



IDS-141A/181A

Industrial 4-port/8-port slim type secure serial (RS-232) to Ethernet device server

Features:

- Operating Modes : Virtual Com, Serial Tunnel, TCP Server, TCP Client, UDP and **Modbus Gateway**
- 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-181A/141A through NAT router
- Security : SSL data encryption; secured management by HTTPS and SSH IP Access : IP White List
- 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(32/64-bit) / Windows 7(32/64-bit)



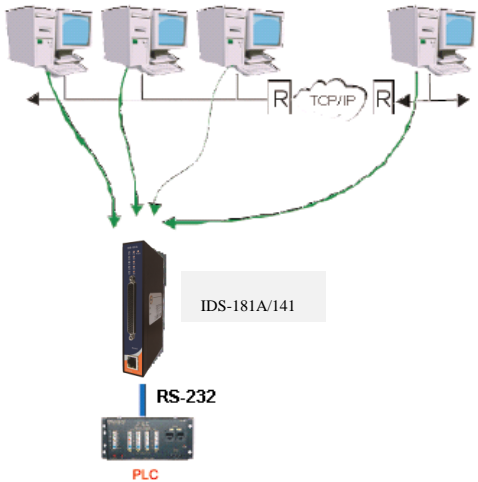
Introduction

IDS-181A/141A is an innovative secure 8-port/4-port RS-232 to 1-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, Ethernet modem. 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.

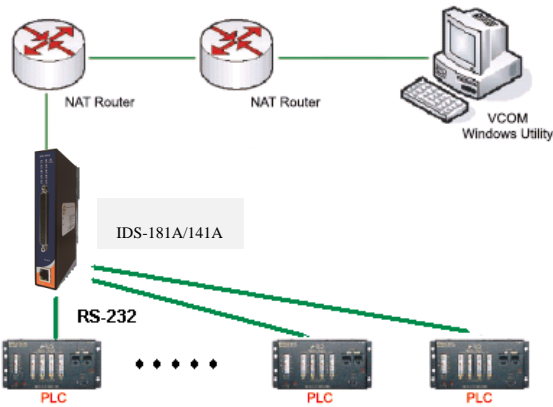
IDS-181A/141A provides dual redundant power inputs, 12~48VDC on terminal block and DC power jack to guarantee a non-stop operation. With wide operating temperature, -40~70°C, and rugged IP-30 housing design, IDS-181A/141A could operate in the harsh industrial environment. Therefore IDS-181A/141A is the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

Practical Operation

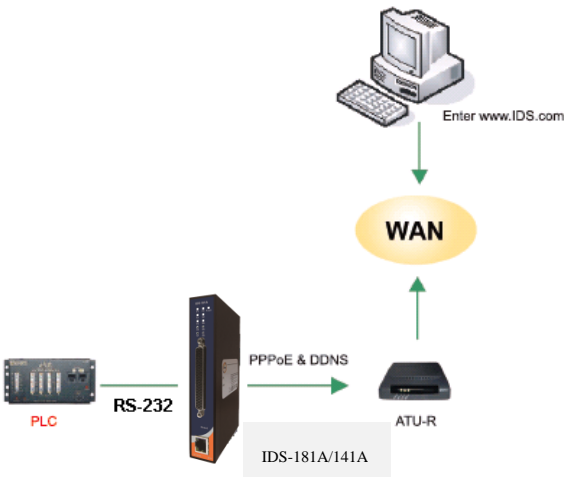
In practical operation of serial device servers, Windows utility (DS-Tool) is supported. This utility is very helpful for you to manage and monitor all of industrial device servers on the industrial network.



