

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_{dc}
- DIN-Rail
- 3000 V_{dc} Isolation Protection on the RS-485 side
- Transmission Speed of up to 115200 bps
- Operating Temperatures, -25 °C ~ +75 °C

Introduction

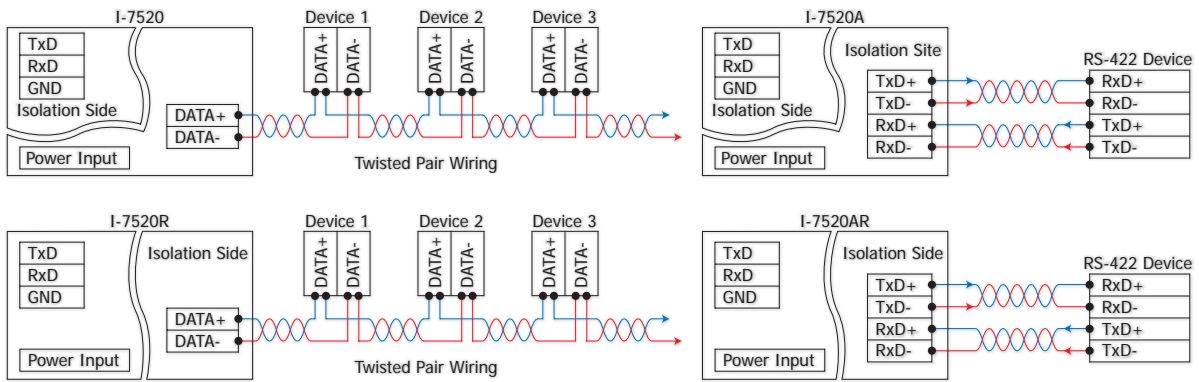
Most industrial computer systems provide standard RS-232 serial ports. Though widely accepted, RS-232 has limited transmission speed, range, and networking capabilities. The RS-422 and RS-485 standards overcome these limitations by using differential voltage lines for data and control signals, which 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
Interface				
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 _{dc} 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		
LED Indicators				
Power/Communication	Yes			
Power				
Input Voltage Range	+10 V _{dc} ~ +30 V _{dc} (Non-isolated)			
Power Consumption	1.2 W			
Mechanical				
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			
Environment				
Operating Temperature	-25 °C ~ +75 °C			
Storage Temperature	-30 °C ~ +75 °C			
Humidity	10 ~ 90% RH, non-condensing			

Applications

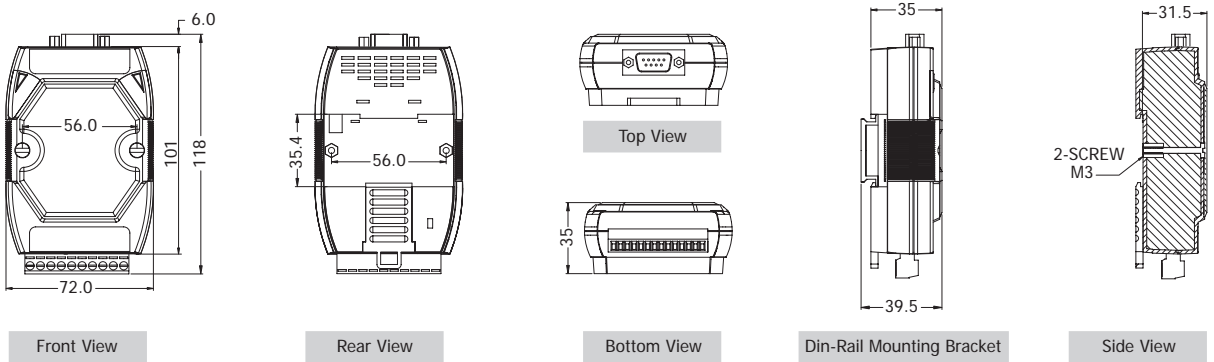


Pin Assignments

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	06	RS-485	01	DATA1+	01	06
	02	DATA-	02	07		02	DATA1-	02	07
	03	--	03	08		03	--	03	08
	04	--	04	09		04	TxD+	04	09
	05	--	05	05		05	TxD-	05	05
	06	--	06	04		06	RxD+/DATA2+	06	04
	07	--	07	03		07	RxD-/DATA2-	07	03
	08	--	08	02		08	--	08	02
	09	(R)+Vs	09	01		09	(R)+Vs	09	01
	10	(B)GND	10	10		10	(B)GND	10	10

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



(RS-232)

CE

ICP CON

•  -7520

RS-232 to RS-485
Converter

- Variable Baud Rate
300...9600...115K
- Variable Data Format

SELF-TUNING

3000V Isolation on RS-232

DATA+ 1
DATA-

(RS-485)

(R)
V_s

(B)
GND 10