

IDS-141A/181A

► 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
- 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)



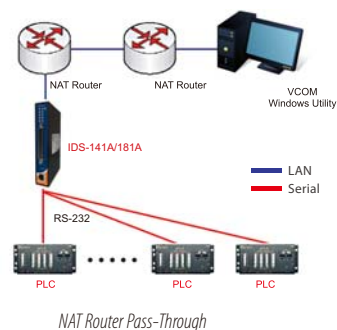
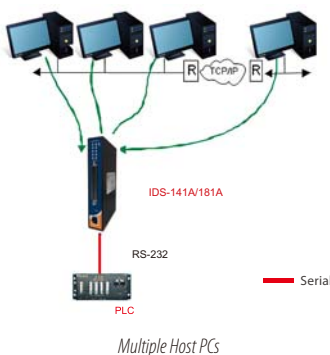
Introduction

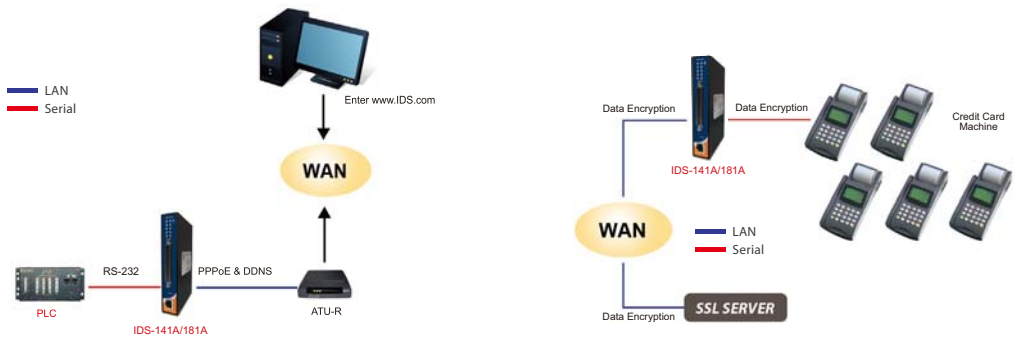
IDS-181A/141A is an innovative secure 8-port/4-port RS-232 to 1-port LAN serial to Ethernet device server featuring the standard features of device server, such like TCP/IP interface and versatile operation modes: Virtual Com, Serial Tunnel, TCP Server, TCP Client, UDP, Ethernet modem. In addition, the 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.

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.



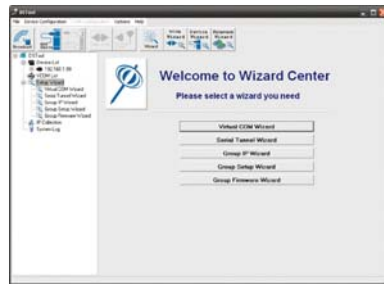
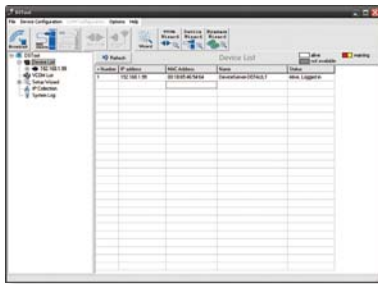


