

4.3. RS-485 Star Wiring Hub



Features

- RS-485 Active Star Wiring Applications
- Auto Switching Baud Rate, 300 ~ 115200 bps
- 3000 V_{DC} Three Way Isolation Protection
- ESD Protection for the RS-485 Data Line
- Power Input, +10 ~ +30 V_{DC}
- Operating Temperatures, -25 °C ~ +75 °C
- DIN-Rail



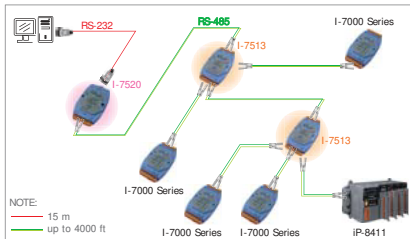
Introduction

The I-7513 is a 3-ch RS-485 Active Star Wiring Hub. The unit has three independent RS-485 output channels, each with their own driver, which can transmit signals across 4,000 ft (1200 m) of cable on each channel.

The I-7513 includes both Hub and Repeater functions, so each output channel can be connected to another hub.

The isolation site of the I-7513 is located in the input and output interface circuit. In other words, the I-7513 is a three-way isolation module.

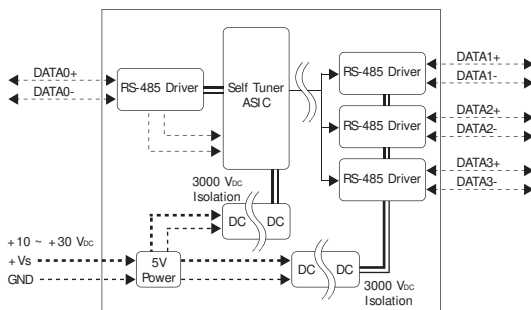
Applications



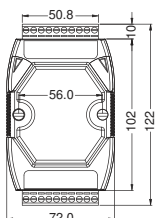
Specifications

| | |
|--|---|
| Interface | |
| Input | 1 RS-485 Channel: Data+, Data- |
| Output | 3 RS-485 Channels: Data+, Data- |
| 2-wire Cabling | Belden 8941 (2P twisted-pair cable), if different cables are used, the transmission distance may change |
| Transfer Distance | Max. 1,200 m at 9.6 kbps; Max. 400 m at 115.2 kbps |
| Max. Devices Supported | 256 (Each channel) |
| Self-Tuner Asic Inside | Yes |
| Speed | 300 ~ 115200 bps |
| ESD Protection | Yes |
| 3000 V _{DC} Three Way Isolated Protection | Yes |
| Connection | Removable 10-Pin Terminal Block x 2 |
| LED Indicators | |
| Power/Communication | Yes |
| Power | |
| Input Voltage Range | +10 V _{DC} ~ +30 V _{DC} (Non-isolated) |
| Power Consumption | 2.16 W |
| Mechanical | |
| Casing | Plastic |
| Flammability | Fire Retardant Materials (UL94-V0 Level) |
| Dimensions (W x H x D) | 72 mm x 122 mm x 35 mm |
| Installation | DIN-Rail |
| Environment | |
| Operating Temperature | -25 °C ~ +75 °C |
| Storage Temperature | -30 °C ~ +75 °C |
| Humidity | 10 ~ 90% RH, non-condensing |

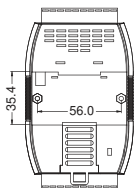
Internal I/O Structure



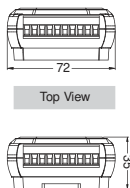
Dimensions (Unit: mm)



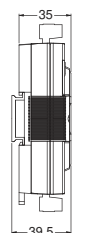
Front View



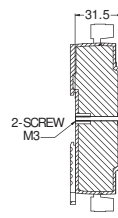
Back View



Bottom View



Din-Rail Mounting Bracket



Side View

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 | DATA2+ |
| 07 | -- | 14 | DATA2- |
| 08 | -- | 13 | -- |
| 09 | (F)+ Vs | 12 | DATA3+ |
| 10 | (B)GND | 11 | DATA3- |

Ordering Information

| | |
|-------------|--|
| I-7513 CR | Three Way Isolated RS-485 Active Star Wiring Hub (RoHS) |
| I-7513-G CR | Three Way Isolated RS-485 Active Star Wiring Hub (Gray Cover) (RoHS) |

Accessories

| | |
|-----------|--|
| GPSU06U-6 | 24 V _{bc} /0.25 A, 6 W Power Supply |
| DIN-KA52F | 24 V _{bc} /1.04 A, 25 W Power Supply with Din-Rail Mounting |