 Channel Dry Contact Sensor
M/S04.1

The dry contact output and input sensor is one of the HDL KNX/EIB series. It includes a 4 channel signal input and a 4 channel signal output. The signal input channel can receive data from both the temperature sensor and dry contact sensor. It offers a DC output of 0-10V, a dimming signal, or shows the LED status channel.

This module can support temperature data, dry contact inputs, output 5 signal, 0-10V dimming, various sensors, and LED drivers, etc.

Control of relay, dimming, curtains, and scenes is also possible. Each logic controller has the ability to combine with 4 signal input channels.

Specifications

- Working voltage: 21-30V DC
- BUS interface: KNX/EIB
- Dynamic current: <5mA
- Static current: <5mA
- Channel output voltage: 0-10V
- Channel output current: 3 mA
- Input sensor type: Switch/Temperature sensor

Features

- 5 channel 10A relay output
- 2 channel 0-10V output
- Fan speed: High, medium, low, high
- HVAC operation mode: Comfort, standby, protection mode
- Fan speed, valve status report
- Local 7 channel temperature collection
- Local temperature report
- 7 channel independent floor heating control
- 7 channel independent control output
- 5 floor heating control mode / channel

TIPS

The HVAC Module utilizes a digital temperature sensor. It can use 7 digital temperature sensors to collect data from different locations and calculate an average temperature. The HDL HVAC control is used to create a comfortable energy-saving environment.

Features

- Switch control
- Dimming control
- Shutter control
- Door control
- Scene control
- Sequence control
- Percentage control
- Threshold control
- String control
- PWM output
- 5 Logic control

TIPS

The dry contact sensor works with the temperature sensor to collect and report the temperature.
Dry Contact 8CH Sensor
M/808.1

Specifications
- Working voltage: 24-30V DC
- BUS interface: KNX/EIB
- Dynamic current: <30mA
- Static current: <5mA

Features
- It can send a variety of control telegrams to the KNX system.
- Two work modes: Sensor control, Logic control
- Logic function totally consists of three parts: dry contact input, logical operation (Wind break), logic block output
- Control: Switch controller, Switch/Dimming controller, Shutter controller, Flexible controller, Scene controller, Sequence controller, Percentage controller, Threshold controller, String(14 bytes) controller, Forced position controller, Ball controller, Counter controller, Combination controller.

Dry Contact 24CH Sensor
M/824.1

Specifications
- Working voltage: 24-30V DC
- BUS interface: KNX/EIB
- Dynamic current: <30mA
- Static current: <5mA

Features
- Each sending a variety of control telegrams to the KNX system.
- Two work modes: Sensor control, Logic control
- Control: Switch controller, Switch/Dimming controller, Shutter controller, Flexible controller, Scene controller, Sequence controller, Percentage controller, Threshold controller, String(14 bytes) controller, Forced position controller, Ball controller, Counter controller, Combination controller, Logical controller mode.

KNX DMX512 Recorder Module
M/DMX512.1

Specifications
- Working voltage: 24-30V DC
- BUS interface: KNX/EIB
- Dynamic current: <12mA
- Static current: <5mA

Features
- A maximum 24 programs can be loaded
- Switch control
- Ability to record 24 programs
- A separate ER macro function
- Module to DMX Class exchange
- KNX to DMX Class exchange
- DMX to KNX Class exchange
- Intelligent sequence control
- Output signal: DMX512/1981, E361, 3X361
- Sound output control

KNX 960mA Power Supply module
M/960.1

Specifications
- Input voltage: AC110V~230V 50/60Hz
- Output voltage: DC36V
- BUS interface: KNX/EIB
- Output current: 960mA
- Power consumption: <2W
- Power on time: <1s

Features
- Green LED indicator: Normal output
- Red LED indicator: Overload
- Overload and short-circuit protection
- Reset button

This KNX/EIB 960mA power supply module fully complies with European safety standards and KNX protocol. It outputs a maximum 960mA current to 24 BUS.
**KNX IR Emitter Module**

**M/IRAC.1**

**Specifications**
- Working voltage: 21-30V DC
- BUS interface: KNX/EIB
- Dynamic current: <15mA
- Static current: <5mA
- Maximum effective distance: 6m

**Features**
- Single control
- Repeat control
- Split AC control
- Sequence control
- Current detection

**IR Codes**
- The HDL-KNX Assistant Software allows the system to learn new codes and download them to the KNX IR Emitter Module.

