

# Quick Installation Guide

# IDS-181A/141A

# Industrial Device Server

## Introduction

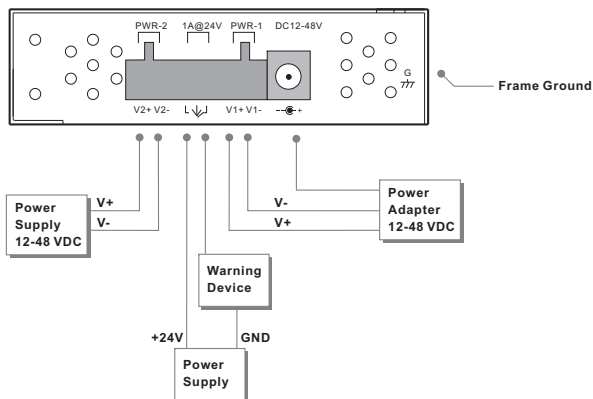
**IDS-181A/141A** is an innovative secure 8/4 port RS-232 to 1 port LAN serial to Ethernet device server featuring the standard features of device server, such like versatile operation modes: Virtual Com, Serial Tunnel, TCP Server, TCP Client, UDP, Ethernet mode. In addition, the Windows utility, DS-Tool, could configure multiple devices and set up the mappings of Virtual Com. The features of NAT Router Pass Through, and DDNS 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-181A/141A** can simultaneously transfer data up to 5 redundant host PCs to avoid Ethernet connection breakdown or any host PC fails. Further, **IDS-181A/141A** features HTTPS, SSH, and SSL encryption to assure the security of critical data transmission.

**IDS-181A/141A** provides dual redundant power inputs, 12~48 VDC on terminal block and DC power jack to guarantee a non-stop operation. With wide operating temperature, -40~70°C, and rugged IP-30 housing design, **IDS-181A/141A** could operate in the harsh industrial environment. Therefore **IDS-181A/141A** is the best solution to the high demand of secure serial to Ethernet critical data communication.

## Features

- > **Versatile Modes:** Virtual Com, Serial Tunnel, TCP Server, TCP Client, and UDP modes
- > **Multiple host devices:** 5 host devices: Virtual COM, TCP Server, TCP Client mode; 4 host devices: UDP
- > **NAT-pass through:** user can manage IDS-181A/141A through NAT router
- > **Security:** SSL data encryption; secured management by HTTPS and SSH; IP Access: IP Black List
- > **WAN Connection:** PPPoE authentication
- > **Update DNS Hostname:** DDNS
- > **Event Warning** by Syslog, Email, SNMP trap, and Relay
- > **Configurable** by Web-based and Windows utility (DS-Tool)
- > **Various Windows O.S. supported:** Windows NT/2000/XP/ 2003/VISTA/Window7(32-bit)

