v1.5 / Dec, 2011

Industrial Media Converter

> Industrial 4-port/8-port slim type serial to Ethernet device server

Features

- Operating Modes : Virtual Com, Serial Tunnel, TCP Server, TCP Client, UDP
- Multiple host devices :
 5 host devices: Virtual COM, TCP Server, TCP Client mode;
 4 IP ranges : UDP

IDS-141A/181A

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



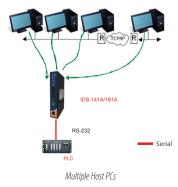
Introduction

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 aovid 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, $12 \sim 48$ VDC on terminal block and DC power jack to guarantee a non-stop operation. With wide operating temperature, $-40 \sim 70^{\circ}$ 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.

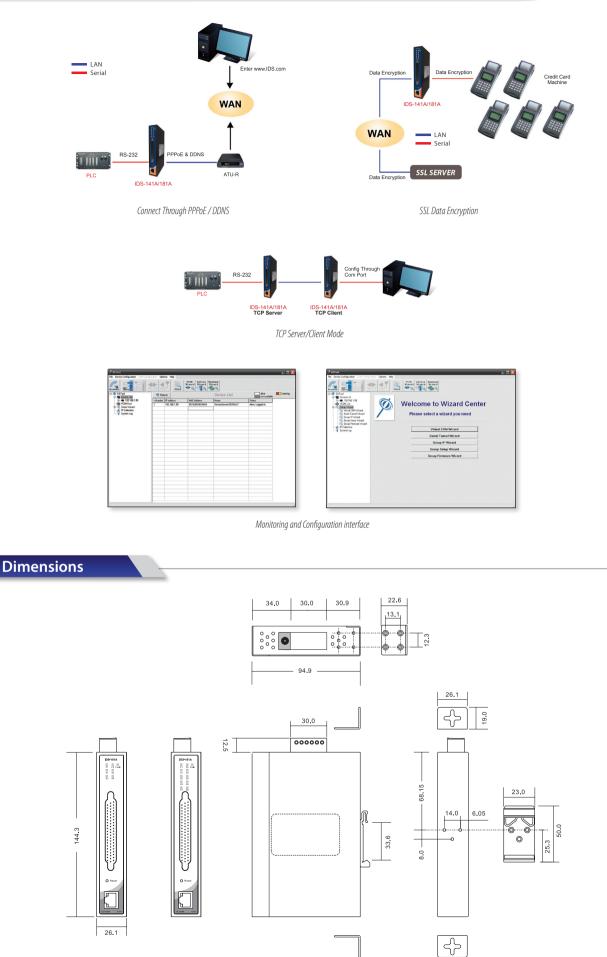
DS-Tool

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.





Designed for Rugged Excellence 3-35

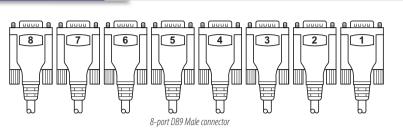


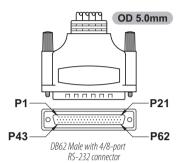
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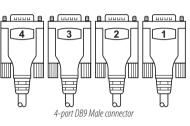
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P9









| 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 | | |

10

DB9 Male Pin Assignment

Ь

 7
 NTS

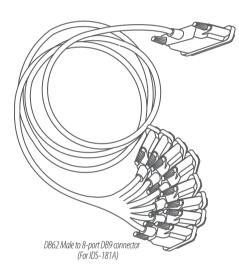
 8
 CTS

 9
 N.C.

 RS 232 mode act as D

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P6



DB62 Male to 4-port DB9 connector (For IDS-141A)

Specifications

| ORing Device Server Model | IDS-181A | IDS-141A | | |
|---|---|--|--|--|
| Physical Ports | | | | |
| 10/100Base-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 | 110 bps to 115.2 Kbps | | | |
| Data Bits | 5, 6, 7, 8 | | | |
| Parity | odd, even, none, mark, space | | | |
| Stop Bits | 1, 15, 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, H | HTTPS, SMTP, SSL, PPPoE, DDNS | | |
| LED Indicators | | | | |
| Power Indicator | PWR 1(2) / Ready : 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. Amber for port Link/Act at 100Mbps. | | |
| Serial TX / RX LEDs | Red : Serial port is receiving data Green : Serial port is | | | |
| Fault Contact | | | | |
| Relay | Relay output to carry capacity of 1A at 24VDC | Relay output to carry capacity of 1A at 24VDC | | |
| Power | | | | |
| Redundant Input Power | Triple DC inputs. 12~48VDC on 6-pin terminal block and | Triple 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 Characteristics | | | | |
| Enclosure | IP-30 | | | |
| Dimensions (W x D x H) | 26.1(W) x 94.9(D) x 144.3(H) mm | | | |
| Weight (g) | 358 g | 355 g | | |
| Environmental | | | | |
| 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 | | | |
| Regulatory Approvals | | | | |
| EMI | FCC Part 15, CISPR (EN55022) class A | | | |
| EMS | EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (E EN61000-4-11 | 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°C) | 73,914 | 76,637 | | |
| Warranty | 5 years | | | |

Ordering Information

IDS-1AB-A

| Code Definition | | Serial Port Number | 10/100Mbps Ethernet Port Number | | |
|---|-------------|--|---|--|--|
| Ontion -4:4 | | - 4: 4 ports - 8: 8 ports | - 1: 1 port | | |
| | Model Nam | 2 | Description | | |
| | IDS-181A-US | Industrial 8-port slim type secure serial to Eth adapter | Industrial 8-port slim type secure serial to Ethernet device server with 8xRS-232 and 1x10/100Base-T(X), DB62 connector, US adapter | | |
| Available Model | IDS-181A-EU | Industrial 8-port slim type secure serial to Eth adapter | 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 Eth adapter | ernet device server with 4xRS-232 and 1x10/100Base-T(X), DB62 connector, US | | |
| | IDS-141A-EU | Industrial 4-port slim type secure serial to Eth adapter | ernet device server with 4xRS-232 and 1x10/100Base-T(X), DB62 connector, EU | | |
| Packing List • IDS-181A/141A • DIN-Rail Kit • Wall-mount Kit • DB62 to DB9 Cable • ORing Tool CD • Quick Installation Guide | | Optional Accessories (Can be pur DR-45 series, 45W DIN-Rail power supply DR-75 series, 75W DIN-Rail power supply DR-120 series, 120W DIN-Rail power supp SDR-240-48, 240W DIN-Rail power supp SDR-480-48, 480W DIN-Rail power supp PAA-121000, 12VDC/1000mA 12W Powe | / / ply ly | | |

PAE-121000, 12VDC/1000mA 12W Power Adapter, 65 plug
 PAE-121000, 12VDC/1000mA 12W Power Adapter, EU plug