RCU Lite

Datasheet

MHMIRCU-HT.13

Please scan the QR code above to check the latest version of datasheet!

Before using this product, please read this datasheet 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 can be connected to hotel room control units to expand channels.
- Buspro cable: using HDL Buspro protocol.
- Power activation with/without card.
- Channel control: thirteen common channels for controlling relays, dimmers and other devices.
- Device support: up to eight air conditioners, eight curtain motors, four fans, three 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.

◇◆ Appearance

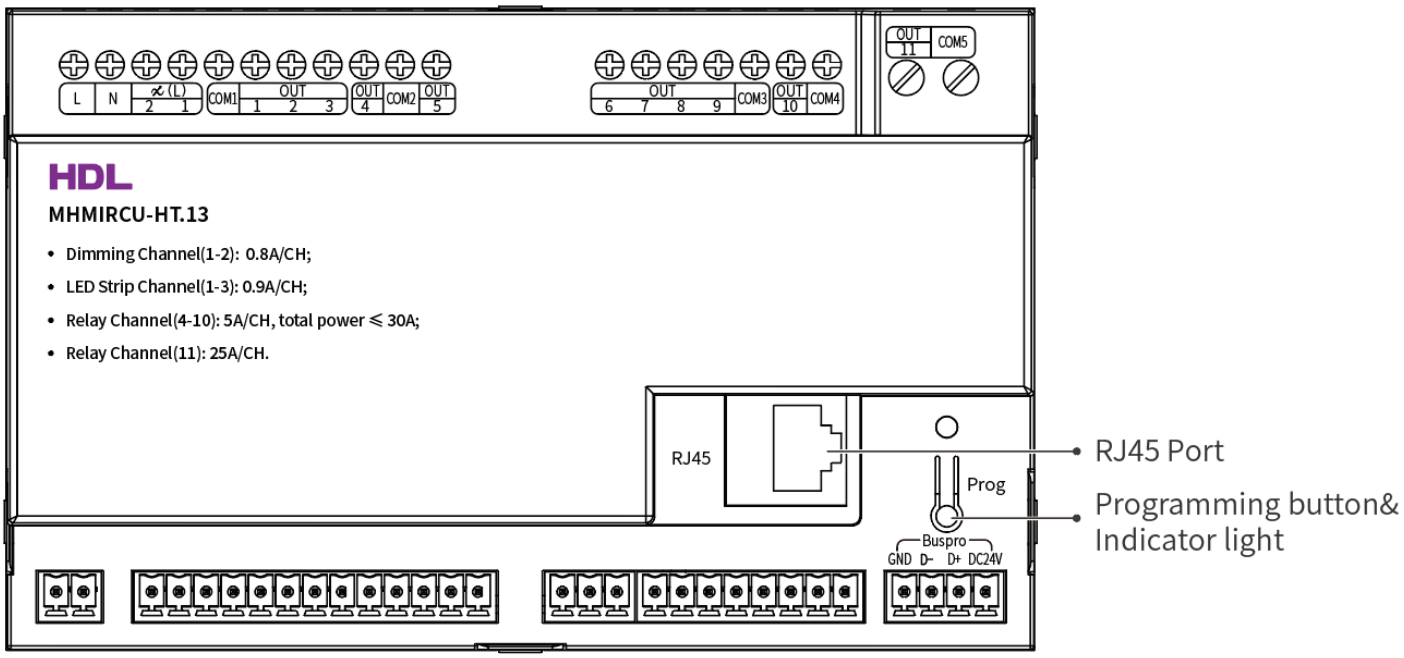

Figure 1

◇◆ Technical Data

Item	Parameter
Rated voltage	24V DC
Input voltage	AC 100~240V，50/60Hz
Output channel	7CH, 5A/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(Total current: 1.32A/24V DC; RCU Lite: 204mA/24V DC；Link: 500mA/24V DC；RS485: 1A/12V 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	420g
Housing material	Nylon
Installation	DIN rail
IP degree (compliant with EN 60529)	IP20

