



Figure 1. 5CH High Power Switch Actuator (with Emergency Function)

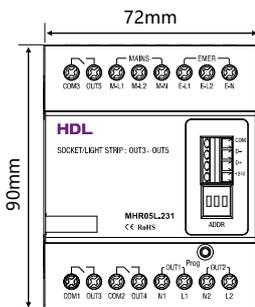


Figure 2. Dimensions - Front View

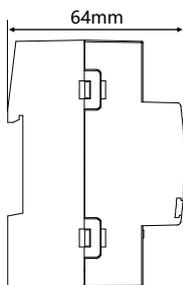


Figure 3. Dimensions - Side View

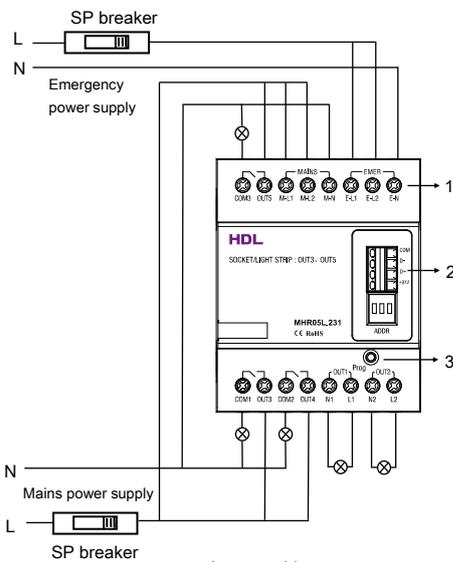


Figure 4. Wiring

## Overview

5CH High Power Switch Actuator (with Emergency Function) (See Figure 1) is a multifunction relay with emergency function. It has 2 emergency relay channels and 3 relay channels. The emergency relay channel supports connecting emergency power supply automatically, and providing power to emergency relay channels when the mains power is cut off. The relay channel has relay switch control function. In conjunction with HDL Hotel Room Management System, the relay module can control lights, air conditioners, curtains and plugs etc.

## Functions

- The relay module has 2 emergency relay channels and 3 relay channels.
- Emergency relay channels: When the module works with mains, the loads can be connected to output terminals to control the relay switch. When the mains is cut off, the output terminals will directly connect to the emergency power supply to achieve the emergency lighting function.
- The relay channels can directly connect to channels to control the switch.
- The ID address of the dimming module can be configured easily via dial code control, it also can be freely configured via HDL Buspro Setup Tool/ (previous) HDL Hotel Room Management System.
- Inner Buspro communication is adopted. In conjunction with HDL Hotel Room Management System, the dimming module can work in some more complicated scenes as a channel expansion module of HDL hotel host.

## Important Notes

- Communication: Inner Buspro communication.
- Inner Buspro connection - Series connection (hand-in-hand recommended)
- Check and ensure all connections are correct after installation.
- Output power - Each emergency relay channel needs to connect to a breaker or fuse for protection as it is not with short circuit protection function.
- The current of each channel must not exceed the rated current.

## Product Information

Dimensions - See Figure 2 - 3

Wiring - See Figure 4

- The channel connected to load devices
- Inner Buspro: HDL Inner Buspro, connected to the hotel host controller.
  - Dial code 000: The original address of each channel is configured by software.
  - Dial code 001: The channel address is 1;
  - Dial code 010: The channel address is 6;
  - Dial code 011: The channel address is 11;
  - Dial code 100: The channel address is 16;
  - Dial code 101: The channel address is 21;
  - Dial code 110: The channel address is 26;
  - Dial code 111: The channel address is 31.
- Programming button & indicator: The indicator flickers, when the relay module runs normally. Press the programming button for 1 second, the indicator turns red, then the channel original address can be read and configured via HDL Buspro Setup Tool/ (previous) HDL Hotel Room Management System.

Note : 5CH High Power Switch Actuator (with Emergency Function) shall be used with Hotel Room Control Host.

Installation - See Figure 5 - 7

- Step 1. Fix the DIN rail with screws.
- Step 2. Buckle the bottom cap of the actuator on the edge of the DIN rail.
- Step 3. Press the device on the DIN rail, slide it and fix it up until an appropriate position is adjusted.