Connect Through PPPoE / DDNS

SSL Data Encryption

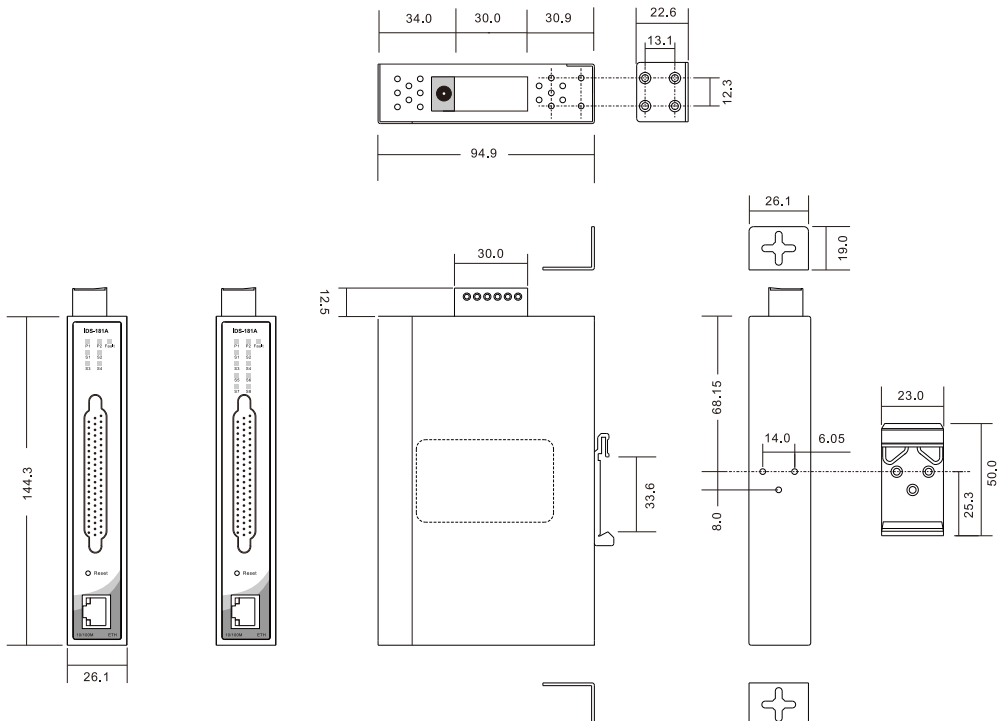


TCP Server/Client Mode



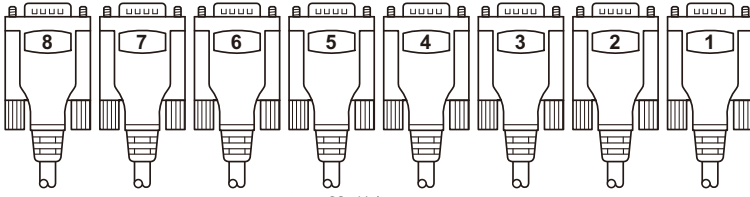
Monitoring and Configuration interface

Dimensions

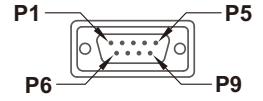


Unit=mm

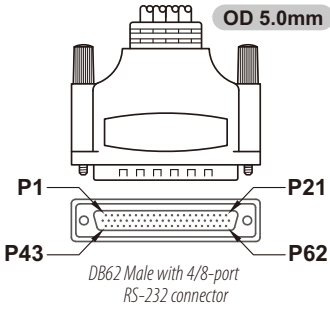
Pin Definitions



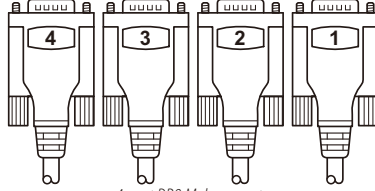
8-port DB9 Male connector



DB9 Male Pin Assignment

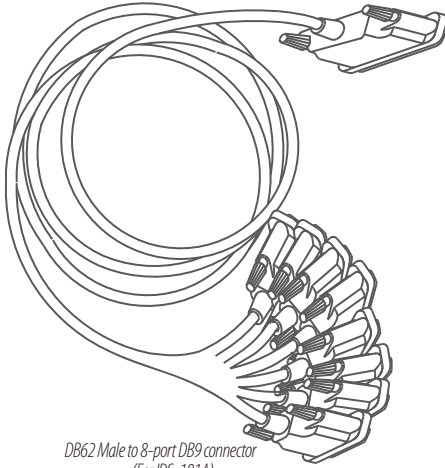


DB62 Male with 4/8-port RS-232 connector

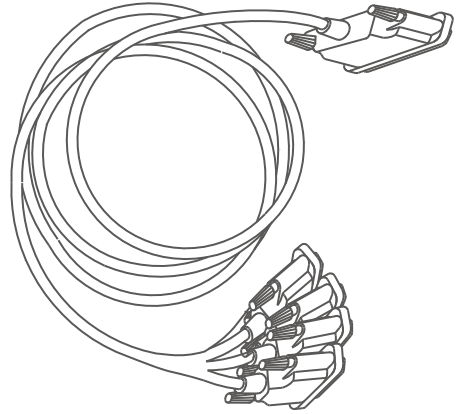


4-port DB9 Male connector

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)

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, 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, 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 transmitting data	
Fault Contact		
Relay	Relay output to carry capacity of 1A at 24VDC	
Power		
Redundant Input Power	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 (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-1 **A** **B** -A

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

	Model Name	Description
Available Model	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-181A/141A
- DIN-Rail Kit
- Wall-mount Kit
- DB62 to DB9 Cable
- 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

IDS-5011

► Industrial 1-port secure serial to Ethernet device server with 1xRS-232 and 1x10/100Base-T(X)

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
- NAT Pass-Through : the user can manage IDS-5011 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 Beeper
- 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)



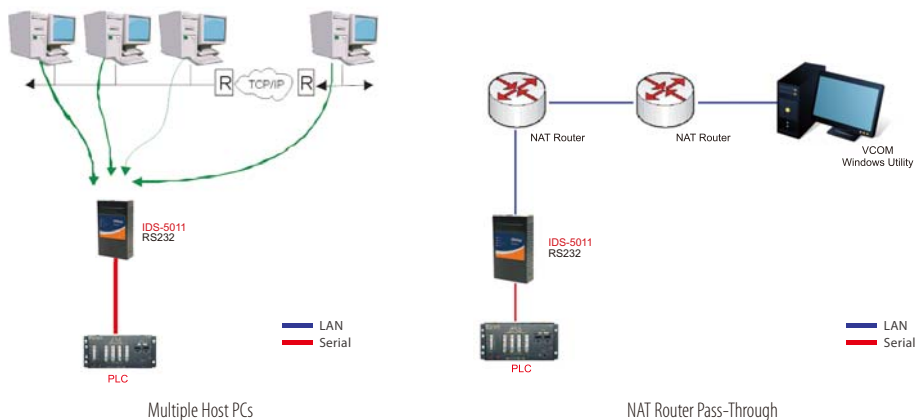
Introduction

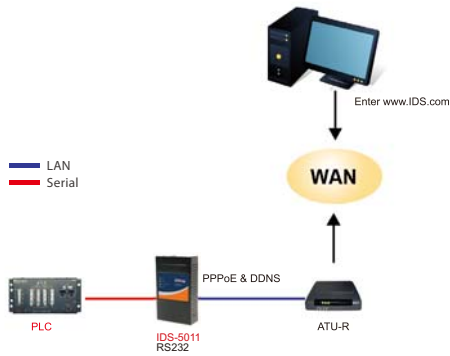
IDS-5011 is an innovative secure 1-port RS-232 to 1-port LAN serial to Ethernet device server featuring the standard features of device server, such like TCP/IP interface and versatile operation modes: Virtual Com, Serial Tunnel, TCP Server, TCP Client, and UDP. In addition, the Windows utility, DS-Tool, 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-5011 can simultaneously transfer data up to 5 redundant host PCs to avoid Ethernet connection breakdown or any host PC fails. Further, IDS-5011 features HTTPS, SSH, and SSL encryption to assure the security of critical data transmission.

