

### I-7520

Isolated RS-232 to RS-485 Converter

### I-7520A

Isolated RS-232 to RS-422/485 Converter

### I-7520R

RS-232 to Isolated RS-485 Converter

### I-7520AR

RS-232 to Isolated RS-422/485 Converter



### Features ▶▶▶▶

- Automatic RS-485 Direction Control
- ESD Protection for the RS-232/422/485 Data Line
- Power Input, +10 ~ +30 V<sub>dc</sub>
- DIN-Rail
- 3000 V<sub>dc</sub> Isolation Protection on the RS-485 side
- Transmission Speed of up to 115200 bps
- Operating Temperatures, -25 °C ~ +75 °C

### Introduction

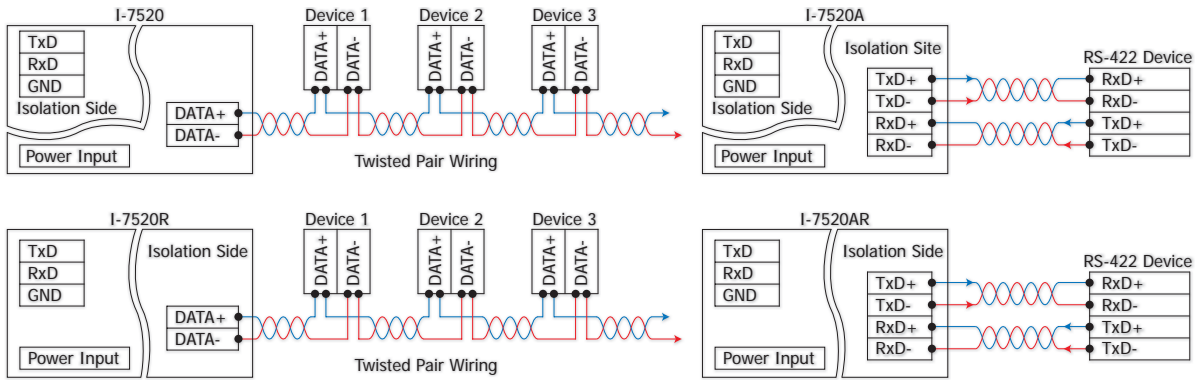
Most industrial computer systems provide standard RS-232 serial ports. Though widely accepted, RS-232 has limited transmission speed, range, and networking capabilities. The RS-422 and RS-485 standards overcome these limitations by using differential voltage lines for data and control signals, which transparently converts RS-232 signals into isolated RS-422 or RS-485 signal with no need to change any hardware or software. The I-7520/I-7520A lets you easily build an industrial grade, long-distance communication system using standard PC hardware.

The design of the isolation between the I-7520 and the I-7520R/AR is different. If the user wants to supply power from the PLC/PC, the I-7520R/AR should be used, otherwise the isolation will be broken. Refer to the I-7000 bus converter manual for detailed information.

### System Specifications

Models	I-7520	I-7520R	I-7520A	I-7520AR
<b>Interface</b>				
Serial Interface	RS-232	TxD, RxD, GND		
	RS-422	-		TxD+, TxD-, RxD+, RxD-
	RS-485	Data+, Data-		The RS-422 and RS-485 cannot be used simultaneously
Transfer Distance	Max. 1,200 m at 9.6 kbps; Max. 400 m at 115.2 kbps (Belden 9841 2P twisted-pair cable, if different cables are used, the transmission distance may change)			
Self-Tuner Asic Inside	Yes			
Speed	300 ~ 115200 bps			
ESD Protection	Yes			
3000 V <sub>dc</sub> Isolated Voltage	on RS-232 side	on RS-485 side	on RS-232 side	on RS-485 side
Connection	RS-232	9-Pin Female D-Sub		
	RS-422/485	Removable 10-Pin Terminal Block		
<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-Rai			
<b>Environment</b>				
Operating Temperature	-25 °C ~ +75 °C			
Storage Temperature	-30 °C ~ +75 °C			
Humidity	10 ~ 90% RH, non-condensing			

