IDS-5012

3

Industrial Device Server

› *Industrial 1-port secure serial to Ethernet device server with 1xRS-232/422/485 and 2x10/100Base-T(X)*

Features

- Operating Modes : Virtual Com, Serial Tunnel, TCP Server, TCP Client, UDP

- Redundant multiple host devices :
  5 host devices : Virtual COM, TCP Server, TCP Client mode
  4 IP ranges : UDP

- NAT Pass-Through : the user can manage IDS-5012 through NAT router

- Security : SSL data encryption ; secured management by HTTPS and SSH
  IP Access : IP White List

- Internet Communication : PPPoE authentication

- Update DNS Hostname : DDNS

- Dual redundant Ethernet port support redundant mode
  (Recovery time < 10ms)

- Ethernet switch mode enable Daisy Chain

- Event Warning by Syslog, Email, SNMP trap, and Beeper

- Configurable by Web-based and Windows utility (DS-Tool)

- Various Windows O.S. supported :
 Windows NT/2000/ XP/ 2003/VISTA(32/64bit)/Windows 7(32/64bit)

Introduction

IDS-5012 is an innovative secure 1-port RS-232/422/485 to 2 port LAN serial to Ethernet device server featuring the standard features of device server, such like TCP/IP interface and versatile operation modes: Virtual Com, Serial Tunnel, TCP Server, TCP Client, UDP. In addition, the Windows utility, DS-Tool, could configure multiple devices and set up the mappings of Virtual Com. The features of NAT Router Pass-Through, DDNS, and PPPoE make it more convenient for administrators to configure ORing's device servers through NAT router from different IP domains or Internet via modem remotely. On the other hand, IDS-5012 can simultaneously transfer data up to 5 redundant host PCs to aovid Ethernet connection breakdown or any host PC fails. Further, IDS-5012 features HTTPS, SSH, and SSL encryption to assure the security of critical data transmission.

IDS-5012 supports RS-232/422/485 and provides dual redundant power inputs, 12~48 VDC, on DC power jack and terminal block to guarantee a non-stop operation. With wide operating temperature, -10~60℃, and rugged IP-30 housing design, IDS-5012 could operate in the harsh industrial environment. Therefore, IDS-5012 is the best solution to the high demand of secure serial to Ethernet critical data communication.
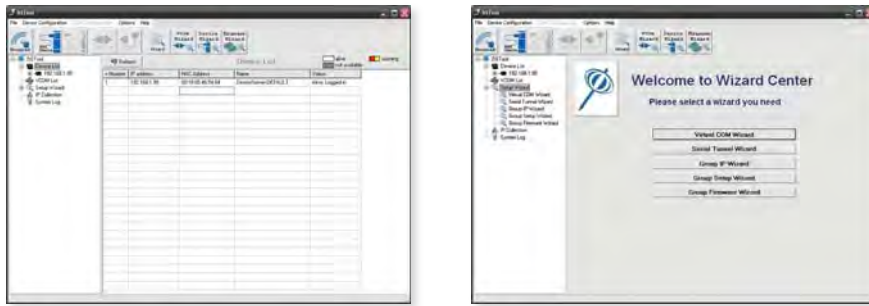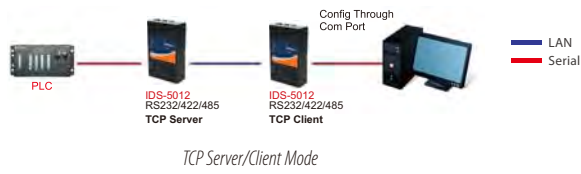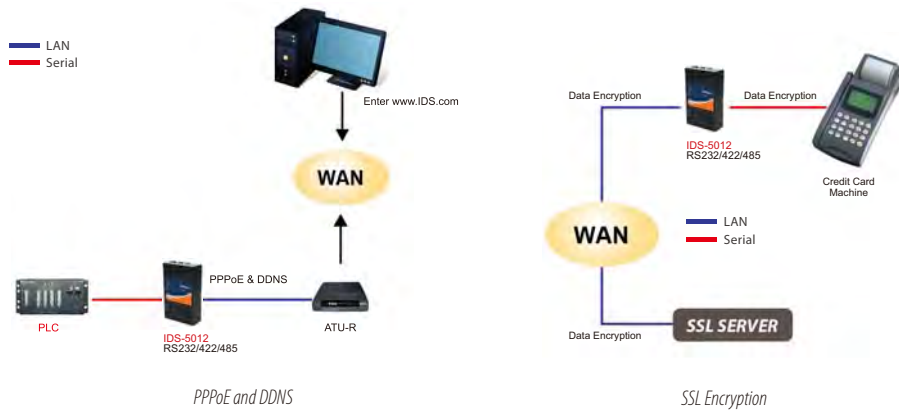
Practical Operation