IDS-5011 provides dual redundant power inputs, 12~48 VDC and DC power jack to guarantee a non-stop operation. With wide operating temperature, -10°~60°C , and rugged IP-30 housing design, IDS-5011 could operate in the harsh industrial environment. Therefore IDS-5011 is the best solution to the high demand of secure serial to Ethernet critical data communication.

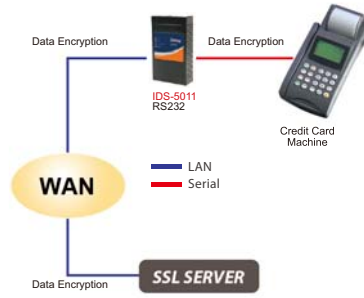
Practical Operation

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.





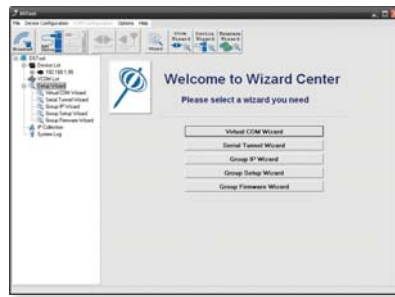
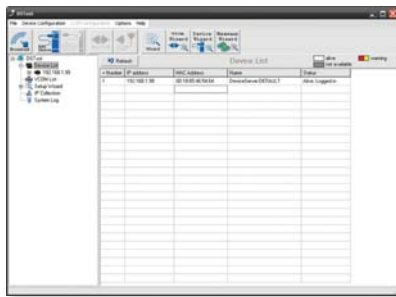
PPPoE and DDNS



SSL Encryption

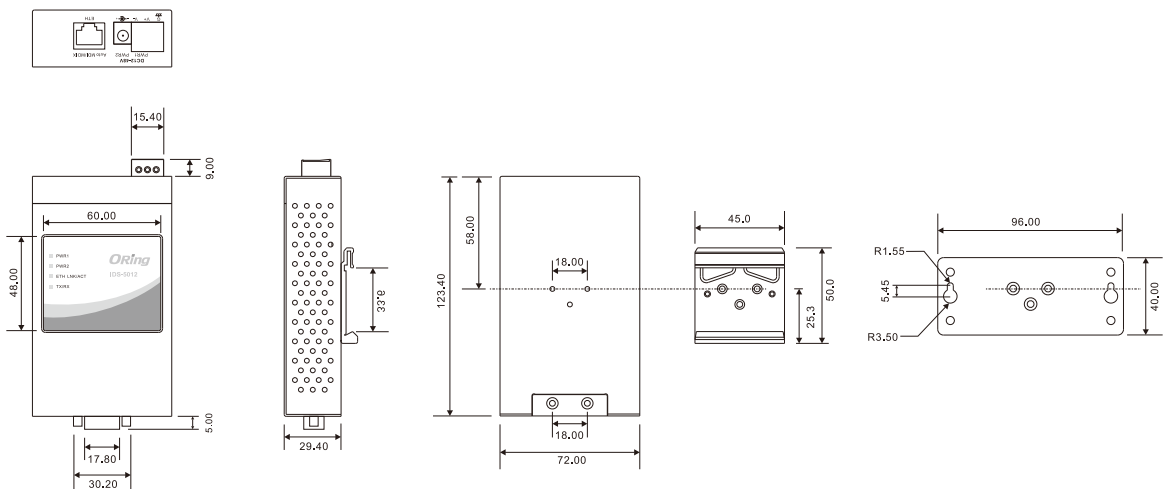


TCP Server/Client Mode

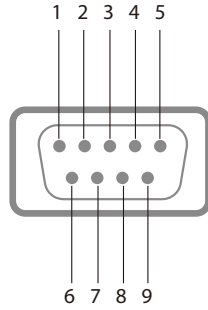


DS-Tool (Windows Utility): Monitoring and Configuration interface

Dimensions



Pin Assignment



DB9(male) Pin Assignment

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

Specifications

ORing Device Server Model	IDS-5011
Physical Ports	
10/100Base-T(X) Ports in RJ45 Auto MDI/MDIX	1
Serial Ports	
Connector	DB9 x 1
Operation Mode	RS-232
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
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, 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)x29.4(D)x123.4(H) mm (2.83x1.16x4.86 inch.)
Weight (g)	346 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-50 **A** **B**

Code Definition	Serial Port Number	Ethernet Port Number
Option	- 1: 1 port	- 1: 1 port

Available Model	Model Name	Description
	IDS-5011	Industrial 1-port secure serial to Ethernet device server with 1xRS-232 and 1x10/100Base-T(X)

Packing List

- IDS-5011
- 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

IDS-5011F

► Industrial 1-port secure serial to Ethernet device server with 1xRS-232/422/485 and 1x100Base-FX

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-5011F through NAT router
- Security: SSL data encryption; secured management by HTTPS and SSH
H: IP Access: IP White List
- Internet Communication: PPPoE
- Update DNS Hostname: DDNS
- 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 (32bit/64bit) /Windows 7(32bit/64bit)



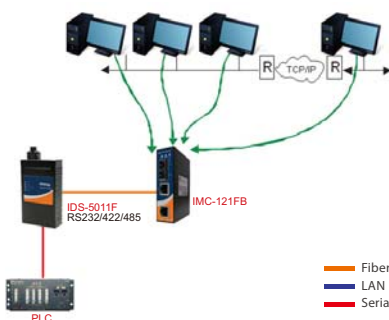
Introduction

IDS-5011F is an innovative secure 1-port RS-232/422/485 to 1-port optic fiber Ethernet port secure 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-5011F can simultaneously transfer data up to 5 redundant host PCs to avoid Ethernet connection breakdown or any host PC fails. Further, IDS-5011F features HTTPS, SSH, and SSL encryption to assure the security of critical data transmission.

