HDL-MHRCU.433

RCU Room Control Unit

buspro

Datasheet

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Figure 1. RCU Room Control Unit

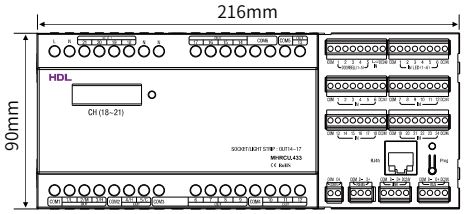

Figure 2. Dimensions - Front View

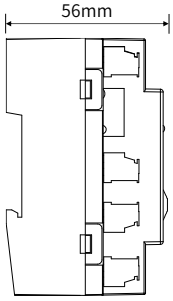

Figure 3. Dimensions - Side View

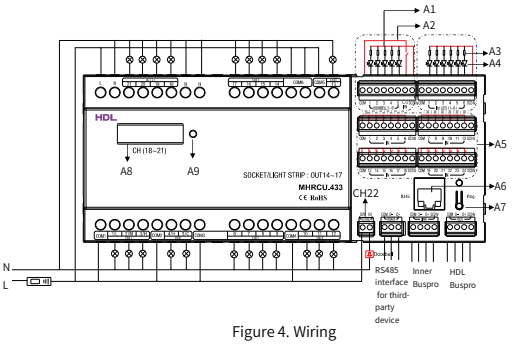

Figure 4. Wiring

Overview

RCU Room Control Unit (See Figure 1) is the core of a hotel system. It supports hotel host control, mix module control, 24-channel dry contacts, doorbell status display and LED output. The RCU Room Control Unit has 48 channels, which must be set through HDL Hotel Room Management System. The RCU Room Control Unit can monitor and control each equipment via HDL Hotel Room Management System after setting targets as doorbell panels, curtains, lamps, ventilation fan, air conditioners and other equipment.

Functions

- Controls up to 48 channels, each channel has the parameter for lower limit, higher limit, the maximum limit.
- There are 99 scenes in total, each scene' s running time is 0-250 seconds.
- The protection delay time of each channel is 0-60 minutes.
- 0-250s of bulk power-on time for each channel.
- Activate corresponding scene according to card master after identification.
- Monitors and controls air conditioners, curtains, lightings, room status, and uploads the status of air conditioners, curtains, lightings and other states to the monitor software of the server in real time.
- Receive various panel control signals, and control the module and channels.
- Bidirectional data exchange between HDL Buspro and Ethernet.
- Network connection. The RCU Room Control Unit has a 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.

Mix control functions

- Channel 1 to 13 are relay outputs, each channel is 5A. The load types are incandescent lamp, halogen lamp, low voltage halogen lamp.
- Channel 14 to 17 are relay outputs, each channel is 10A. The load types are incandescent lamp, halogen lamp, low voltage halogen lamp.
- Channel 18 to 21 are dimming outputs, each channel is 0.8A. It has short circuit protection, and the fuse is easy to replace. If the channel is short circuit or the fuse is wrong, the fuse indicator will flash.
- Channel 22 is relay for doorbell, it can control the doorbell status.

Dry contact

- 24-channel dry contract inputs. (The control target should be set from IHMS)

Door bell function

- 5-channel LED outputs. (It can connect to the third-party door bell panel.)

LED output function

- 6-channel switch indicator outputs.

Important Notes

- Inner Buspro cable - CAT5E or dedicated HDL Buspro cable.
- The fuse must be aR type.
- When you replace the fuse, the power should be cut off.
- Channel 18 to 21 are TRIAC dimming outputs. When the load is flickering, the constant current module needs to be connected.

Product Information

Dimensions - See Figure 2 - 3

Wiring - See Figure 4

5CH LED indicators, it can connect with third-party doorbell.
Universal switches for 1-5:
1. Wait, universal switch number is 13.
2. DND, universal switch number is 14.
3. Clean/laundry, universal switch number is 15.
4. Room number, universal switch number is 16.
5. Bell, universal switch number is 17.

A1: LED indicators of 5CH doorbell
A2: Doorbell control
A3: The recommended resistor is 1kΩ -5kΩ.
A4: 6CH common switch LED display. When the dry contact closes, the LED will be on, otherwise, the LED will be off.
A5: 24CH dry contacts
A6: RJ45 port
A7: Button and indicator: The indicator flickers in green when the module is working properly. Keep pressing it for 2s, you can set the start channel. Keep pressing it for 10s, it will turn red, the module will be reset to factory settings.
Default setting parameters:
IP: 192.168.10.250
Router IP: 192.168.10.1
Port: 6006
The network segment of the module should be same as the PC.
A8: Fuse socket
A9: Indicator of fuse

Safety Precautions

- 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.

Package Contents

HDL-MHRCU.433*1 / Datasheet*1

Figure 5

1

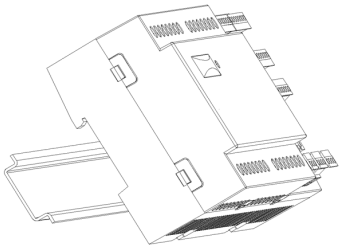

Figure 6

2

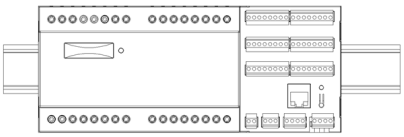

Figure 7

Figure 5 - 7. Installation

Technical Data

Basic Parameters

Working voltage	20~30V DC
Working current	300mA/24V DC
Input voltage	AC100~240V, 50/60Hz
Relay output	5A/10A
Communication interface	HDL Buspro, RJ45, Inner Buspro
RJ45 interface	UDP/IP network Interface
TRIAC	16A TRIAC, minimum load is 30W
Cable diameter of Buspro terminal	0.6-0.8mm

External Environment

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

Specifications

Dimensions	216mm×90mm×56mm
Net weight	725g
Housing material	Nylon
Installation	35mm DIN rail installation (See Figure 5 - 7)
Protection rating (Compliant with EN 60529)	IP20

Approved

CE
RoHS

HDL 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

Installation

Installation - See Figure 5 - 7

Step 1. Fix the DIN rail with screws.
Step 2. Buckle the bottom cap of the RCU 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.

Technical support
E-mail: hdltickets@hdlautomation.com
Website: https://www.hdlautomation.com