### Applications

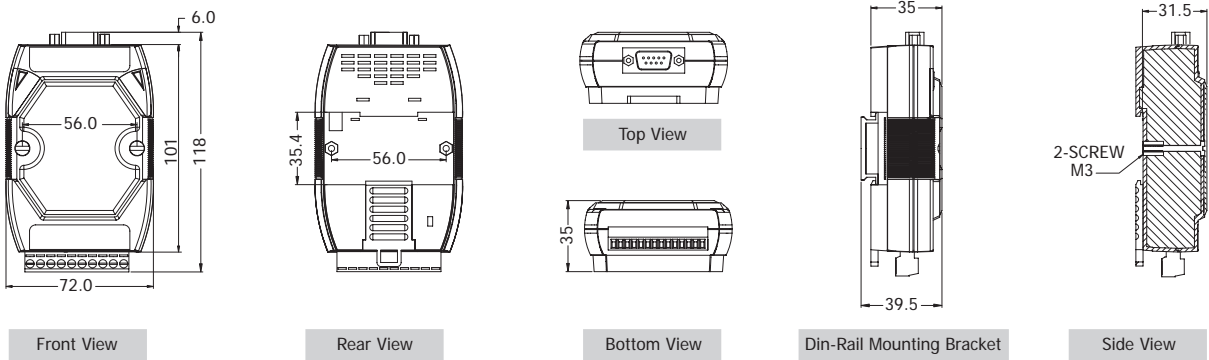


### Pin Assignments

I-7520/I-7520R					I-7520A/I-7520AR				
Terminal No.	Pin Assignment	Pin Assignment	Terminal No.	Pin Assignment	Terminal No.	Pin Assignment	Pin Assignment	Terminal No.	Pin Assignment
RS-485	01	DATA+	01	DATA1+	RS-485	01	DATA1+	01	DATA+
	02	DATA-	02	DATA1-		02	DATA1-	02	DATA-
	03	--	03	--		03	--	03	--
	04	--	04	TxD		04	TxD+	04	TxD
	05	--	05	RxD		05	TxD-	05	RxD
	06	--	06	--	RS-422/485	06	RxD+/DATA2+	06	--
	07	--	07	--		07	RxD-/DATA2-	07	GND
	08	--	08	--		08	--	08	--
	09	(R)+Vs	09	(R)+Vs		09	(R)+Vs	09	(R)+Vs
	10	(B)GND	10	(B)GND		10	(B)GND	10	(B)GND

RS-232: Female DB-9 Connector

### Dimensions (Unit: mm)



### Ordering Information

I-7520 CR	Isolated RS-232 to RS-485 Converter (RoHS)
I-7520A CR	Isolated RS-232 to RS-422/485 Converter (RoHS)
I-7520-G CR	Isolated RS-232 to RS-485 Converter (Gray Cover) (RoHS)
I-7520A-G CR	Isolated RS-232 to RS-422/485 Converter (Gray Cover) (RoHS)
I-7520R CR	RS-232 to Isolated RS-485 Converter (RoHS)
I-7520AR CR	RS-232 to Isolated RS-422/485 Converter (RoHS)
I-7520R-G CR	RS-232 to Isolated RS-485 Converter (Gray Cover) (RoHS)
I-7520AR-G CR	RS-232 to Isolated RS-422/485 Converter (Gray Cover) (RoHS)

### Accessories

GPSU06U-6	24 Vdc/0.25 A, 6 W Power Supply
DIN-KA52F	24 Vdc/1.04 A, 25 W Power Supply with Din-Rail Mounting
I-7510 CR	Isolated RS-485 Repeater (RoHS)
I-7510A CR	Isolated RS-422/485 Repeater (RoHS)
CA-0915	9-Pin Male-Female D-Sub Cable, 1.5 m