## Power Connection Guide



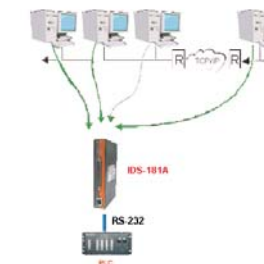
## Specifications

ORing Serial Media Converter Model	IDS-181A	IDS-141A
<b>Feature</b>		
10/100 Base-T(X) Ports in RJ45 Auto MDI/MDIX	1	1
<b>Serial Ports</b>		
RS-232 Serial port number	8	4
Connector	DB62 Female (provide DB62 to 8 ports DB9 cable)	DB62 Female (provide DB62 to 4 ports DB9 cable)
Operation Mode	RS-232	
Serial Baud Rate	110 bps to 115.2 Kbps	
Data Bits	5, 6, 7, 8	
Parity	odd, even, none, mark, space	
Stop Bits	1, 1.5, 2	
RS-232	Tx/D, Rx/D, RTS, CTS, DTR, DSR, DCD, GND	
Flow Control	XON/XOFF, RTS/CTS, DTR/DSR	
<b>Network Features</b>		
Network Protocols	ICMP, IP, TCP, UDP, DHCP, BOOTP, SSH, DNS, SNMP V1/V2c, HTTPS, SMTP, PPPoE, DDNS, SSL	
<b>LED Indicator</b>		
Power indicator	PWR 1 (2) / Ready : Green On : Power is on and CPU is booting up.	
Fault LED	Amber on: Ethernet link down; PWR 1 or PWR 2 fails (Fault LED for PWR fails is disable as default, but could be set up on WEB UI)	
10/100Base-TX RJ45 port indicator	Green for port Link/Act. Amber for 100Mbps.	
Serial TX / RX LEDs	Green Blinking: Serial port is transmitting data (TX/RX)	
<b>Power</b>		
Redundant Input power	Dual DC inputs. 12-48VDC on 6 pin terminal block and power jack	
Power consumption(Typ.)	4.5 Watts	3.7 Watts
Overload current protection	Present	
Reverse polarity protection	Present on terminal block	
<b>Physical Characteristic</b>		
Enclosure	IP-30	
Dimension (W x D x H)	94.9mm x 26.1mm x 144.3mm (3.74x1.03x5.68 inch)	
Weight (g)	358 g	355 g
<b>Environmental</b>		
Storage Temperature	-40 to 85°C (-40 to 185°F)	
Operating Temperature	-40 to 70°C (-40 to 158°F)	
Operating Humidity	5% to 95% Non-condensing	
<b>Regulatory approvals</b>		
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	
<b>Warranty</b>	5 years	

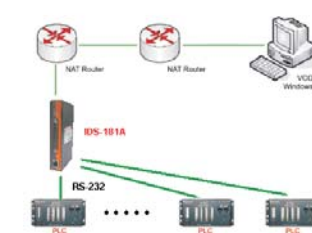
## Practical Operation

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 on the industrial network.

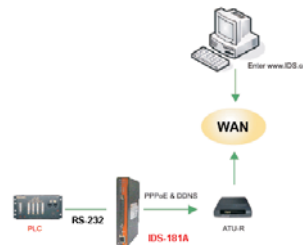
### Multiple Host PCs



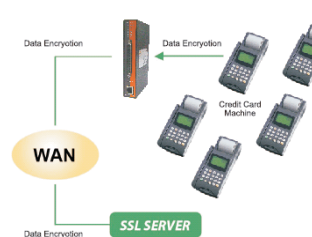
### NAT Router Pass Through



### PPPoE and DDNS



### SSL Encryption



### TCP Server/Client Mode



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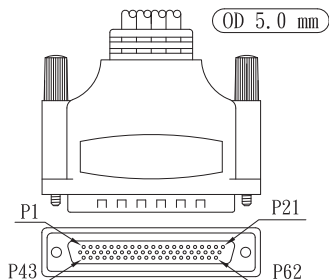
# IDS-181A/141A

# Industrial Device Server

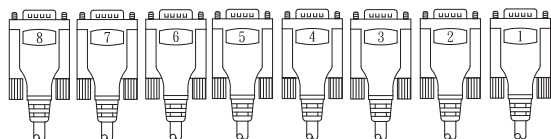
## Pin Definitions

Cable of DB62 male to 8-port DB9 male connector is provided. The cable length is 1 meter.

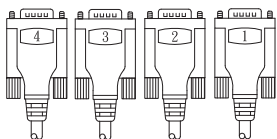
### DB62 Male connector



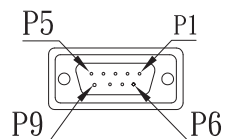
### 8-port DB9 Male connector



### 4-port DB9 Male connector



### DB9 Male Pin Assignment

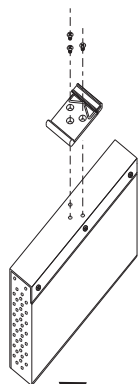


Pin #	RS-232
1	DCD
2	RXD
3	TXD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	N.C.