## Safety Precautions



- The installation and commissioning of the device must be carried out by HDL or the organization designated by HDL. For planning and construction of electric installations, the relevant guidelines, regulations and standards of the respective country are to be considered.
- The device should be installed with DIN rail in DB box. HDL does not take responsibility for all the consequences caused by installation and wire connection that are not in accordance with this document.
- Please do not privately disassemble the device or change components, otherwise it may cause mechanical failure, electric shock, fire or body injury.
- Please resort to our customer service department or designated agencies for maintenance service. The warranty is not applicable for the product fault caused by private disassembly.

## Package Contents

HDL-MHR05L.231\*1 / Label\*5 / Datasheet\*1



Figure 5

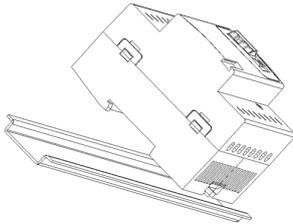


Figure 6

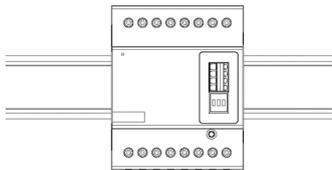


Figure 7

Figure 5 – 7. Installation

## Technical Data

### Basic Parameters

|                               |  |
|-------------------------------|--|
| Working voltage               | 15~30V DC  |
| Working current               | 75mA/24V DC                                      |
| Output channel                | 2CH/10A (AC100-240V 50/60Hz)<br>Relay (CH3, CH5) |
|                               | 1CH/5A (AC100-240V 50/60Hz)<br>Relay (CH4)       |
| Emergency channel             | 2CH/5A (AC220V 50Hz)<br>Emergency relay (CH1~2)  |
| Electronic life time of relay | >60000 (Resistance Load)                         |
| Protection                    | Connect a breaker in each channel                |

### External Environment

|                           |            |
|---------------------------|------------|
| Working temperature       | -5°C~45°C  |
| Working relative humidity | ≤90%       |
| Storage temperature       | -20°C~60°C |
| Storage relative humidity | ≤93%       |

### Specifications

|   |  |
|---|--|
| Dimensions                                  | 72mm×90mm×64mm                                   |
| Net weight                                  | 418g   |
| Housing material                            | Nylon, PC  |
| Installation                                | 35mm DIN rail installation<br>(See Figure 5 - 7) |
| Protection rating (Compliant with EN 60529) | IP20   |

### Name and Content of Hazardous Substances in Products

| Components | Hazardous substances |              |              |                       |                                 |  |
|------------|----------------------|--------------|--------------|-----------------------|---------------------------------|--|
|            | Lead (Pb)            | Mercury (Hg) | Cadmium (Cd) | Chromium VI (Cr (VI)) | Poly-brominated biphenyls (PBB) | Poly-brominated diphenyl ethers (PBDE) |
| Plastic    | o                    | o            | o            | o                     | o                               | o                                      |
| Hardware   | o                    | o            | o            | o                     | -                               | -                                      |
| Screw      | o                    | o            | o            | x                     | -                               | -                                      |
| Solder     | x                    | o            | o            | o                     | -                               | -                                      |
| PCB        | x                    | o            | o            | o                     | o                               | o                                      |
| IC         | o                    | o            | o            | o                     | x                               | x                                      |

The symbol "-" indicates that the hazardous substance is not contained.

The symbol "o" indicates that the content of the hazardous substances in all the homogeneous materials of the component is below the limit requirement specified in the Standard IEC62321-2015.

The symbol "x" indicates that the content of the hazardous substance in at least one of the homogeneous materials of the part exceeds the limit requirement specified in the Standard IEC62321-2015.

## Inner Buspro Cable Guide

| Inner Buspro | HDL Buspro Cable | CAT5/CAT5E               |
|--------------|------------------|--------------------------|
| DATA+        | Yellow           | Blue/Green               |
| DATA-        | White            | Blue white/Green white   |
| COM          | Black            | Brown white/Orange white |
| 24V DC       | Red              | Brown/Orange             |

#### Technical support

E-mail: [support@hdlautomation.com](mailto:support@hdlautomation.com)

Website: <https://www.hdlautomation.com>

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