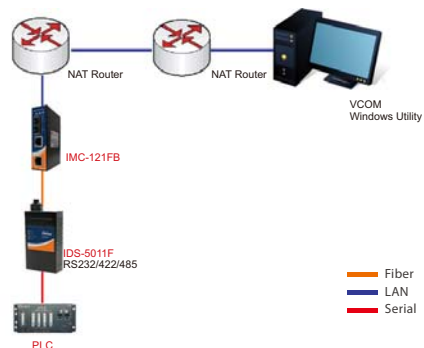
IDS-5011F provides dual redundant power inputs, 12~48 VDC, on DC power jack and terminal block to guarantee a non-stop operation. With wide operating temperature, -10~60°C, and rugged IP-30 housing design, IDS-5011F could operate in the harsh industrial environment. Therefore IDS-5011F is the best solution to the high demand of secure serial to Ethernet critical data communication.

Practical Operation

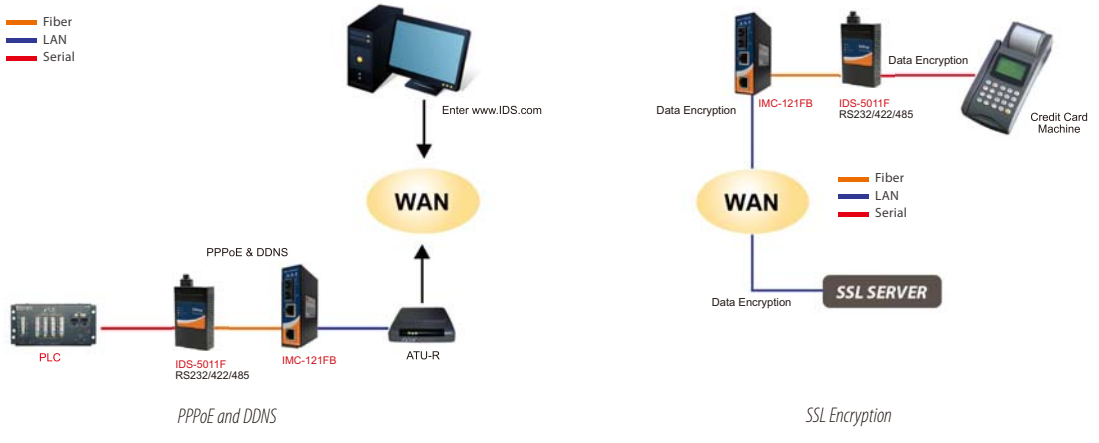
In practical operation of serial device servers, Windows utility (DS-Tool) is supported. This utility is very helpful for you to manage and monitor all of industrial device servers in the industrial network.



Multiple Host PCs



NAT Router Pass-Through

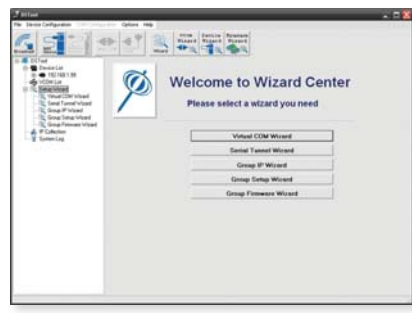
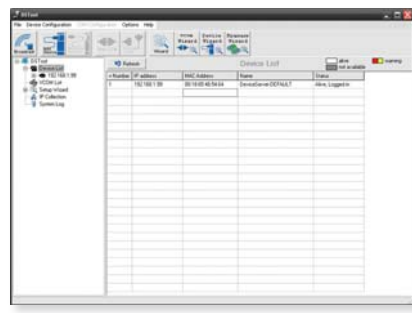