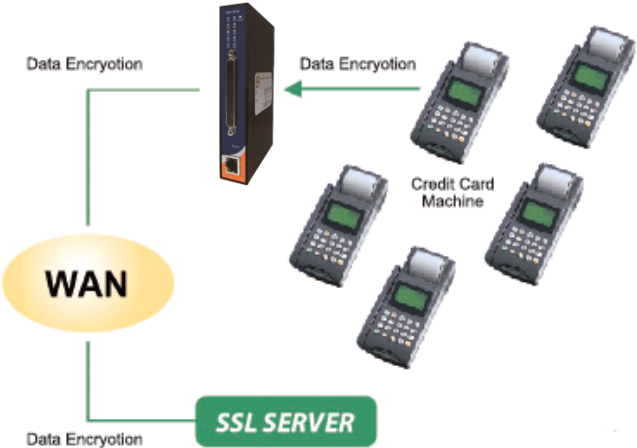
Multiple Host PCs



NAT Router Pass Through



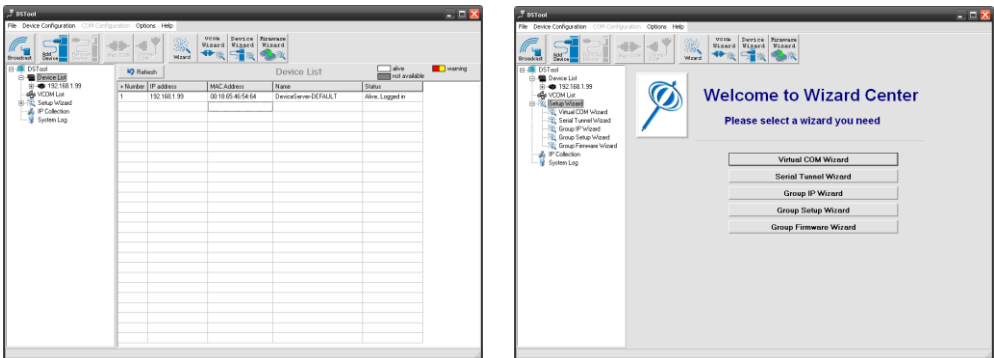
PPPoE and DDNS



SSL Encryption



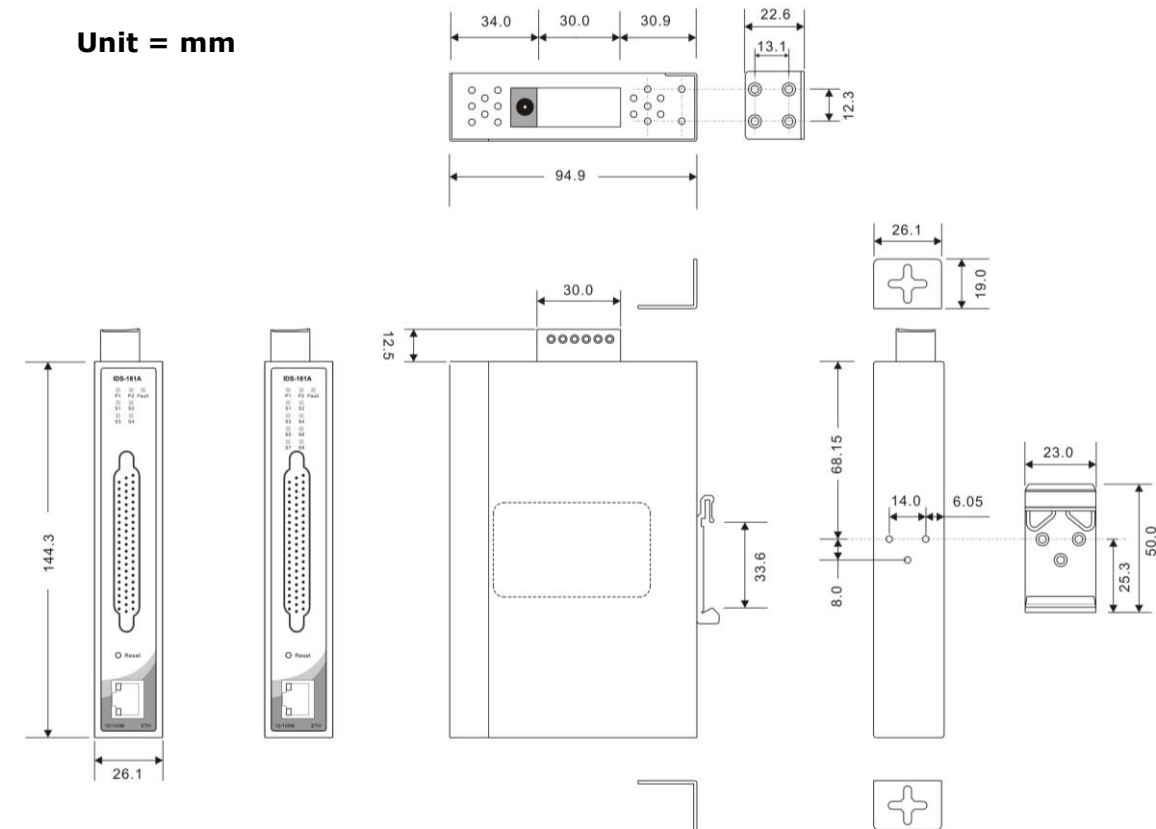
TCP Server/Client Mode



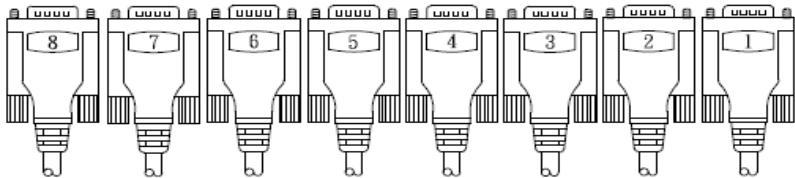
DS-Tool (Windows Utility): Monitoring and Configuration

Dimension

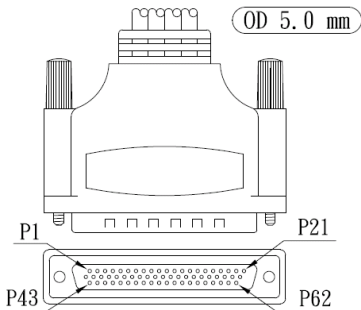
Unit = mm