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**KNX USB Interface**

**M/USB.1**

**Specifications**
- Bus voltage: 21-310V
- BUS interface: KNX/EIB
- BUS current: <1mA
- Installation: Standard 35mm Din Rail
- Type of connection: KNX/EIB Connector
- USB interface 1.0/1.1
- Dimensions: 70x35x90mm (L x W x H)
- IP class: IP20

**Features**
- Type B USB Connector
- Automatic recognition of PC and KNX equipment to be programmed
- LED indicators for data transmission
- Usable from ET545
- Automatic detection and installation of the USB Interface
- Easy access USB connection

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**KNX net/IP Router**

**M/IPRT.1**

**Specifications**
- KNX Bus voltage: DC2 - 30V
- KNX Bus current: <5mA
- External power supply: 24V DC (12 to 30V)
- Power consumption: typ. 520mW, max. 800mW
- External current: typ. 15mA
- Dimensions: 70x35x90mm (L x W x H)
- IP Class: IP20

**Features**
- The KNX net/IP Routing & Tunneling Interface device offers a router the ability to temporarily disable the routing of messages by pressing a button.
- This saves system commissioning considerably.
- Temporary access to other lines is possible without having to download data from the ET5.
- If the bus experiences communication failures, the user is notified by the devices onboard LEDs.

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**KNX Line Coupler / Repeater**

**M/LCR.1**

**Specifications**
- Bus Voltage: 21-310V
- BUS interface: KNX/EIB
- BUS Main Line Current: <35mA
- BUS Secondary Line Current: 3mA
- Installation: Standard 35mm Din Rail
- Connector: KNX/EIB Main line - Left bus connection terminal
- KNX/EIB Sub line - Right bus connection terminal
- Dimensions: 70x35x90mm (L x W x H)
- IP Class: IP20

**Features**
- Line coupler for connecting wide-KNX lines or areas
- Filter functionality, telegrams can be filtered to reduce telegram traffic.
- Galvanic isolation of the lines
- 8 LED display data transmission and 1 LED displays programming mode
- Can be used as line amplifier/repeater as well

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**The HDL KNX Line Coupler can be used as coupler or repeater (to amplify the signal). If the device is used as a line coupler, it can be linked with the sub line or main line. A separate power supply including choke is required for each new line segment, each line will still be electrically isolated. The Line Coupler can filter telegrams and pass or block them to other lines.**

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**HDL**

49

50/
**KNX 4 Core Shield Cable**

**HDL BUS/KNX/EIB**

HDL BUS & KNX/EIB 4 core shield cable is specifically designed to be used with HDL devices. The HDL BUS and KNX/EIB Cable gives optimum data transmission, and is the recommended choice when wiring HDL devices.

**HDL BUS/KNX/EIB/4 Core Shield Cable**

**Specifications**
- Twisted Pair: 4 twisted pair (red and black, white and yellow)
- Cable Description: Aluminum foil shield, ground wire
- Insulation resistance (20°C): >50k Ohm/km
- Conductor resistance (20°C): <0.5 Ohm/km
- Copper wire diameter: 0.75-0.80mm
- Cable diameter: 7.5-8.0mm
- Impedance: 120 ohm
- Twisted No.: 40mm

**Environment conditions**
- Working temperature: -20°C to 85°C
- Working relative humidity: 10%~95%
- Storage temperature: -40°C to 100°C
- Storage relative humidity: 10%~98%

**Features**
- 4 core shield cable: red, black, white, yellow
- Strong signal transmission capability
- Strong anti-jamming capability

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**HDL Assistant Software V1.0**

**FREE SOFTWARE**

- Personalize your DL/P screen by downloading icons to the KNX DL/P Intelligent Panel using the HDL-KNX Assistant Software.