PPPoE and DDNS

SSL Encryption

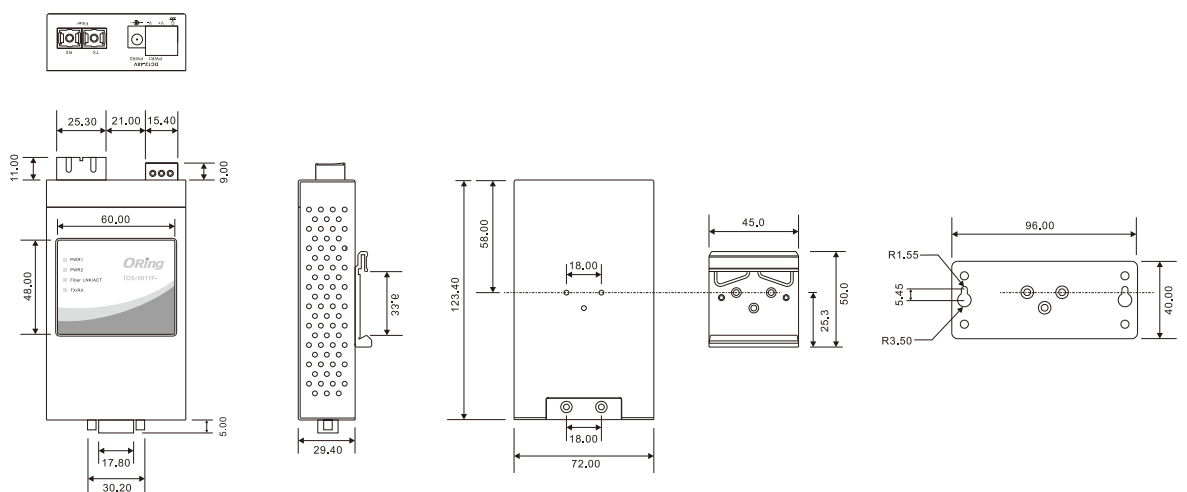


TCP Server/Client Mode



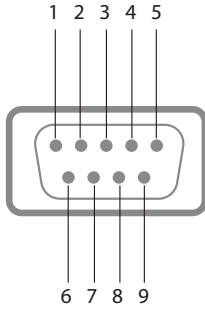
DS-Tool (Windows Utility): Monitoring and Configuration interface

Dimensions



Unit=mm

Pin Assignment



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-5011F-MM-SC	IDS-5011F-SS-SC
Fiber Ports		
Fiber Ports Number	1	1
Fiber Ports Standard	100Base - FX	100Base - FX
Fiber Mode	Multi-mode	Single-mode
Fiber Diameter (μm)	62.5/125 μm 50/125 μm	9/125 μm
Fiber Optical Connector	SC	SC
Typical Distance (km)	2 km	30 km
Wavelength (nm)	1310 nm	1310 km
Max. Output Optical Power (dBm)	-14 dBm	-8 dBm
Min. Output Optical Power (dBm)	-23.5 dBm	-15 km
Max. Input Optical Power (Saturation)	0 dBm	0 dBm
Min. Input Optical Power (Sensitivity)	-31 dBm	-34 dBm
Link Budget (dB)	7.5 dB	19 dB
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 / web interface	
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	

100Base-FX with SC Connector	Green for port Link/Act at 100Mbps
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)	325 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
MTBF (Hours) (MIL-HDBK-217F2, GB, GC, 25°C)	561,145
Warranty	5 years

Ordering Information

IDS-50 **A** **B** **C** - **DD**



Code Definition	Serial Port Number	Ethernet Port Number	Fiber Port Identification	Fiber Optical Mode
Option	- 1 : 1 port	- 1 : 1 port	- F : 100Base-FX - MM : 10/100Base-T(X)	- MM : Multi-mode Fiber - SS : Single-mode Fiber

Available Model	Model Name	Description
	IDS-5011F-MM-SC	Industrial 1-port secure serial to Ethernet device server with 1xRS-232/422/485 and 1x100Base-FX, multi-mode, 2km/1310nm, SC connector
	IDS-5011F-SS-SC	Industrial 1-port secure serial to Ethernet device server with 1xRS-232/422/485 and 1x100Base-FX, single-mode, 30km/1310nm, SC connector

Packing List

- IDS-5011F
- 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

IDS-5012

► 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)



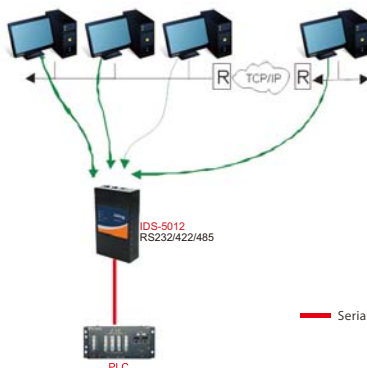
Introduction

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 avoid 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.

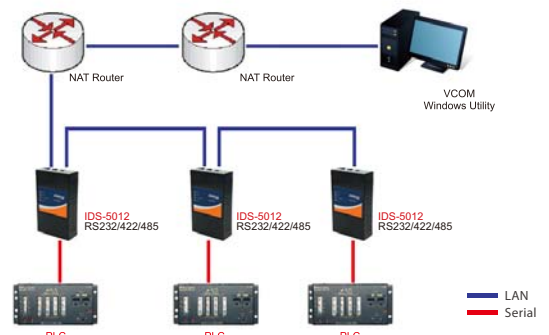
IDS-5012 supports RS-232/422/485 and provides dual redundant power inputs, 12~48 VDC, on DC power jack and terminal block to guarantee a non-stop operation. With wide operating temperature, -10~60°C, and rugged IP-30 housing design, IDS-5012 could operate in the harsh industrial environment. Therefore,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

Practical Operation

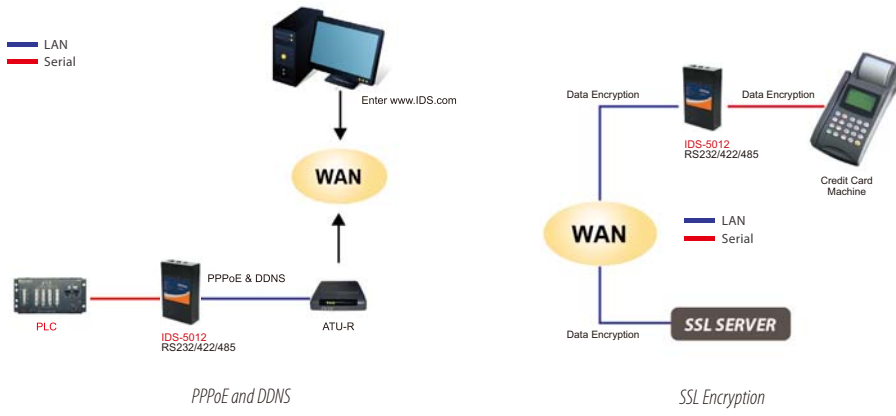
In practical operation of serial device servers, Windows utility (DS-Tool) is supported. This utility is very helpful for you to manage and monitor all of industrial device servers in the industrial network.