In practical operation of serial device servers, Windows utility (DS-Tool) is supported. This utility is very helpful for you to manage and monitor all of industrial device servers in the industrial network.
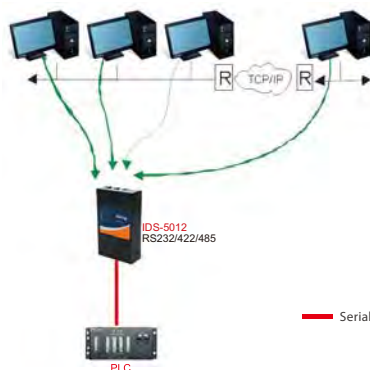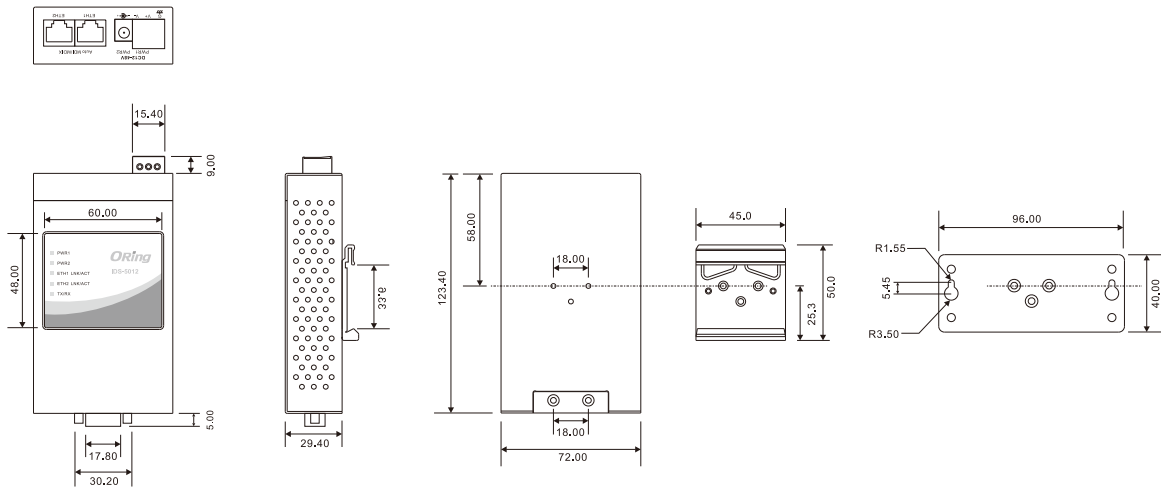

Multiple Host PCs
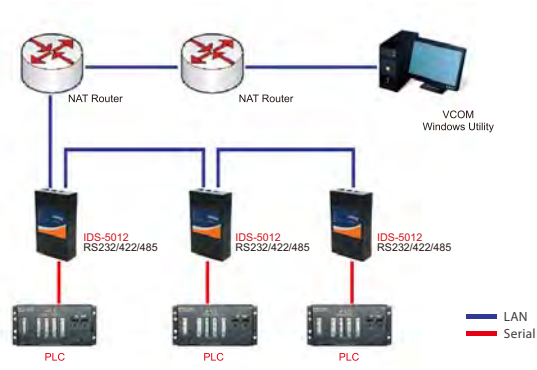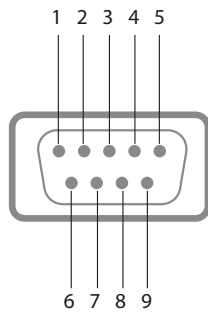

