

Communication converter
CV310

HANYOUNG NUX



INSTRUCTION MANUAL

Thank you for purchasing HANYOUNG product.
Please check whether the product is the exactly same as you ordered.
Before using the product, please read this instruction manual carefully.
Please keep this manual where you can view at any time

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Safety information

Alerts declared in the manual are classified to Danger, Warning and Caution by their criticality

	DANGER DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury
	WARNING WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury
	CAUTION CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury

DANGER

The electric shock may occur in the input/output terminal so please never let your body and/or conductive substance to be contacted by the input/output terminal.

WARNING

- In a case of a serious accident by the device's malfunction, you must install a protection circuit outside.
- Since a power switch and fuse are not installed in this device, you must install them outside separately.
- In order to prevent from damage and malfunction, please supply a power voltage for the right rating.
- In order to prevent from electric shock and malfunction, please do not turn on the power until all wirings are terminated.
- Since its construction is not explosion-proof construction, please do not use it in the place where an explosive gas exists.
- Please do not disassemble, manufacture, reform, and fix it. There is a danger for disorder, electric shock, and fire.
- Please detach it after power is off. It can be a cause for electric shock, deflection, and false operation.
- If you are not using the way manufactures has indicated, it will bring a serious injury or damage for property.
- Because there is a danger for electric shock, please use it in a condition where panel is installed while current is flowing
- If you are using the device which could bring a wound or damage to the property, you should install safe device to prevent from the accident.
- It is necessary for having a proper back-up system and safe device to prevent damage from system's defect, death or property. It is a user's responsibility for protection about the result caused by the system's malfunction.
- The device is a product which is not approved as medical or life-support system
- If a user or third party is damaged in using this product due to defective communication converter used, we are not liable for any loss or indirect damage.

CAUTION

- The content of the manual can be changed without prior notice.
- Please check out specifications of the product you order.
- Please check out if the product is broken out during the transport.
- Please use it within a temperature range from -5 to 60 °C (Max 50 °C when installed tightly) / humidity 35~90% R.H.
- Please use it in a place where there is no corrosiveness gas (especially, noxious gas, ammonia etc.) and combustible gas.
- Please use it in a place where main body cannot be damaged or vibrated directly.
- Please use it in a place (pollution rate 1 or 2) where there are no water, oil, medicine, steam, dust, salt, and iron.
- Please avoid the place where induced lesion is large and static and magnetic noise appears.
- Please check when it got into the water because there is a danger of fire and short circuit.
- For input signal line, please avoid a load line, a power line and a power wire to protect from the impact of induction noise.
- Please separate input and output signal line each other, and if it cannot separate, please use a shield line for input signal line.
- When there is a lot of noise from power supply, we encourage you to use an insulation transformer and noise filter
- We encourage you to repair regularly for using this device safely and continuously.
- There are endurance one and aged deterioration in the component of this device.
- The guarantee period for this device including the components is one year if you are using it regularly.
- Please correctly connect the wiring after checking the polarity of the terminals.
- It is recommended that you use a noise filter on the power line and signal line.
- A-class instrument (information and communication instrument for business use)

"This instrument for business use (A-class) is registered as an electromagnetic capability instrument so that users or sellers should pay a close attention to this and please use it outside the house."

Introduction of item

CV310 is a communication converter that will change the data so that it can communicate signal of device (RS-232) with a number of RS-485 or RS-422 serial communication device. CV310 is an insulated converter that can be connected with 256 Node

Product's Features

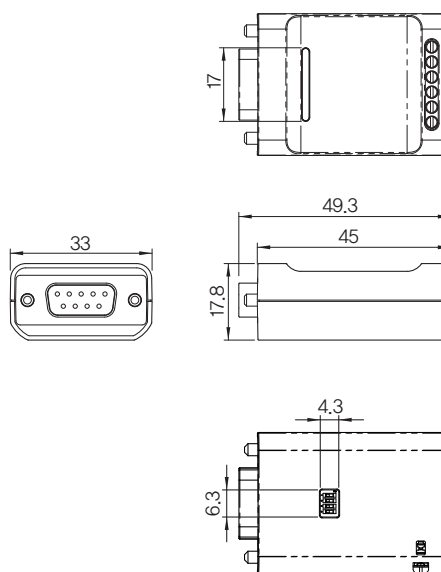
- Convert RS232 signal into RS422/485 signal
- Electrical insulation (2.5 Kv) between RS232 side and RS422/485 side
- Supply RS-485 Echo, Non-Echo function
- Easy to set operation mode by switch
- Easy to check Power status and data communication by LED display
- Excellent compatibility by fast sending/receiving conversion speed
- Max 1.2 km, 256 Node could be connected