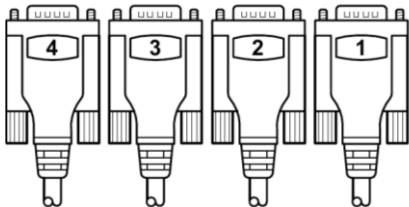
Pin Definitions



8-port DB9 Male connector

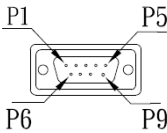


DB62 Male with 4/8-port RS-232 connector

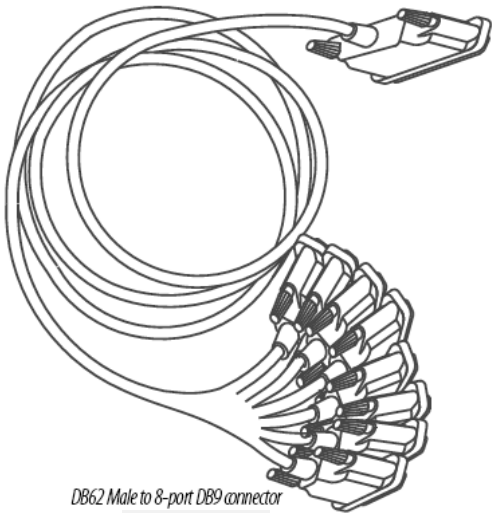


4-port DB9 Male connector

DB9 Male Pin Assignment

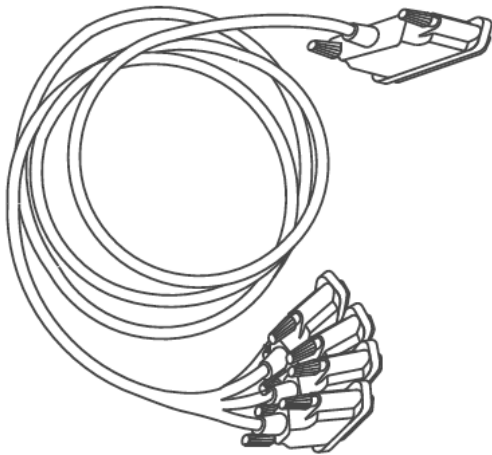


Pin #	RS 232
1	DCD
2	RXD
3	TXD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	N.C.
RS 232 mode act as DTE	



