

RCU Lite

Instruction Manual



MHMIRCU-HT.13

Before using this product, please read this manual carefully and keep it properly!

Document Version: C

◆◆ Overview

RCU Lite (Model No.: MHMIRCU-HT.13, hereinafter referred to as “the product” or “the device”) is an RCU module with thirteen integrated channels, including seven TV8 relays, three light strip control channels, one 25A relay, two MOSFET dimmer channels and one doorbell output; the device is equipped with sixteen dry contacts supporting multiple input and output modes; it supports cloud servers and is widely used in hotel smart home systems for controlling and managing doorbell panels, curtains, lamps, fans, air conditioners, floor heaters and other devices.

Key functions:

- Network connection: Using UDP network communication, RCU Lite has an RJ45 port, which can connect to each room, reception and management software. Through HDL Hotel Room Management System, the module can integrate with the third party management software to exchange information.
- Dual interface support: RS485 interface can be used for third-party device; Link interface supports Buspro control within HDL.
- Buspro cable control: Buspro cable interface with HDL Buspro protocol.
- Power on mode: power on with/without a keycard.
- Channel control: thirteen common channels for controlling relays, dimmers and other devices.
- Device support: up to eight groups of air conditioners, eight groups of curtain motors, four fans, three channels of heated floors , supporting synchronization of device control status to the controlling terminal (air conditioners, curtains, lamps, etc.).
- Dry contact setting: sixteen channels of dry contact, supporting multiple modes and input/output settings.
- Customizable doorbell: Users can choose how to control doorbell.
- Scene Setting: Support fifty scenes, each scene can be configured with thirty-two targets.
- Logic control: forty-eight general logic, including eight commonly used logic.
- Support system time setting.
- Record saving: The last history record automatically saved.

