



I-7510/I-7510A

Isolated RS-422/485 Repeater/Converter

Features

- Automatic RS-485 Direction Control
- Transmission Speed of up to 115200 bps
- 2-way 3000 Vdc Isolation Protection
- ESD Protection for RS-485 Data Line



Introduction

The I-7510 provides 2-way optical isolation between one piece of RS-485 equipment and the rest of the system. It can also be used as a repeater to extend the transmission of an existing network. Additionally, an RS-485 system can be expanded beyond the 256 node limitation imposed by the standard. It can also be used to convert a 2-wire RS-485 signal, and vice versa.

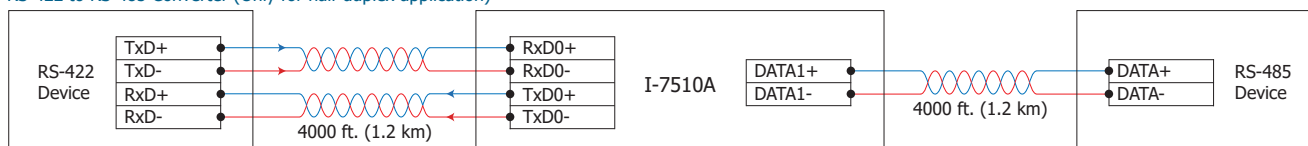
System Specifications

Models		I-7510	I-7510A
Interface			
Serial Interface	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	
Isolated Voltage		2-way 3 kV Isolated	
Connector		Removable 10-Pin Terminal Block x 2	
LED Indicators			
Power/Communication		Yes	
Power			
Input Voltage Range		+10 Vdc ~ +30 Vdc	
Power Consumption		2.2 W	
Mechanical			
Casing		Plastic	
Dimensions (W x L x H)		72 mm x 35 mm x 122 mm	
Installation		DIN-Rail Mounting	
Environment			
Operating Temperature		-25 °C ~ +75 °C	
Storage Temperature		-30 °C ~ +75 °C	
Humidity		10 ~ 90% RH, non-condensing	

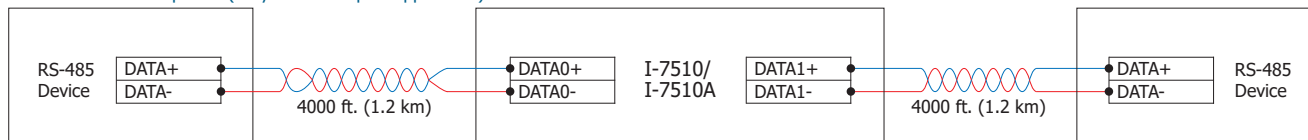
Applications

Applications for RS-422/485

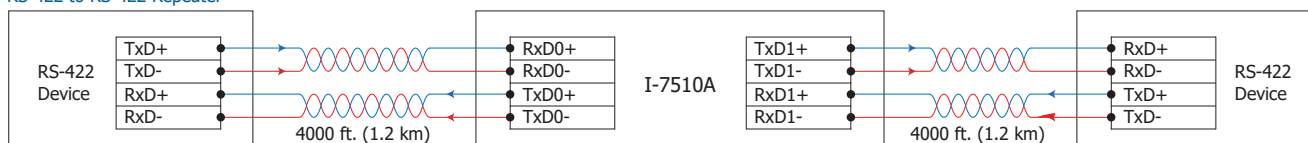
RS-422 to RS-485 Converter (Only for half duplex application)



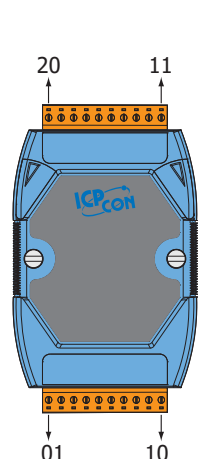
RS-485 to RS-485 Repeater (Only for half duplex application)



RS-422 to RS-422 Repeater



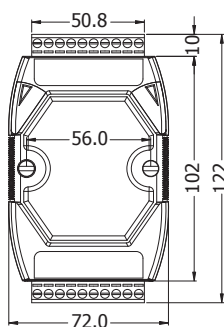
Pin Assignments



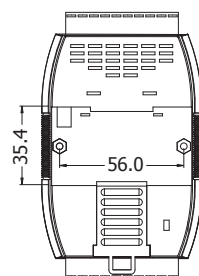
I-7510			
Terminal No.	Pin Assignment	Terminal No.	Pin Assignment
01	DATA+	20	DATA1+
02	DATA-	19	DATA1-
03	--	18	--
04	--	17	--
05	--	16	--
06	--	15	--
07	--	14	--
08	--	13	--
09	(R)+Vs	12	--
10	(B)GND	11	--

I-7510A			
Terminal No.	Pin Assignment	Terminal No.	Pin Assignment
RS-485	01 DATA0+	RS-485	20 DATA1+
	02 DATA0-		19 DATA1-
	03 --		18 --
RS-422	04 RxD0+	RS-422	17 TxD1+
	05 RxD0-		16 TxD1-
	06 TxD0+		15 RxD1+
	07 TxD0-		14 RxD1-
	08 --		13 --
	09 (R)+Vs		12 --
	10 (B)GND		11 --

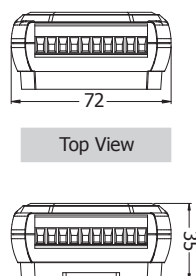
Dimensions (Units: mm)



Front View

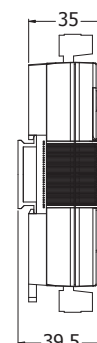


Rear View

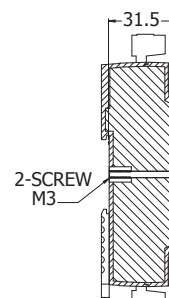


Top View

Bottom View



Din-Rail Mounting Bracket



Side View

Ordering Information

I-7510 CR	Isolated RS-485 Repeater (RoHS)
I-7510A CR	Isolated RS-422/485 Repeater/Converter (RoHS)

Accessories

GPSU06U-6 CR	Power Supply, 110~240 V _{AC} to 24 V _{DC} /0.25 A, 6 W, two pins USA plug (RoHS)
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