**For KNX DLP Panel (M/DLP04.1)**

- Enable your system to learn new IR codes by downloading them to the KNX IR Emitter Module using the HDL-KNX Assistant Software.

**For KNX IR Emitter Module (M/IRAC.1)**

- Manage your DALI devices and their automatic address allocations, and create 18 DALI device groups.

**For KNX DALI Module (M/DALI.1)**

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**KNX Product List**

**US Standard Panel**

- Multifunction DLP panel (HDL-MDL/P04.1-48)
- One gang push button (HDL-MP01.1-48)
- Two gang push button (HDL-MP02.1-48)
- Three gang push button (HDL-MP02.1-48)
- Four gang push button (HDL-MP04.1-48)

**EU Standard Panel**

- One gang push button (HDL-MP01.1-48)
- Two gang push button (HDL-MP02.1-48)
- Three gang push button (HDL-MP02.1-48)
- Four gang push button (HDL-MP04.1-48)

**South Korea Standard Panel**

- Two button panel (HDL-MP01.3)
- Four button panel (HDL-MP02.3)
- Eight button panel (HDL-MP04.3)

**EU Standard LCD Panel**

- Multifunction DLP panel (HDL-MDL/P04.1-48)
FEDERATION OF KOREAN INDUSTRIES

SEOUl, SOUTH KOREA

Description

The Federation of Korean Industries headquarters utilized HDL-KNX products. The beacon of Seoul’s skyline heralded the importance of smart energy saving in large skyscrapers. The building is 240 meters tall (800ft), and features an innovative exterior glass facade designed specifically to reduce the internal heating and cooling loads.

Energy is collected by integrating photovoltaic panels into the spandrel areas of the southwest and northwest facades, those are the areas which receive most direct sunlight.

By angling the spandrel panels 30 degree upwards, the design team maximized the amount of energy collected, this energy is enough to power the electrical systems throughout the tower core and the office space.

The KNX solution chosen used a total of 290 HDL-KNX Relays (M/Re.36.1 series) which provide an output current of 36 Amperes per channel.

Inside the building, 453 HDL-KNX Sensors composed the Lux and motion net. These sensors were essential as they helped to control the skin of the building, enabling it to save energy at different times of the day.
WALEXPO EXHIBITION COMPLEX AND BUSINESS CENTER

ARDENES, BELGIUM

Description

Walexpo is a multi-functional, innovative, passive, exhibition complex and business center. Situated in the rural heart of the Belgian Ardennes, it is the first European building that adheres to passive energy criteria. Its contemporary design covers an area of 25,000m², and is located in the midst of a superbly landscaped park that covers some 60 hectares.

KL SENTRAL RAILWAY STATION

KUALA LUMPUR, MALAYSIA

Description

Kuala Lumpur Sentral is an exclusive urban center built around Malaysia’s largest transit hub, offering global connectivity, excellent investment opportunities, business convenience and an international lifestyle.

The HDL KNX/ilight building automation system was applied in 4 basement floors, 7 shopping mall floors, and 27 office floors. This gave the end user total control of over 6000 channels and their lighting loads.
MEDIAMARKT STORE PROJECT

ZWJNAARDE, BELGIUM

Description

Media Markt is a German chain of stores selling consumer electronics with numerous branches throughout Europe and Asia; it is Europe’s largest retailer of consumer electronics, and the second largest in the world after American retailer Best Buy.

The project required several relay modules to be installed that could split the store into sectors, and control different devices. The chosen user interface to control the HDL systems was a touchscreen installed in the manager’s office.

CHATEAU DU FAING PROJECT

CHINY, BELGIUM

Description

HDL was selected to retrofit this 12th century castle’s electrical systems. Nestled in the south east of Belgium the castle lies close to the small village of Lamage.

The end-user required total control of lighting and HVAC, to meet these needs HDL-44X solutions were installed.

Due to the castle’s immense dimensions, the installation required countless HDL power supply modules and relays.

The end result is a perfect blend of old and new, ancient and modern, giving the best of both worlds to the customer.