HDL®

CE RoHS

HDL-MRS232U.431
RS232/RS485 Gateway (Hardware Version: Timer)

Standard version is without the remark of "Hardware Version: Timer".

buspro

Datasheet

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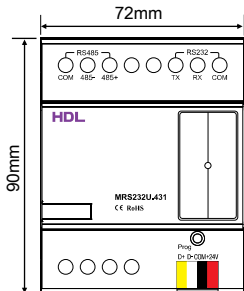Figure 1. RS232/RS485 Gateway (Hardware Version: Timer)
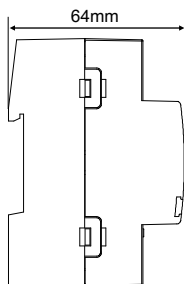

Figure 2. Dimensions - Front View
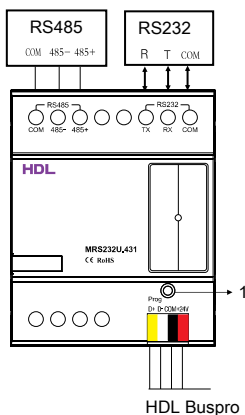

Figure 3. Dimensions - Side View

Figure 4. Wiring

Overview

RS232/RS485 Gateway (Hardware version: Timer) (See Figure 1) is the supporting product of the Buspro intelligent system. Its external RS485/RS232 interface adopts anti-interference technology of electrical isolation and a clock circuit is added to the system. This device enables the two-way communication between RS485/RS232 interface devices and Buspro system devices. The same hardware platform can be compatible with HDL-MRS232U.431 Gateway (Standard version) firmware and special integrated version firmware to realize the function of standard RS232/RS485 Gateway or the integrated function of special devices. Different versions of firmware may have different configurations, please refer to the relevant configuration documents of special integration devices for details.

Functions

Functions of the standard HDL-MRS232U.431 Gateway

- Enabling the mutual control between RS485/RS232 interface devices and Buspro system devices
- RS485/RS232 port ASCII or hexadecimal data ->Buspro protocol,
  Buspro protocol-> RS485/RS232 port ASCII or hexadecimal data
- Input command number up to 99, ASCII code number contained in each command up to 33.
- RS485/RS232 Baud rate: 1200, 2400, 4800, 9600, 14400,19200, 38400, 57600, 115200bps. Users can set the baud rate of standard version of RS232/RS485 Gateway, while the special integration version may skip the setting process. For details, please refer to the relevant configuration documents of special integration devices.
- Online upgrade.

Functions of the special integration version of HDL-MRS232U.431 Gateway

- Special device integration function based on the function of standard version.
- Simplified configuration of standard version for quick link
- Additional clock circuit used as device clock for meeting the requirements of special integration devices (Standard version do not support clock function)

Important Notes

- Buspro cable - CAT5E or dedicated HDL Buspro cable.
- Buspro connection - Series connection (hand-in-hand recommended)
- Baud Rates - Choose matching baud rate.
- Supports RS232 and RS485 interface connections, but only one of them can be selected at one time.

Product Information

Dimensions - See Figure 2 - 3
Wiring - See Figure 4

1. Programming button & indicator: The indicator flashes when the device is in working mode. Keep pushing the button for about 3 seconds to read or modify the module address in HDL Buspro Setup Tool.

Installation - See Figure 5 - 7

Step 1. Fix the DIN rail with screws.
Step 2. Buckle the bottom cap of the RS232/RS485 Gateway (Hardware Version: Timer) 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 ⚠ WARNING

- 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-MRS232U.431*1 / Buspro connector*1 / Label*5 / Datasheet*1

Technical Data

Basic Parameters

Working voltage	15~30V DC
Working current	15mA/24V DC

Communication Parameters

Baud rate	1200, 2400, 4800, 9600, 14400, 19200, 38400, 57600, 115200bps
Data bit	8
Stop bit	1, 2
Communication	HDL Buspro/RS232/RS485

External Environment

Working temperature	-5℃~45℃
Working relative humidity	≤90%
Storage temperature	-20℃~60℃
Storage relative humidity	≤93%

Specifications

Dimensions	72mm×90mm×64mm
Net weight	310g
Housing material	Nylon, PC
Installation	35mm DIN rail installation (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	×	-	-
Solder	×	o	o	o	-	-
PCB	×	o	o	o	o	o
IC	o	o	o	o	×	×

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 "×" 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.

HDL Buspro Cable Guide

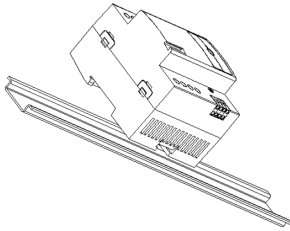| HDL Buspro	HDL Buspro Cable	CAT5/CAT5E
DATA+	Yellow	Blue/Green
DATA-	White	Blue white/Green white
COM	Black	Brown white/Orange white
24V DC	Red	Brown/Orange

Figure 5

Figure 6
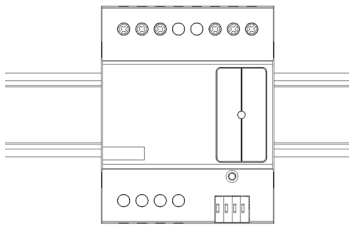
Figure 7

Figure 5 – 7. Installation

Technical support

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Website: https://www.hdlautomation.com