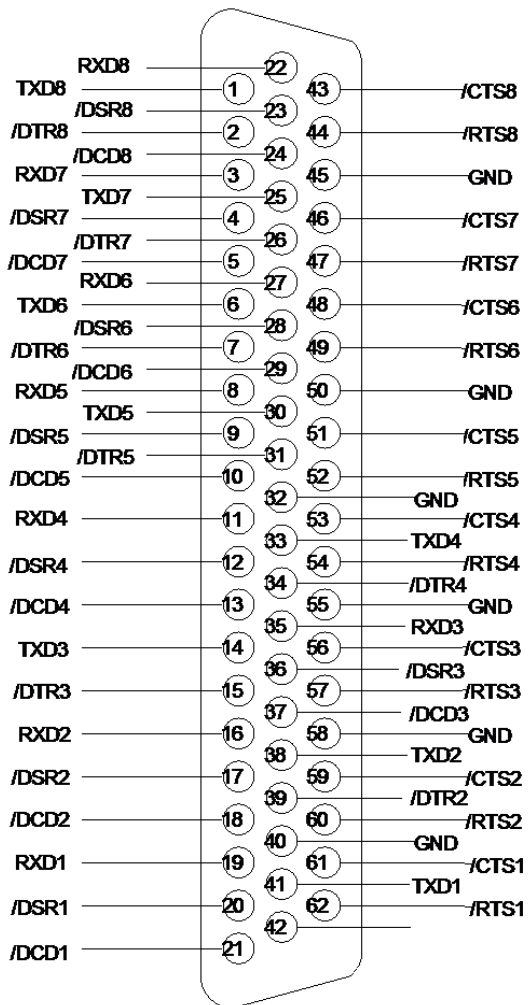
DB62 Male to 8-port DB9 connector

For IDS-181A



DB62 Male to 4-port DB9 connector

For IDS-141A



Pin #	RS 232	Pin #	RS 232
1	TXD8	32	GND
2	DTR8	33	TXD4
3	RXD7	34	DTR4
4	DSR7	35	RXD3
5	DCD7	36	DSR3
6	TXD6	37	DCD3
7	DTR6	38	TXD7
8	RXD5	39	DTR2
9	DSR5	40	GND
10	DCD5	41	TXD1
11	RXD4	42	DTR1
12	DSR4	43	CTS8
13	DCD4	44	RTS8
14	TXD3	45	GND
15	DTR3	46	CTS7
16	RXD2	47	RTS7
17	DSR2	48	CTS6
18	DCD2	49	RTS6
19	RXD1	50	GND
20	DSR1	51	CTS5
21	DCD1	52	RTS5
22	RXD8	53	CTS4
23	DSR8	54	RTS4
24	DCD8	55	GND
25	TXD7	56	CTS3
26	DTR7	57	RTS3
27	RXD6	58	GND
28	DSR6	59	CTS2
29	DCD6	60	RTS2
30	TXD5	61	CTS1
31	DTR5	62	RTS1

(S5~S8 only available for IDS-181A)

Table 3-2 Pin assignment

Specifications

ORing Device Server Model	IDS-181A	IDS-141A
Feature		
10/100 Base-T(X) Ports in RJ45 Auto MDI/MDIX	1	
Serial Ports		
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	1200 bps to 460.8Kbps	
Data Bits	7, 8	
Parity	odd, even, none, mark, space	
Stop Bits	1, 1.5, 2	
RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, 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	
LED indicators		
Power indicator	PWR 1(2) / Ready: Green On: Power is on and functioning Normally. Green Blinking: Located by Administrator.	
10/100TX RJ45 port indicator	Left LED : Amber for port Link speed at 100Mbps Right LED : Green for port Active	
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 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	
Physical Characteristic		
Enclosure	IP-30	
Dimension (W x D x H)	94.9 x 23 x 144.3 (mm)	
Weight (g)	358 g	355 g
Environmental		
Storage Temperature	-40 to 85°C (-40 to 185°F)	
Operating Temperature	-10 to 60°C (14 to 140°F)	
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	
Warranty	5 years	

Ordering Information

IDS-1ABA

Code Definition	Serial Port Number	10/100Mbps Ethernet Port Number
Option	- 4: 4 ports - 8: 8 ports	- 1: 1 ports

Available Model	Model Name	Description
	IDS-181A_US	Industrial 8-port slim type secure serial to Ethernet device server with 8xRS-232 and 1x10/100Base-T(X), DB62 connector, US adapter
	IDS-181A_EU	Industrial 8-port slim type secure serial to Ethernet device server with 8xRS-232 and 1x10/100Base-T(X), DB62 connector, EU adapter
	IDS-141A_US	Industrial 4-port slim type secure serial to Ethernet device server with 4xRS-232 and 1x10/100Base-T(X), DB62 connector, US adapter
	IDS-141A_EU	Industrial 4-port slim type secure serial to Ethernet device server with 4xRS-232 and 1x10/100Base-T(X), DB62 connector, EU adapter

Packing List

- IDS-141A/181A x 1
- CD x 1
- Quick Installation Guide x 1

Optional Accessories

- DR-45 series : 45 Watts power supply
- DR-75 series : 75 Watts power supply
- DR-120 series : 120 Watts power supply
- PAA-121000, 12VDC/1000mA 12W Power Adapter, US plug
- PAE-121000, 12VDC/1000mA 12W Power Adapter, EU plug