

# RS-485 Star Wiring Hub



## I-7520U4

Isolated RS-232 to 4 Channels RS-485 Active Hub

### Features

- True RS-485 Star Wiring Hub
- Independent RS-485 driver for each channel
- LEDs for indicating Tx/D/RxD activity
- Self-Tuner baud rate, 300 ~ 115200 bps and fixed baud rate setting via rotary switch, 1200 ~ 115200 bps
- 120Ω termination resistor for each channel
- Power Input, +10 ~ +30 V<sub>DC</sub>
- Operating Temperatures, -25 °C ~ +75 °C
- DIN-Rail



### Introduction

#### RS-485 Active Hub

The I-7520U4 is isolated RS-232 to 4-ch RS-485 active star wiring hub, it has 4 independent RS-485 output channels and one RS-232 input channel. Each output channel is equipped with an individual driver. The data from a master to the input channel will simultaneously be forwarded to all the four output channels.

#### Baud Rate Setting

The I-7520U4 provides 2 modes of baud rate setting, one is Self-Tuner mode and the other is fixed baud rate mode. The Self-Tuner mode can support Multiple Baud Rate and Multiple Data Format. The Self-Tuner design is exactly the same as I-7520 series.

The Fixed baud rate mode offers a better quality for data transmission over long or lossy lines or electrically noisy environments.

#### RS-485 Short-Circuit

The Short-circuit protection can automatically shut off the breakdown channel, this kind of design can suffice to protect the communication system. When a connected RS-485 equipment breaks down, the breakdown channel will be isolated to ensure that other equipments work normally.

#### Termination resistors

In some critical environments, you may need to add termination resistors to prevent the reflection of serial signals.

The I-7520U4 includes a 120Ω termination resistor for each channel by jumper selectable (Default disable).

#### LED Indicators

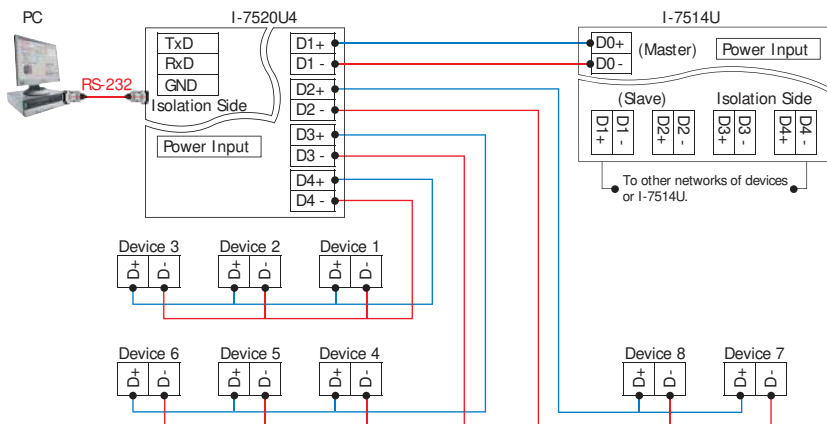
The I-7520U4 has 6 LED to indicate the power status and network traffic.

The Tx/D/RxD LED will flash when the unit is being sent out or received data.

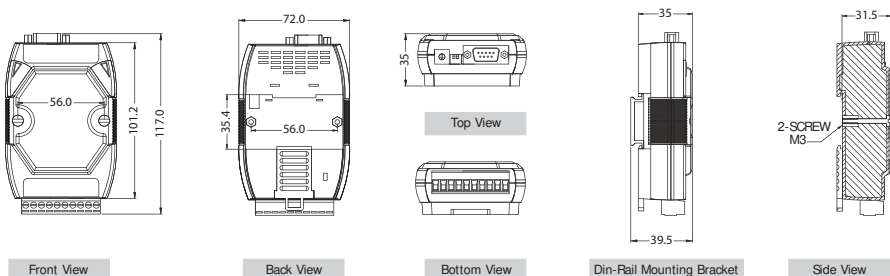
### Specifications

<b>Interface</b>	
Input	1 RS-232 Channel: Tx/D, Rx/D and GND
Output	4 RS-485 Channels: Data+, Data-
2-wire Cabling	Belden 8941 (2P twisted-pair cable), if different cables are used, the transmission distance may change
Transfer Distance	Max. 1,200 m at 9.6 kbps; Max. 400 m at 115.2 kbps
Max. Devices Supported	256 (Each channel)
Self-Tuner Asic Inside	Yes
Speed	300 ~ 115200 bps via Self-Tuner mode; 1200 ~ 115200 bps via Fixed Baud Rate mode
ESD Protection	Yes
2500 V <sub>DC</sub> isolation on RS-232	Yes
Connection	Removable 10-Pin Terminal Block x 1; 9-Pin Female D-Sub x 1
<b>LED Indicators</b>	
Power/Communication	Yes
<b>Power</b>	
Input Voltage Range	+10 V <sub>DC</sub> ~ +30 V <sub>DC</sub> (Non-isolated)
Power Consumption	1.2 W
<b>Mechanical</b>	
Casing	Plastic
Flammability	Fire Retardant Materials (UL94-V0 Level)
Dimensions (W x H x D)	72 mm x 118 mm x 35 mm
Installation	DIN-Rail
<b>Environment</b>	
Operating Temperature	-25 °C ~ +75 °C
Storage Temperature	-30 °C ~ +80 °C
Humidity	10 ~ 90% RH, non-condensing

## Applications



## Dimensions (Unit: mm)



## Pin Assignments

Terminal No.	Pin Assignment	Pin Assignment	Terminal No.	Pin Assignment	
RS-485	01	D1+	RS-232: Female DB-9 Connector	09	--
	02	D1-		08	--
	03	D2+		07	--
	04	D2-		06	--
	05	D3+		05	ISO_GND
	06	D3-		04	--
	07	D4+		03	RxD
	08	D4-		02	TxD
	09	(F) + Vs		01	--
	10	(B) GND			

## Ordering Information

I-7520U4 CR	Isolated RS-232 to 4 Channels RS-485 Active Hub (Gray Cover) (RoHS)
I-7520U4 CR	I-7520U4-G CR with CA-0915 cable x 1

## Accessories

GPSU06U-6	24 V <sub>DC</sub> /0.25 A, 6 W Power Supply
DIN-KA52F	24 V <sub>DC</sub> /1.04 A, 25 W Power Supply with Din-Rail Mounting
I-7510 CR	Isolated RS-485 Repeater (RoHS)
CA-0915	9-Pin Male-Female D-Sub Cable, 1.5 m