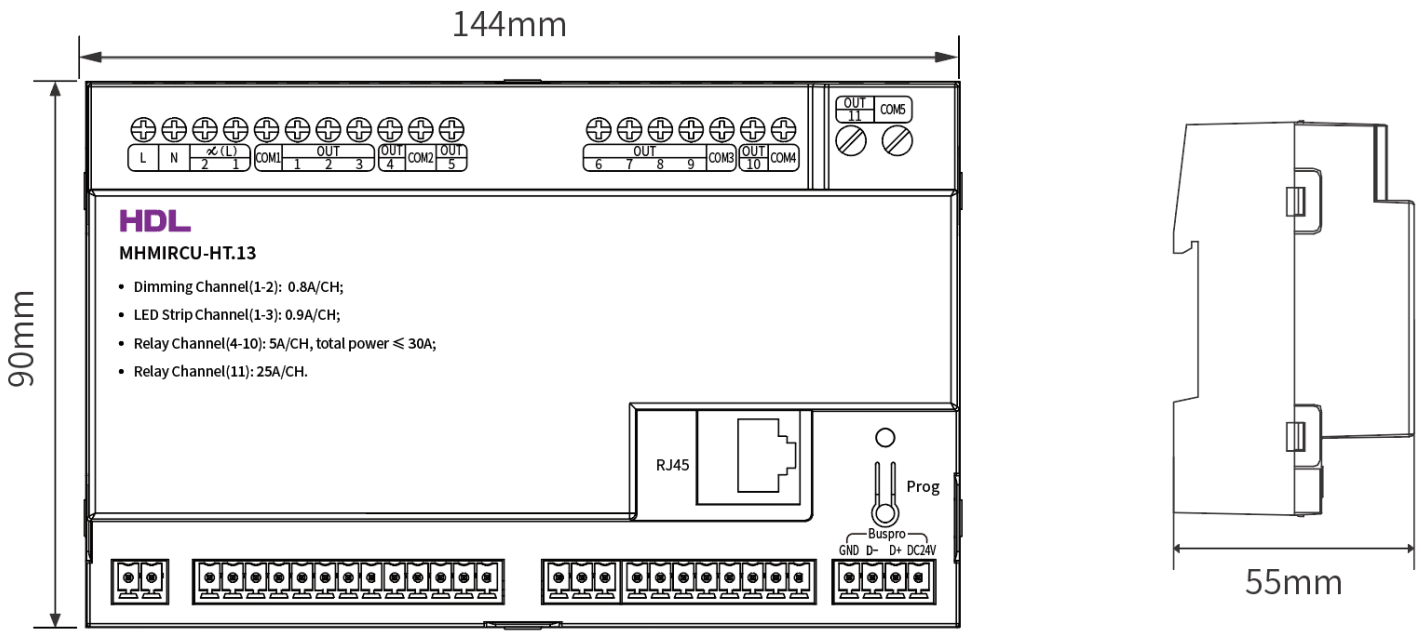

Figure 2

◇◆ 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, ffre 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

