

Octopus3000

8-port cards insert Optical Isolation RS-485/422 Hub

Features

1. 8 ports cards insert optical isolation RS485/422 HUB
2. Star structure, bi-directional Converter RS232 to RS485/422 or RS485/422 repeater
3. Reach up to 3000m at the rate of 9600bps
4. 600W surge protection, 15KV ESD protection, built-in short circuit protection
5. Each port 3000V optical isolation separately
6. Support stage connection, each port support 256 nodes loopback
7. Data direction auto-turnaround, no flow control is necessary



Introduction

Octopus3000 is a type of RS-485/422 bus division concentrator of high performance. Octopus3000 adopts the unique equipotential differential isolation and bus division concentration technology to effectively solve such problems as ground potential difference, impedance matching and lightning strike frequently seen in engineering wiring process. Users can easily optimize the RS-485/RS-422 bus structure, divide the network section and improve the communication reliability.

The fault network section shall be isolated in case of lightning strike or equipment faults to ensure the high communication reliability of other network sections. Such performance of Octopus3000 can significantly improve the reliability of existing RS-485/RS-422 network, and effectively shorten the network maintenance time. Reasonable utilization of Octopus3000 can enable you to design unique RS-485/RS-422 system.

Insert Card Structure

Octopus3000 is a type of 8-port insert card photoelectric isolation RS-485/422 bus division concentrator, which is available for random configuration of insert card by users, and can also realize the dual conversion between RS-232 and RS-485/RS-422 as well as he

RS-485/422 relay function. It is only need to replace or add insert card in case of damage and capacity expansion to effectively improve the maintenance efficiency.

Photoelectric Isolation of Industrial Level

Normally, RS-485 bus is required to link up different equipments for coordinated operation in industrial control domain. Due to environmental differences, ground potential differences among equipments may affect the normal communication of equipments. Octopus3000 aims to provide photoelectric isolation above 3KV for all

ports for the purpose of solving the transmission problems incurred by distance and differences in ground potential (Octopus3000 can adapt to the RS-485/422 transmission mode, which is provided with 5-digit industrial terminal).

Protection for Short and Open Circuits

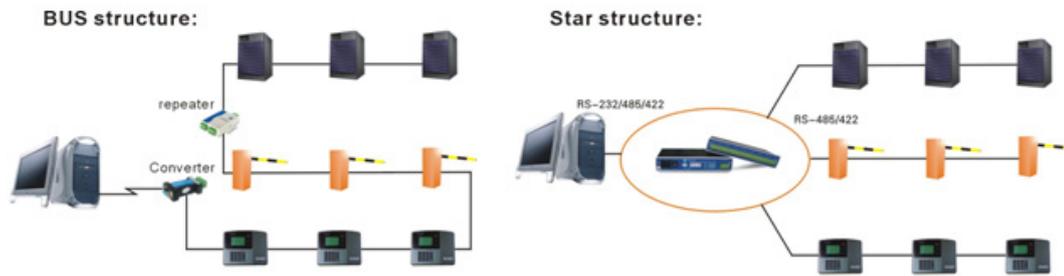
Octopus3000 is provided with protection for short and open circuits at all ports. This type of design can ensure the isolation of problem port if

one of the port equipments is in failure so as to ensure the normal operation of other network sections.

Star-shape Connection

Owing to the unique design, Octopus3000 can provide users with RS-485/422 star-shape connection mode. This mode can change the

single structure of original bus into network structure to facilitate the engineering construction significantly.

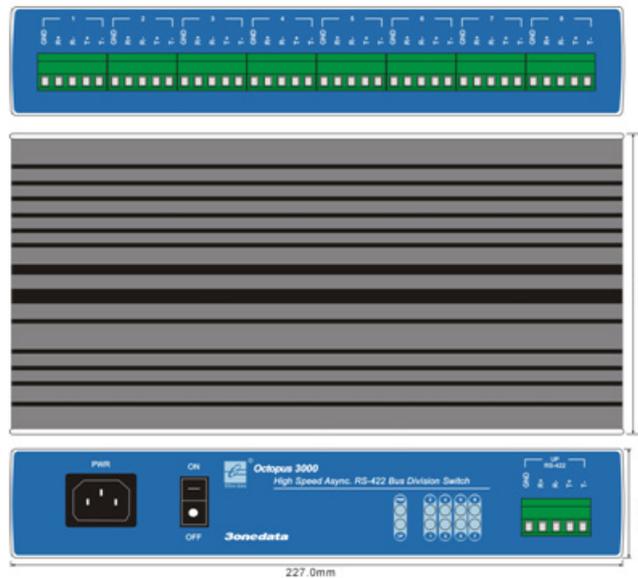


Bus Division Concentration

Octopus3000 can easily optimize the system bus structure for respective handling of equipments of different functions or of different regions for the purpose constituting different independent network

sections without changing equipment itself. This can not only improve the system stability but can also significantly shorten the system maintenance time.

Dimension



Specification

Standards: EIA RS-232C, RS-485, RS422 standard

RS-232 signal: TX, RX, GND

RS-422 signal: T+, T-, R+, R-, GND

RS-485 signal: D+, D-, GND

Working mode: Asynchronism, point to point, 2 wire half-duplex, 4 wire full duplex

Baud rate: 300~115200bps, auto test serial signal rate detect signal speed automatically, zero delay time

Flow control: Data direction auto-turnaround, no flow control is required

Transfer distance: RS-485/422 side: 1.8Km(9600bps)
RS-232 side: no less than 15m

Loading: Support 256 nodes loopback

Optical isolation: 3000V

Port protection: 600W surge protection, 15KV ESD protection

Connector: 5 bit terminal block

Power

Power input: 220VAC

Consumption: 5W

Environment

Operating temperature: -10°C to 60°C

Storage temperature: -40°C to 85°C

Humidity: 5% to 95%(no condensation)

Appearance

Dimensions: 227.0mm×146.0mm×43.0mm

Material: Plastic

Color: Black

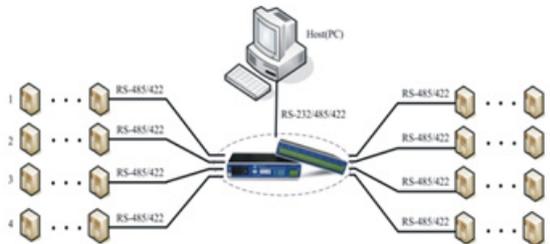
Weight: 1000g

Warranty: 3 years

Approvals: FCC, CE, RoHS approvals

Applications

Octopus3000 representative exert as follows:



1. Up stream port

Octopus3000 has one UP stream port, adopt 5 bit terminal block, be used to connect UP stream equipment like as Host PC. According to users different require, You can choice RS-232, RS-485 or RS-422 mold to connect main equipment,the pin is defined in the products.

2. Down stream port

Octopus3000 has eight Down stream port, adopt 5 bit terminal block, be used to connect Down stream equipment like as Pos data collection equipment. According to users different require, You can choice RS-485 or RS-422 mode to connect Down stream main equipment. the pin is defined in the products.

Packing List

1. Octopus3000×1
2. 220V power line×1
3. User manual ×1