



I-7510P

Three Way 5 kV Isolated RS-485 Repeater

Features

- Automatic RS-485 Direction Control
- Transmission Speed of up to 115200 bps
- ESD Protection for RS-485 Data Line
- 3-way 5000 Vdc (IEC 60664-1 section 6.1.2.2.1) Isolation Protection



Introduction

The I-7510P provides 3-way optical isolation between one piece of RS-485 power side 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.

The I-7510P is exactly the same as the I-7510, except for the isolation side. The isolation side of the I-7510 is located in the input interface circuit, but the isolation side of the I-7510P is located in the input and output interface circuit. In other words the I-7510P is 3-way isolation repeater module.

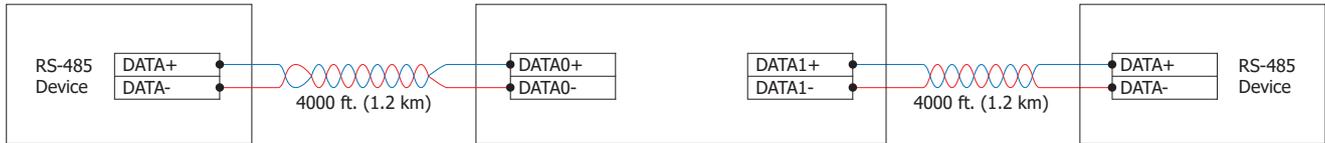
System Specifications

Interface		
Serial Interface	RS-422	-
	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	3-way 5 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	

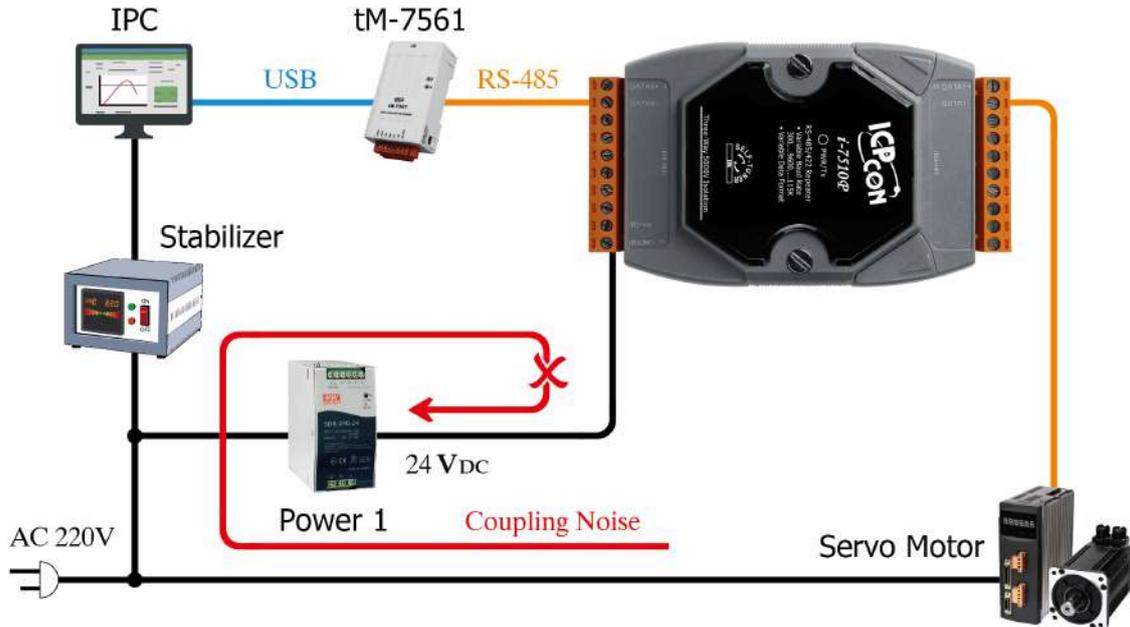
Applications

Applications for RS-485

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



Applications for 3-way isolation

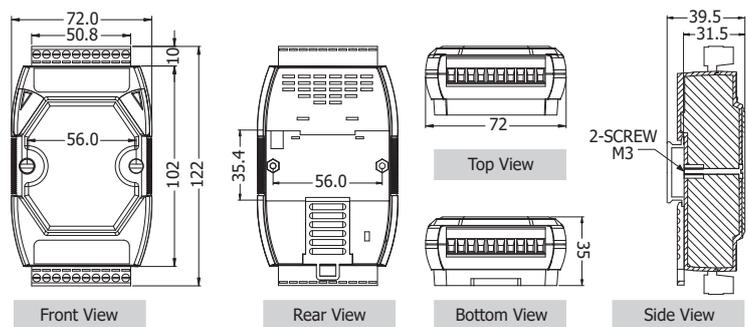


Pin Assignments



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	--

Dimensions (Units: mm)



Ordering Information

I-7510P CR Three Way 5 kV Isolated RS-485 Repeater (Gray Cover) (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)