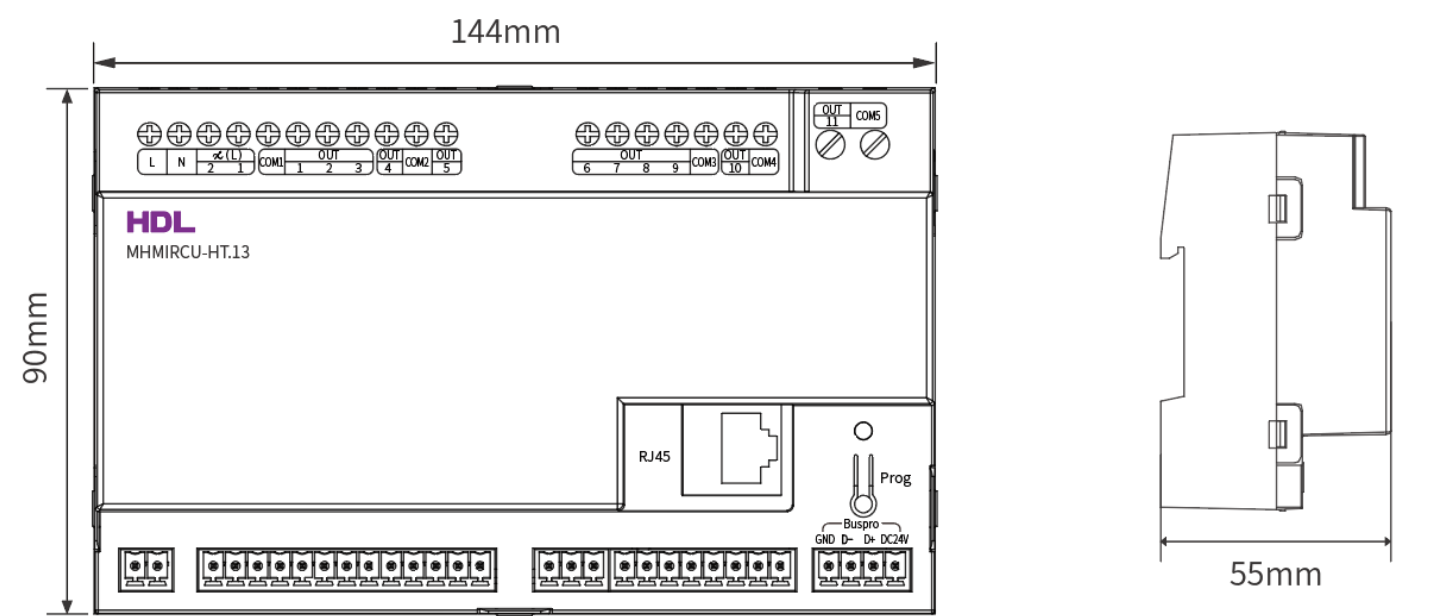
◆◆ Technical Data

Item	Parameter
Rated voltage	20 - 30V DC
Input voltage	AC 100~240V, 50/60Hz
Output channel	7CH, 3A/CH relay; 1CH, 25A/CH relay; 1CH, 0.5A/CH Door bell; 2CH, 0.8A/CH MOSFET; 3CH, 0.9A/CH on/off (recommended to connect to LED or other capacitive loads, only outputting AC 220V)
Rated current	1.32A/24V DC

Communication protocol	Buspro, RJ45, RS485
Interface	UDP/IP interface
Communication interface	HDL Buspro, Inner Buspro, RS485
Working temperature	-5℃ ~ 45℃
Working relative humidity	≤90% RH, non-condensed
Storage temperature	-20℃ ~ 60℃
Storage relative humidity	≤93%

◆◆ Specifications

Item	Parameter
Dimensions (W X H X D)	144mm×90mm×55mm
Net weight	130g
Housing material	Nylon
Installation	DIN rail
IP degree (compliant with EN 60529)	IP20



◆◆ Safety Precaution

- The installation and testing for the product must be carried out by HDL Automation Co., Ltd. or its appointed service agencies. The electric construction shall comply with local laws and safety regulations.
- The device should be installed with DIN rail in DB box. HDL will not be responsible for any consequence caused by the

inexpert or faulty installation and wiring methods, which are not in accordance with the instructions contained in this operating instruction.

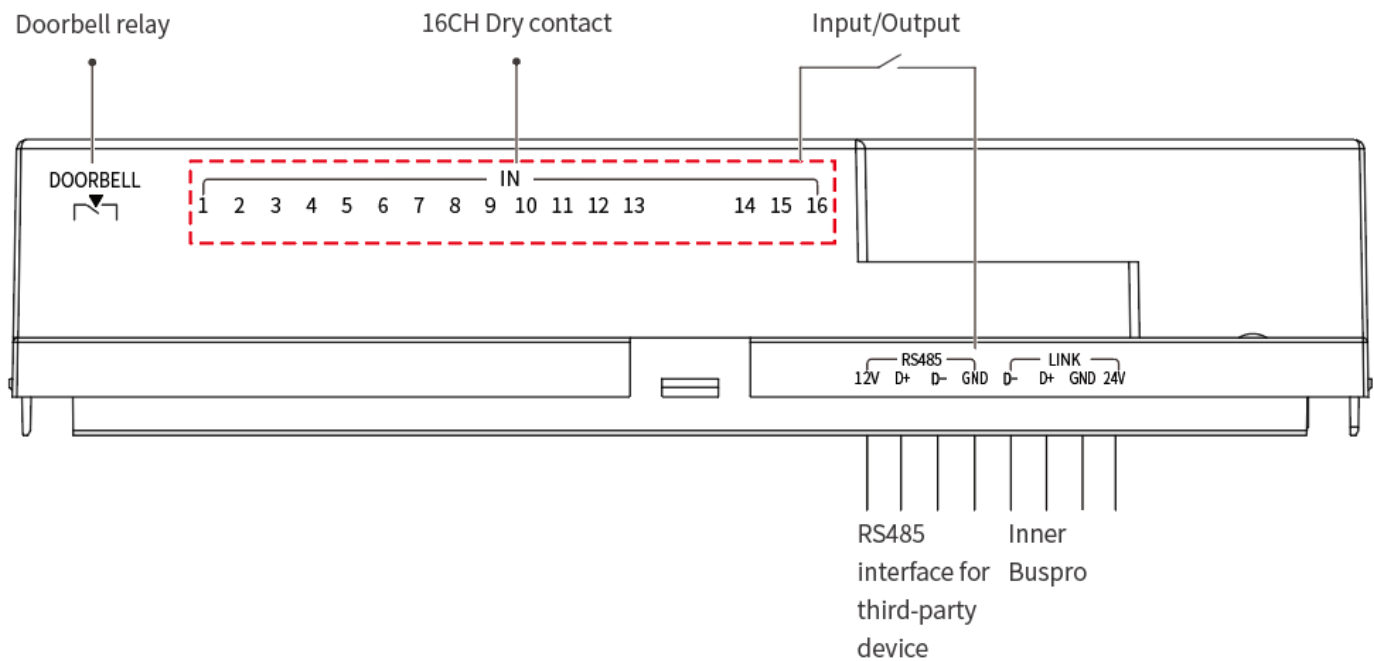
- Please do not privately disassemble or replace any parts of the product. Otherwise, it may cause mechanical fault, electric shock, fire or personal injuries.
- Please contact our after-sales departments or our designated service agencies for your maintenance service. Product failures caused by private disassembly are not subject to this warranty.