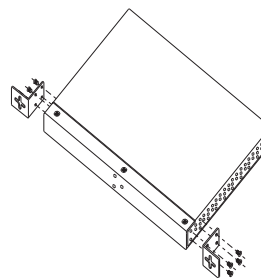
RS 232 mode act as DTE

## Installation

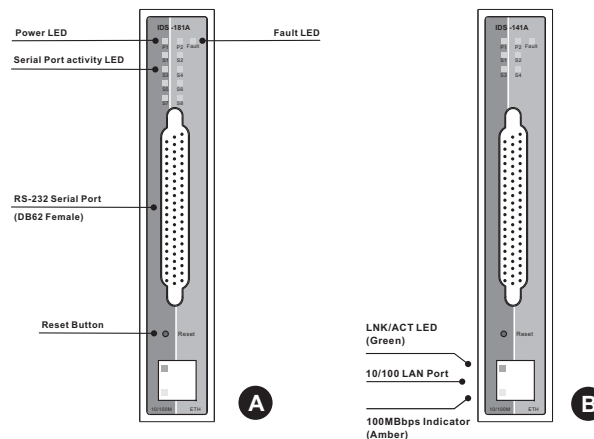
### DIN-Rail Install Step



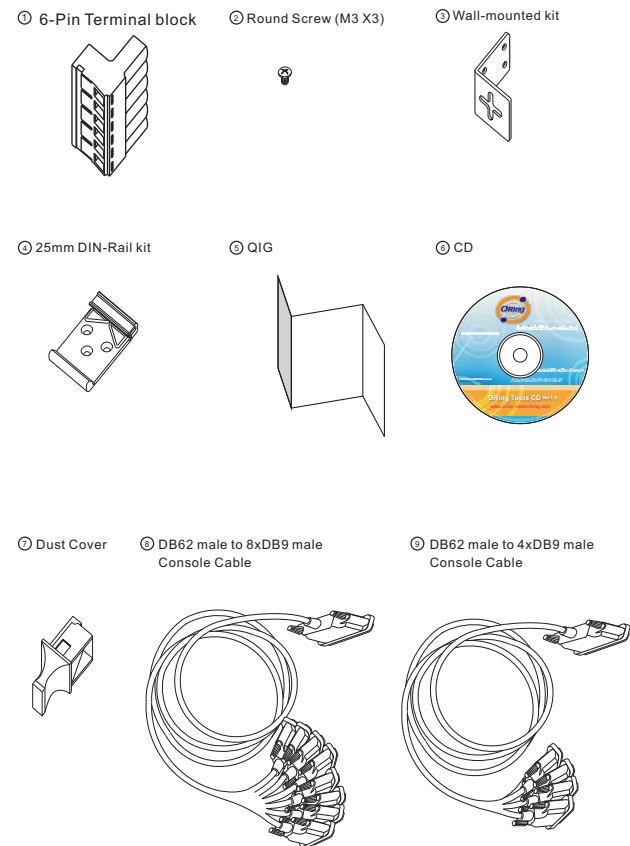
### Wall-mounted Install Step



## Front Panel



## Accessory



## Packing list

Model name	Front Panel	Model Description	Accessory
IDS-181A	<b>A</b>	Industrial 8-port slim type serial to Ethernet device server with 8xRS-232 and 1x10/100Base-T(X), DB62 connector	① X 1, ② X 8, ③ X 2, ④ X 1, ⑤ X 1, ⑥ X 1, ⑦ X 1, ⑧ X 1
IDS-141A	<b>B</b>	Industrial 4-port slim type serial to Ethernet device server with 4xRS-232 and 1x10/100Base-T(X), DB62 connector	① X 1, ② X 8, ③ X 2, ④ X 1, ⑤ X 1, ⑥ X 1, ⑦ X 1, ⑧ X 1