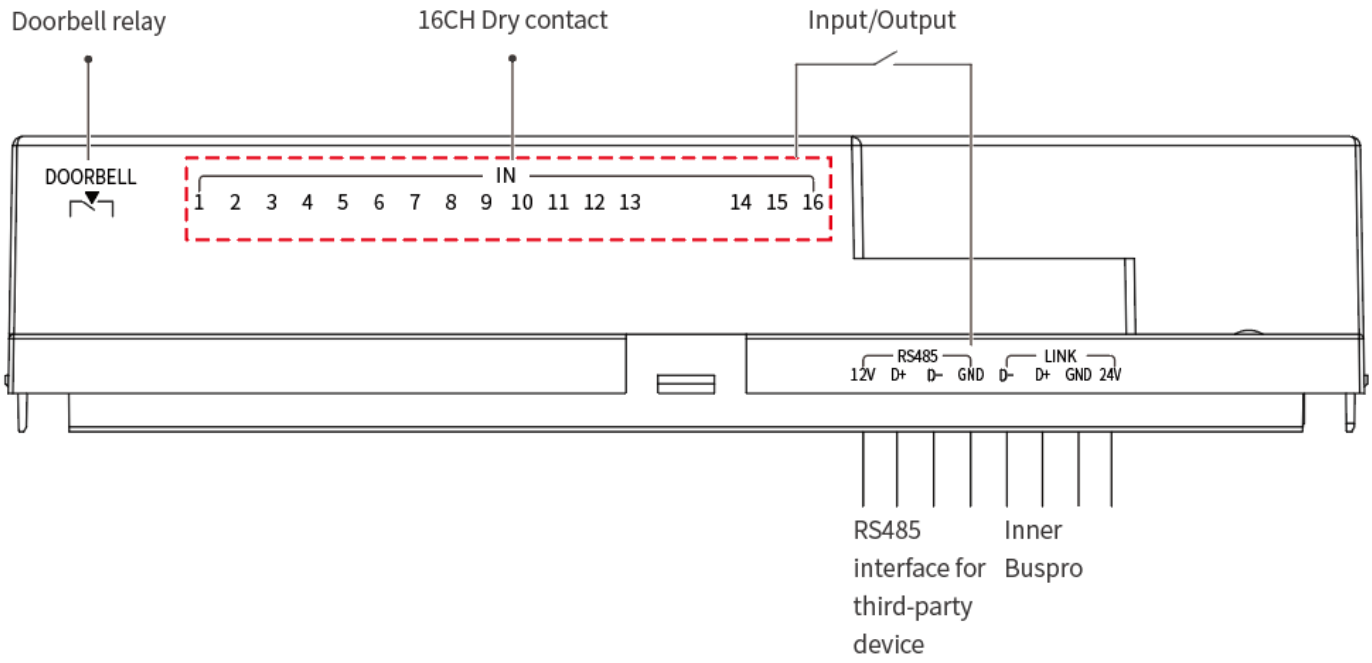

Figure 3

- 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 andlight strip channel should not exceed 850W;

- A3： Ordinary 16A relay channel, maximum power of a single channel: 5A.
- A4: 25A relay channel, supporting 25A relay control.