◆◆ Wiring

Input/Output channels: There are 13 common channels in this device, and each channel can be set as either an input or an output. Please plan ahead for wiring.

The product wiring is shown below:

- Doorbell output relay
- 1 - 16 channel: dry contact, supporting output(25mA)/input (passive dry contact)
- RS485 interface for third party device: supporting 12V/1A output
- Inner Buspro: supporting 24V/0.5A output

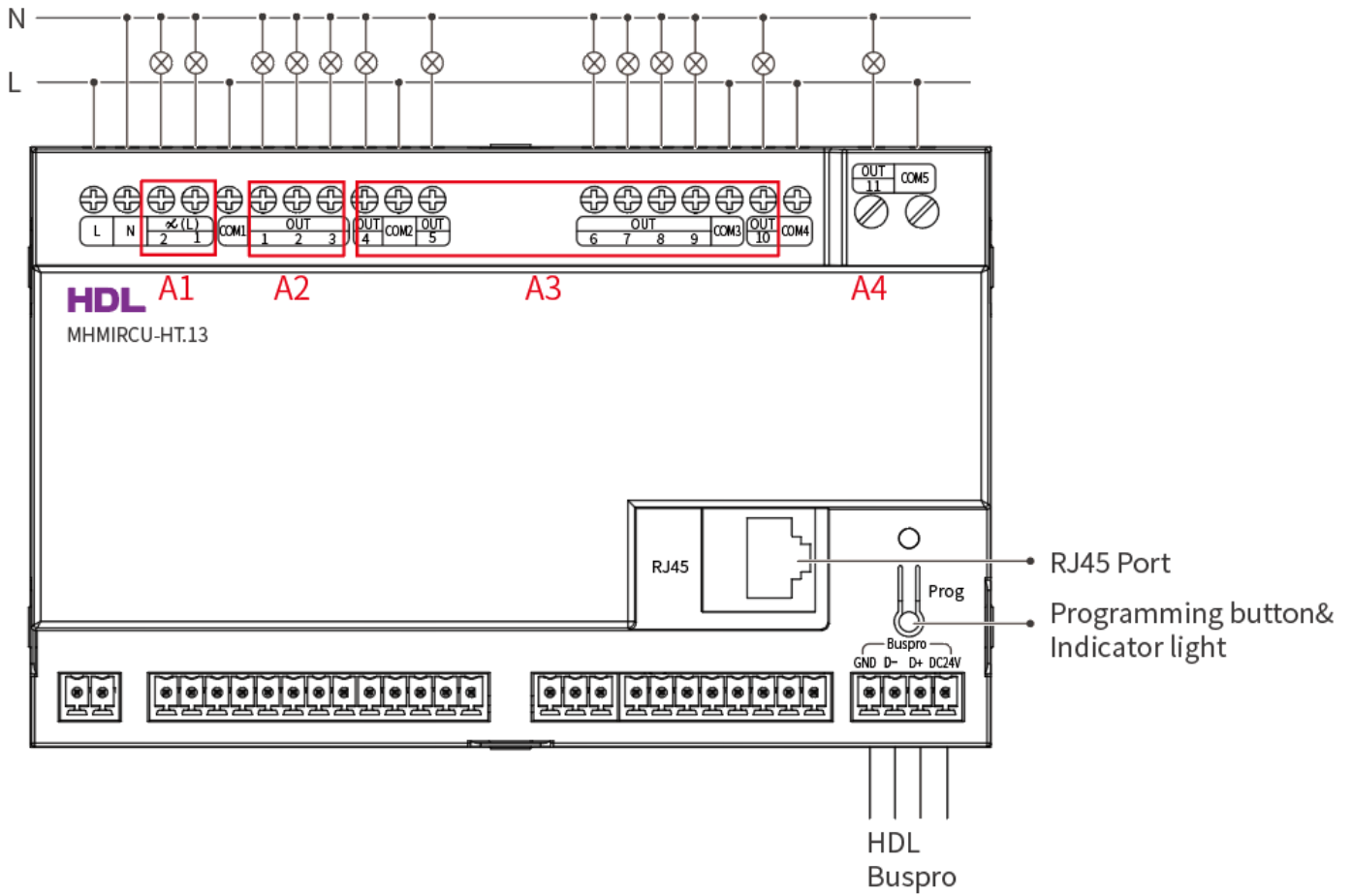


- A1: dimming channel, supporting dimming control, each channel supporting 0.8A, single channel maximum power: 200W
- A2: LED light strip channel (only supporting AC 220V on/off), it is recommended to connect to LED or other capacitive loads, and the maximum power of a single channel: 300W.

Note: The total load of dimming channel and light strip channel should not exceed 850W;

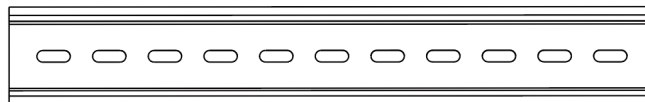
- A3: Ordinary 16A relay channel, maximum power of a single channel: 3A.

- A4: 25A relay channel, supporting 25A relay control.

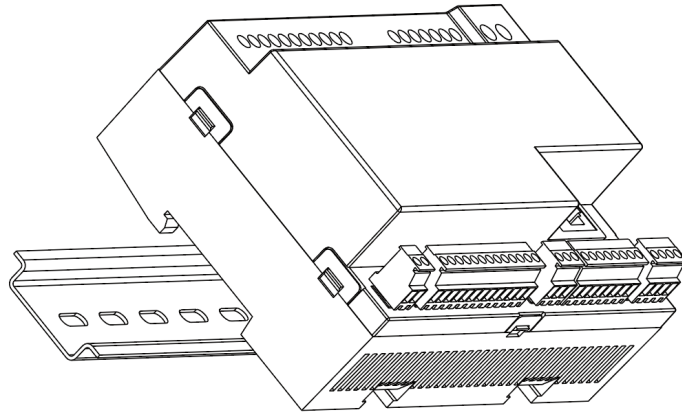


◆◆ Installation

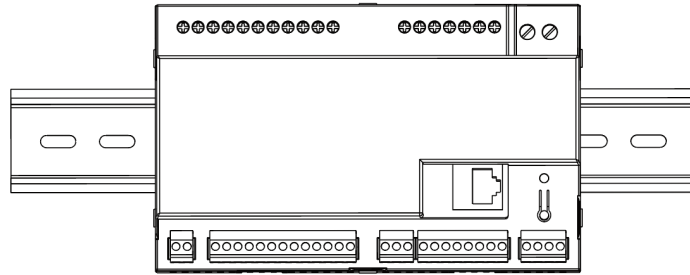
Step 1. Fix the DIN rail with screws.



Step 2. Buckle the bottom cap of the RCU Lite Room Control Unit 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.



◆◆ Packing List

- RCU Lite*1
- PET label paper*2

◆◆ Warranty

Warranty period (five years from the date of invoice), if the product fails in normal use, the user can go to the nearest authorized institution with a valid warranty card to obtain free maintenance.

In the following cases, HDL regards the user as giving up the relevant services promised under the warranty and the user shall bear the corresponding responsibility and shall not be entitled to the free warranty:

- Failure of the device caused by force majeure factors.
- The user has placed the device in a transportation or use environment that does not comply with the statements in the product instructions or technical manuals.
- Unauthorized disassembly of the product by the user.
- Promises not made officially by HDL to the user that are beyond the scope of the warranty are the responsibility of the promisor.

HDL reserves the right to update or change the product without prior notice to the user, please visit the HDL website for answers to your questions and the latest product information.

The final interpretation right of the warranty regulations belongs to HDL.

◆◆ Copyright Statement

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Update History:

The form below contains the information of every update. The latest version contains all the updates of all former versions.

Version	Update Information	Date
V1.0	Initial release	December 25, 2024

◆◆ Technical Support

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