Specification

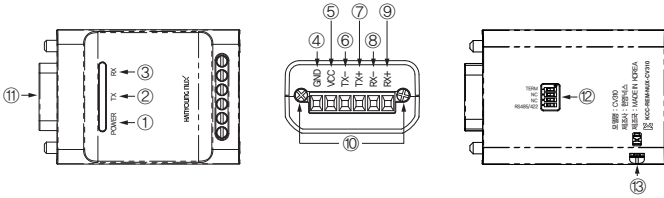
- Power : 9 - 30 V DC
- Power consumption : Max 0.7 W (30 mA / 24 V)
- Max. communication speed : 460800 bps
- Setting switch : 4 Pin Dip Switch
- Operating temperature : -20 °C ~ +70 °C
- Insulation voltage : 2 Kv
- Dimensions : 49 x 33 x 18
- Weight : 24 g

Dimension

[Unit : mm]



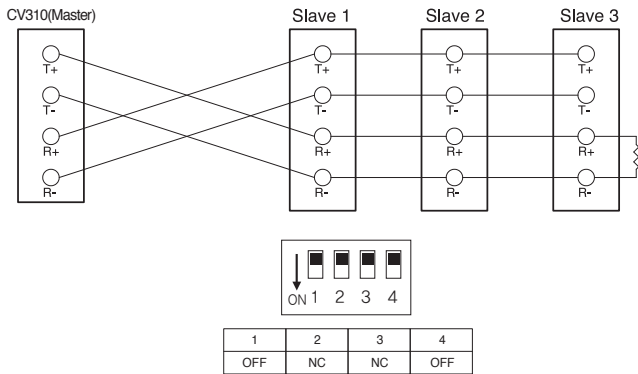
Name of each part



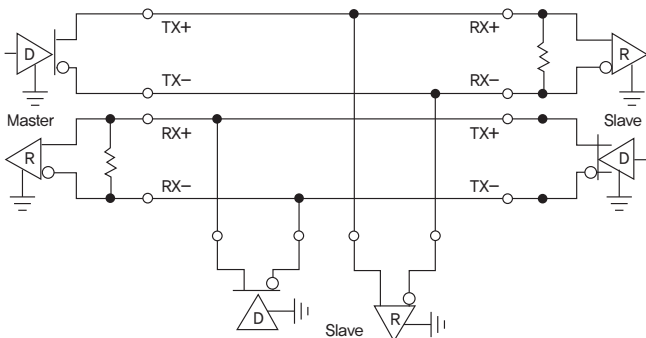
NO	Name	Function
1	Power LED	LED for power on checking (RED)
2	TX LED	RS-232 TX checking LED (GREEN)
3	RX LED	RS-232 RX checking LED (ORANGE)
4	GND	Ground terminal for external power supply
5	VCC	Input terminal for external power supply 9 – 24 V DC
6	TX-	Sending - terminal
7	TX+	Sending + terminal
8	RX-	Receiving - terminal
9	RX+	Receiving + terminal
10	Fixing bolt	Fixing bolt for RS-232 terminal
11	RS-232 / D-SUB 9PIN	#2 : TX #3 : RX #5 : GND
12	Operation setting switch	Setting communication operation by switch
	1 : Select RS-485/RS422	OFF : RS-422 (full duplex communication) ON : RS-485 (half duplex communication)
	2 : NC	
	3 : NC	
13	4 : Terminating Resistor	OFF : Do not use Terminating Resistor ON : Using Terminating Resistor
	GND Communication	RS-485 Communication GND (Separate power supply GND)

Connection diagram

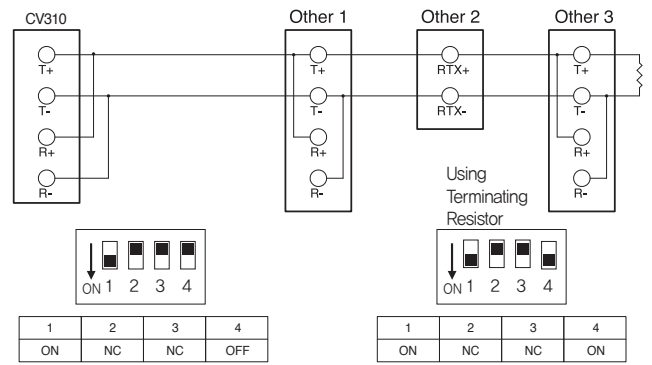
4 Wire full duplex communication (RS-422) 1:1 connection



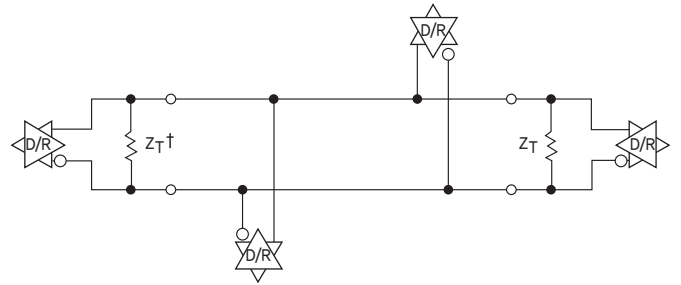
4 Wire full duplex communication (RS-422) 1:N connection



2 Wire half duplex communication (RS-485) 1:1 connection (Non-Echo Mode)



2 Wire half duplex communication (RS-485) 1:N connection



2 Wire half duplex communication (RS-485) 1:1 connection (Echo Mode)