NAT Router Pass-Through and Ethernet Switch Mode

PPPoE and DDNS

SSL Encryption

TCP Server/Client Mode

DS-Tool (Windows Utility) : Monitoring and Configuration interface

Dimensions

Unit=mm

Pin Assignment

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1 2 3 4 5

6 7 8 9
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DB9(male) connector

Pin #	RS-232	RS-422	RS-485 (4 wire)	RS-485 (2 wire)
1	DCD	RXD -	RXD -	-
2	RXD	RXD +	RXD +	-
3	TXD	TXD +	TXD +	DATA +
4	DTR	TXD -	TXD -	DATA -
5	GND	GND	GND	GND
6	DSR	-	-	-
7	RTS	-	-	-
8	CTS	-	-	-
9	RI	-	-	-
RS-232 mode act as DTE				

Specifications

ORing Device Server Model	IDS-5012
Physical Ports	
10/100Base-T(X) Ports in RJ45 Auto MDI/MDIX	2
Serial Ports	
Connector	DB9(male) x 1
Operation Mode	RS-232 / RS-422 / 4(2)-Wire RS-485. Which can be configured by DS-Tool
Serial Baud Rate	110 bps to 460.8 Kbps
Data Bits	5, 6, 7, 8
Parity	odd, even, none, mark, space
Stop Bits	1, 1.5, 2
RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, RI, GND
RS-422	Tx+,Tx-, Rx+, Rx-,GND
RS-485 (4-wire)	Tx+,Tx-, Rx+, Rx-,GND
RS-485 (2-wire)	Data+, Data-,GND
Flow Control	XON/XOFF, RTS/CTS, DTR/DSR
Network Features	
Network Protocols	ICMP, IP, TCP, UDP, DHCP, BOOTP, SSH, DNS, SNMP V1/V2c, HTTPS, SMTP, SSL, PPPoE, DDNS
LED Indicators	

Power Indicator	PWR 1(2) / Ready:
	    Red On : Power is on and booting up.
	    Red Blinking : Indicates an IP conflict, or DHCP or BOOTP server did not respond properly.
	    Green On : Power is on and functioning Normally.
	    Green Blinking : Located by Administrator.

10/100Base-T(X) RJ45 Port Indicator	Green for port Link/Act at 100Mbps. Amber for port Link/Act at 10Mbps.
Serial TX / RX LEDs	Red : Serial port is receiving data Green : Serial port is transmitting data
Power	
Redundant Input Power	Dual DC inputs. 12~48VDC on 3-pin terminal block and power jack
Power Consumption (Typ.)	4 watts

Overload Current Protection	Present
Reverse Polarity Protection	Present on terminal block
Physical Characteristics	
Enclosure	IP-30
Dimensions (W x D x H)	72(W) x 29.4(D) x 123.4(H) mm (2.83x1.16x4.86 inch.)
Weight (g)	327 g
Environmental	
Storage Temperature	-40 to 85℃ (-40 to 185℉)
Operating Temperature	-10 to 60℃ (14 to 140℉)
Operating Humidity	5% to 95% Non-condensing
Regulatory Approvals	
EMI	FCC Part 15, CISPR (EN55022) class A
EMS	EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11
Shock	IEC60068-2-27
Free Fall	IEC60068-2-32
Vibration	IEC60068-2-6
Safety	EN60950-1
MTBF (Hours) (MIL-HDBK-217F2, GB, GC, 25℃)	533,615
Warranty	5 years

Ordering Information

IDS-50 A B

Code Definition	Serial Port Number	Ethernet Port Number
Option	**- 1:** 1 port	**- 2:** 2 ports

Available Model	Model Name	Description
	IDS-5012	Industrial 1-port secure serial to Ethernet device server with 1xRS-232/422/485 and 2x10/100Base-T(X)

Packing List
- IDS-5012
- DIN-Rail Kit
- Wall-mount Kit
- ORing Tool CD
- Quick Installation Guide

Optional Accessories (Can be purchased separately)
- DR-45 series, 45W DIN-Rail power supply
- DR-75 series, 75W DIN-Rail power supply
- DR-120 series, 120W DIN-Rail power supply
- PAA-121000, 12VDC/1000mA 12W Power Adapter, US plug
- PAE-121000, 12VDC/1000mA 12W Power Adapter, EU plug