

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

Introduction

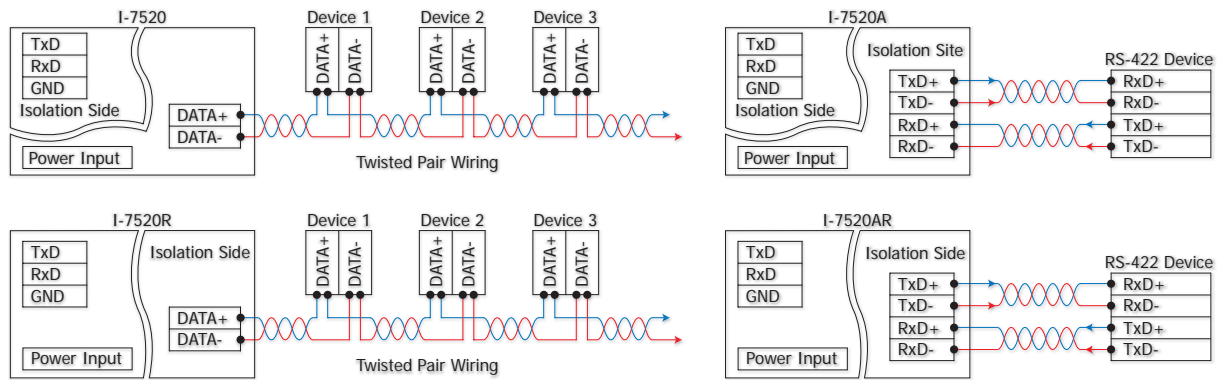
Most industrial computer systems provide standard RS-232 serial ports. Though widely accepted, RS-232 has limited transmission speed, range, and networking capabilities. The RS-422 and RS-485 standards overcome these limitations by using differential voltage lines for data and control signals, which 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- The RS-422 and RS-485 cannot be used simultaneously
	RS-485	Data+, Data-		
Transmission 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
Connector	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		
Dimensions (W x H x D)		72 mm x 118 mm x 35 mm		
Installation		DIN-Rail Mounting		
Environment				
Operating Temperature		-25 °C ~ +75 °C		
Storage Temperature		-30 °C ~ +75 °C		
Humidity		10 ~ 90% RH, non-condensing		

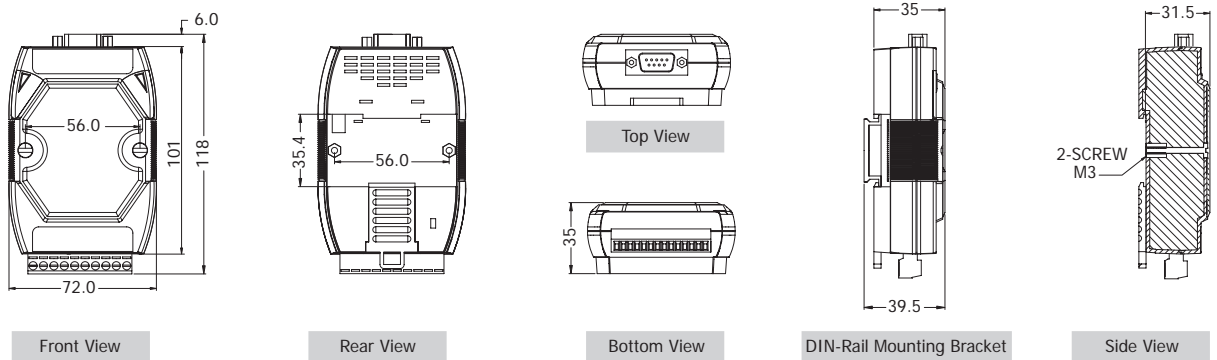
Applications



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	01	DATA1+	01	DATA1+	01	01	DATA1+
	02 DATA-	02	02	DATA1-	02	DATA1-	02	02	DATA1-
	03 --	03	03	--	03	--	03	03	--
	04 --	04	04	--	04	--	04	04	--
	05 --	05	05	--	05	--	05	05	--
	06 --	06	06	--	06	--	06	06	--
	07 --	07	07	--	07	--	07	07	--
	08 --	08	08	--	08	--	08	08	--
	09 (R)+Vs	09	09	(R)+Vs	09	(R)+Vs	09	09	(R)+Vs
	10 (B)GND	10	10	(B)GND	10	(B)GND	10	10	(B)GND

Dimensions (Units: 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