Multiple Host PCs

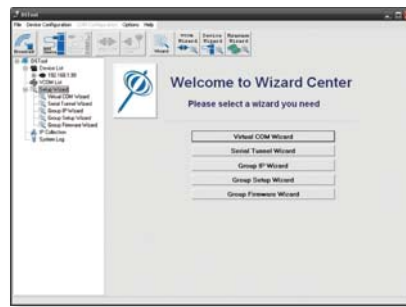
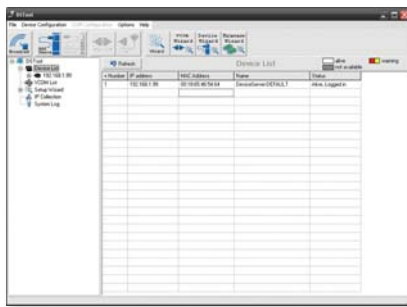
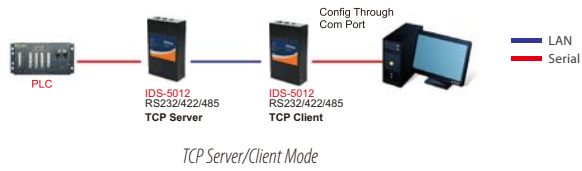


NAT Router Pass-Through and Ethernet Switch Mode



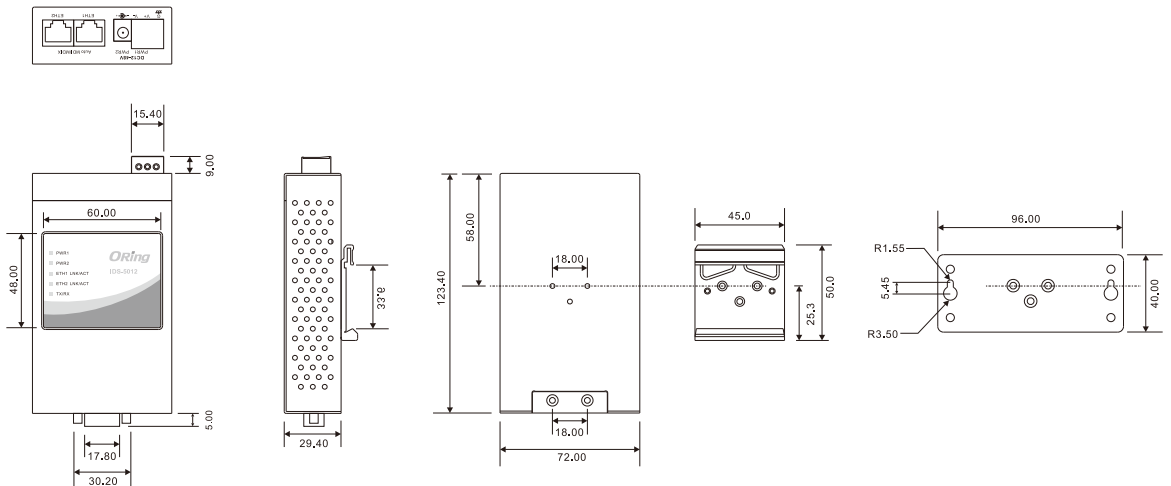
PPPoE and DDNS

SSL Encryption



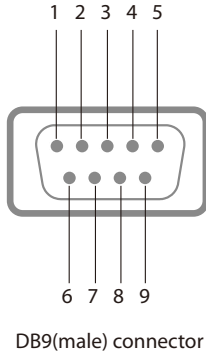
DS-Tool (Windows Utility) : Monitoring and Configuration interface

Dimensions



Unit=mm

Pin Assignment



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°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
MTBF (Hours) (MIL-HDBK-217F2, GB, GC, 25°C)	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

IDS-5042/5042+

► Industrial 4-port secure serial to Ethernet device server with 4xRS-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-5042/5042+ 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, Relay and Beeper
- Configurable by Web-based and Windows utility (DS-Tool)
- Various Windows O.S. supported : Windows NT/2000/ XP/ 2003/ VISTA(32/64bit)/Windows7(32/64bit)
- 1KV isolation for PoE P.D. port of IDS-5042+



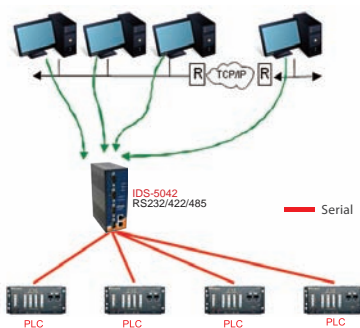
Introduction

IDS-5042 series is an innovative secure 4-port RS-232/422/485 to 2 ports LAN secure 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-5042 series can simultaneously transfer data up to 5 redundant host PCs to avoid Ethernet connection breakdown or any host PC fails. Further, IDS-5042 series features HTTPS, SSH, and SSL encryption to assure the security of critical data transmission.