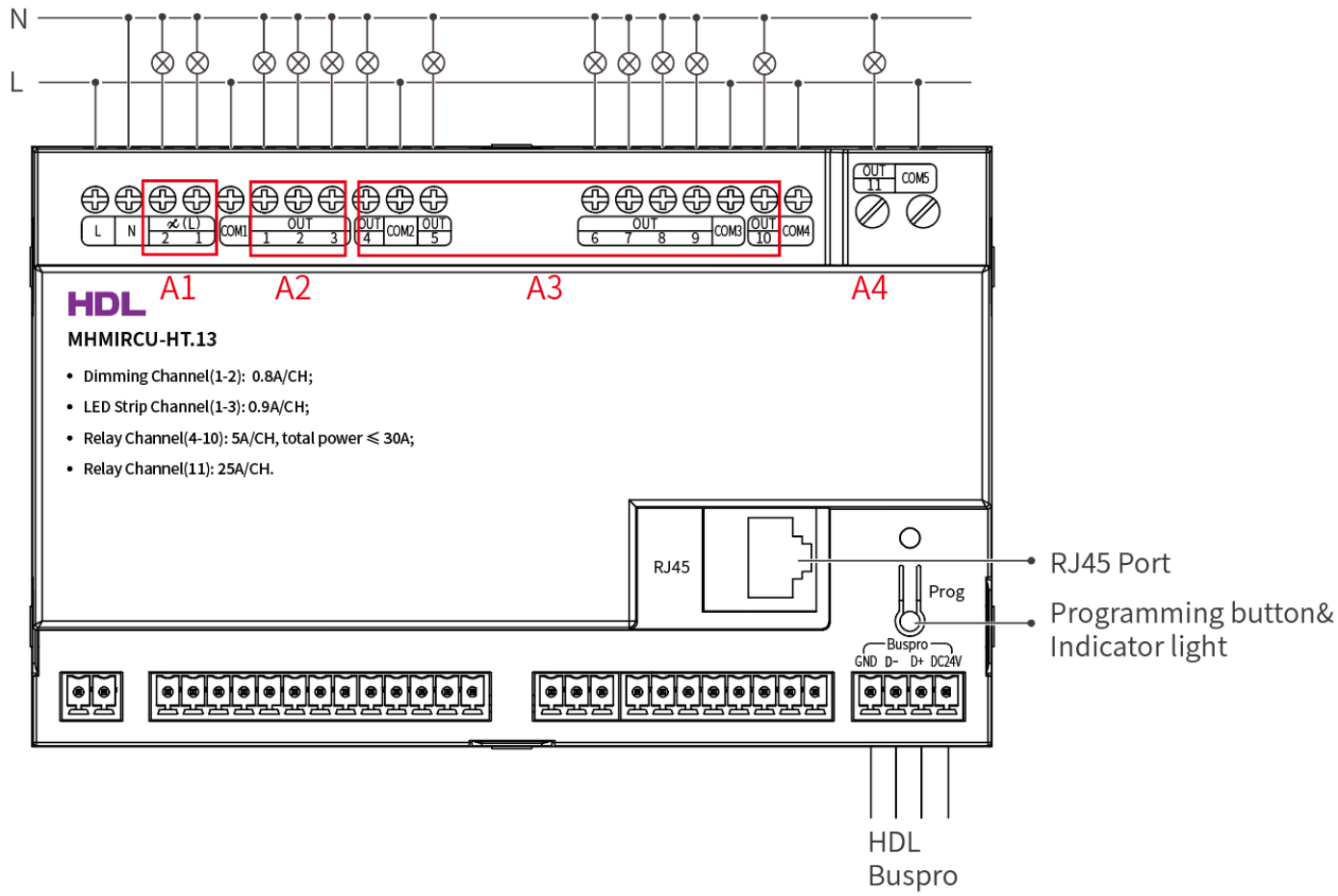

Figure 4

◇◆ Installation

Step 1. Fix the DIN rail with screws.

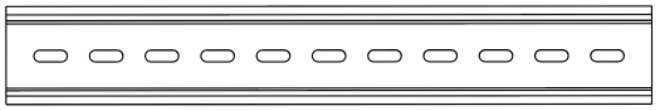

Figure 5

Step 2. Buckle the bottom cap of theRCU Lite Room Control Unit on the edge of the DIN rail.

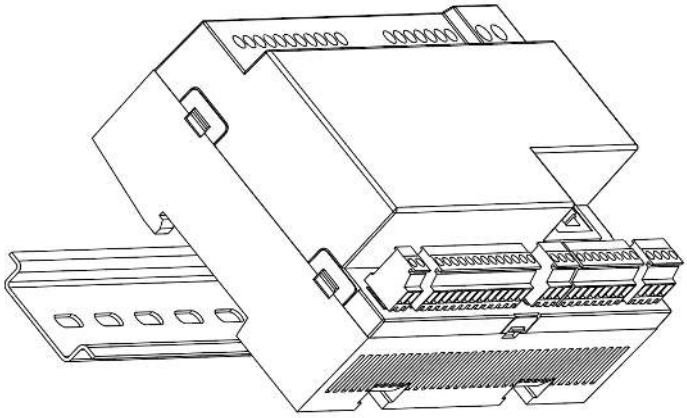

Figure 6

Step 3. Press the device on the DIN rail, slide it and fix it up until an appropriate position is adjusted.

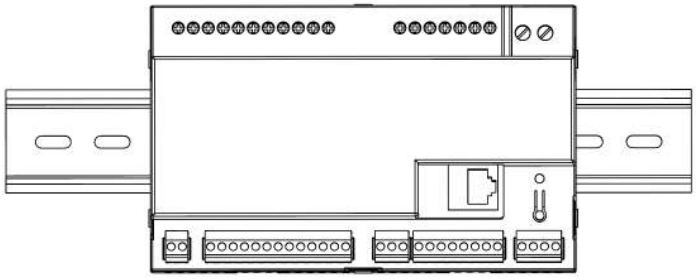

Figure 7

◇◆ Packing List

- RCU Lite*1
- PET label paper*2

◇◆ Copyright Statement

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

V1.1	Revision of product name and figures	April 1, 2025

◇◆ Technical Support

E-mail: hdltickets@hdlautomation.com

Website: https://www.hdlautomation.com