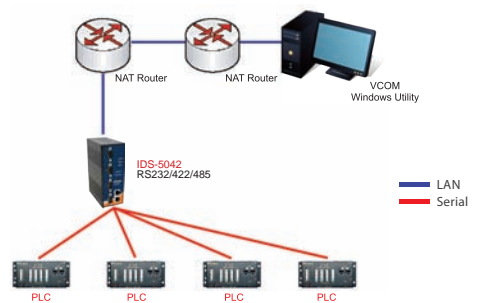
IDS-5042 series supports RS-232/422/485 and provides dual redundant power inputs 12~48 VDC on terminal block to guarantee a non-stop operation. Further, IDS-5042+ features PoE P.D. (Power Device) function with 1kv isolation on the PoE port. With wide operating temperature, -10~60°C, and rugged IP-30 housing design, IDS-5042 series could operate in the harsh industrial environment. Therefore, IDS-5042 series is the best solution to the high demand of secure serial to Ethernet critical data communication.

Practical Operation

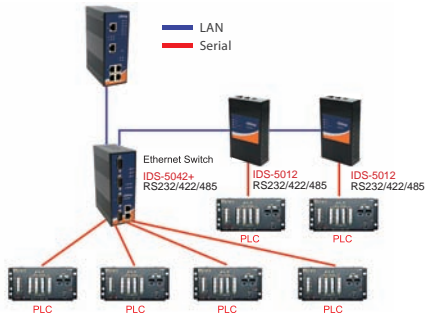
In practical operation of serial device servers, Windows utility (DS-Tool) is supported. This utility is very helpful for you to manage and monitor all of industrial device servers in the industrial network.



Multiple Host PCs



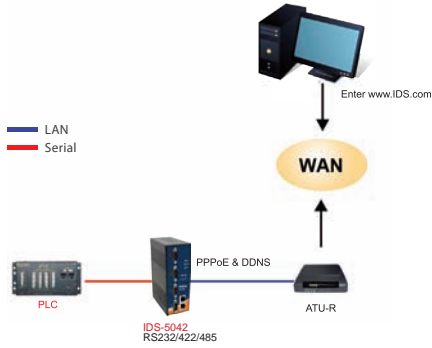
NAT Router Pass-Through



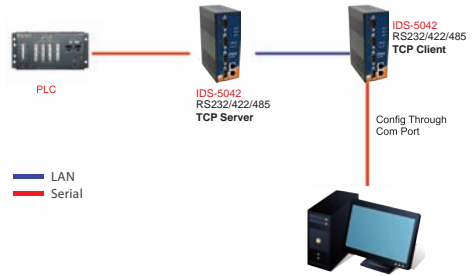
Daisy Chain Switch Mode



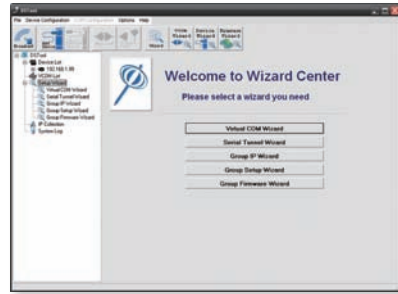
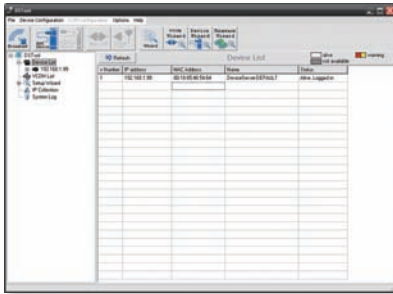
SSL Data Encryption



PPPoE and DDNS

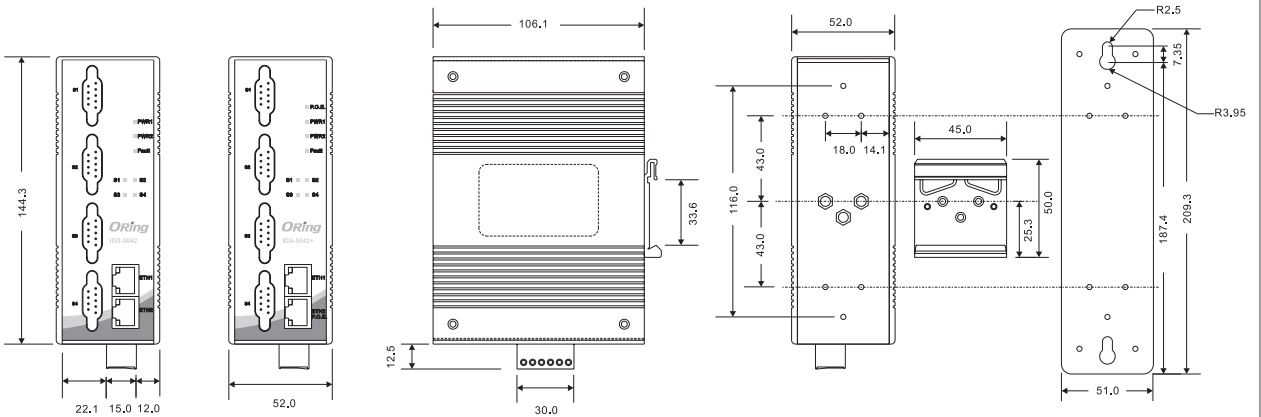


TCP Server/Client Mode



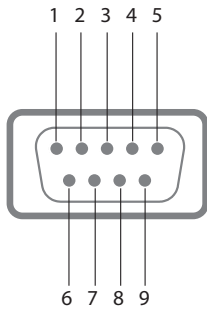
Monitoring and Configuration interface

Dimensions



Unit=mm

Pin Assignment



DB9(male) Pin Assignment

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-5042	IDS-5042+
Physical Ports		
10/100Base-T(X) Ports in RJ45 Auto MDI/MDIX	2	
PoE Feature	-	PoE P.D. Present at ETH2 Power Device (IEEE 802.3af): IEEE 802.3af compliant input interface Power consumption: 8Watts max. Over load and short circuit protection Isolation Voltage: 1000 VDC min. Isolation Resistance : 10 ⁸ ohms min
Serial Ports		
Connector	DB9(male) x 4	
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)(PoE) / 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	
Fault Indicator	Red : Indicate unexpected events occurred	

Fault Contact		
Relay	Relay output to carry capacity of 1A at 24VDC	
Power		
Redundant Input Power	Dual 12~48VDC on 6-pin terminal block	Triple DC inputs, 48VDC from PoE and Dual 12~48VDC on 6-pin terminal block
Power Consumption (Typ.)	5.5 Watts	5.5 Watts
Overload Current Protection	Present	
Reverse Polarity Protection	Present	
Physical Characteristics		
Enclosure	IP-30	
Dimensions (W x D x H)	52(W) x 106.1(D) x 144.3(H) mm (2.05x4.18x5.68 inch.)	
Weight (g)	678 g	682 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	
MTBF (Hours) (MIL-HDBK-217F2, GB, GC, 25°C)	569,972	
Warranty	5 years	

Ordering Information

IDS-50 **A** **B** **C**

Code Definition	Serial Port Number	Ethernet Port Number	PoE Identification
Option	- 4: 4 ports	- 2: 2 ports	-"+": PoE P.D. present at ETH2

Available Model	Model Name	Description
	IDS-5042	Industrial 4-port secure serial to Ethernet device server with 4xRS-232/422/485 and 2x10/100Base-T(X)
	IDS-5042+	Industrial 4-port secure serial to Ethernet device server with 4xRS-232/422/485 and 2x10/100Base-T(X), 1-port PoE P.D.

Packing List

- IDS-5042 / 5042+
- 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

IDS-5042-I+

► Industrial 4-port secure serial to Ethernet device server with 4xRS-422/485 (2KV isolation) and 2x10/100Base-T(X), 1-port PoE P.D.

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-5042-I+ 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, Relay and Beeper
- Configurable by Web-based and Windows utility (DS-Tool)
- Various Windows O.S. supported :
Windows NT/2000/ XP/ 2003/VISTA(32/64bit)/Windows7(32/64bit)
- 2KV isolation for RS422/485 serial ports
- 1KV isolation for PoE P.D. port



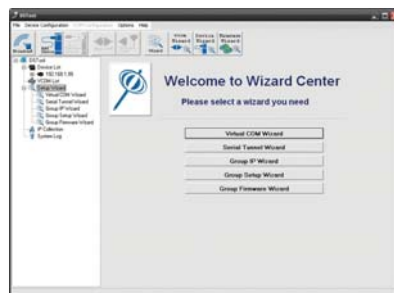
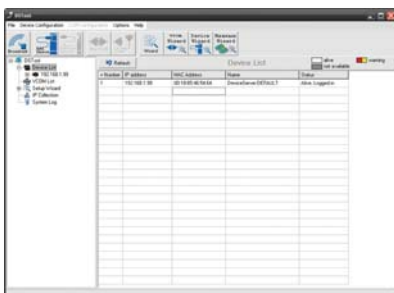
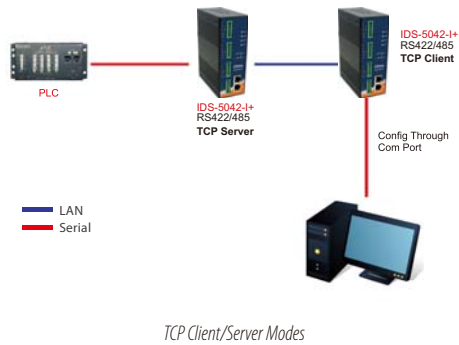
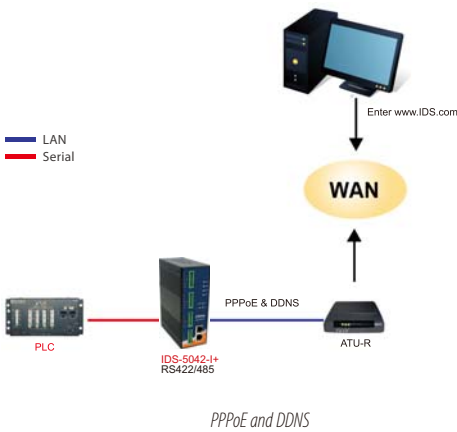
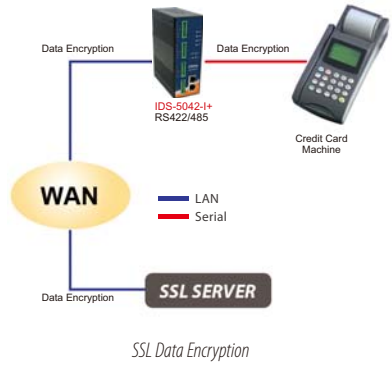
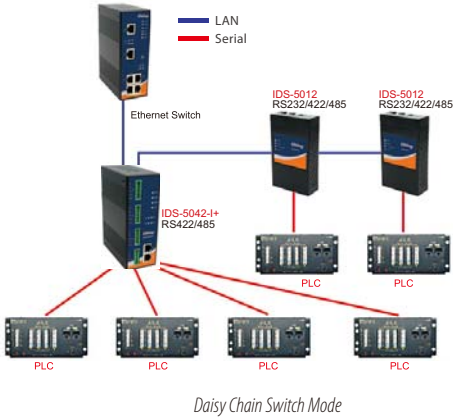
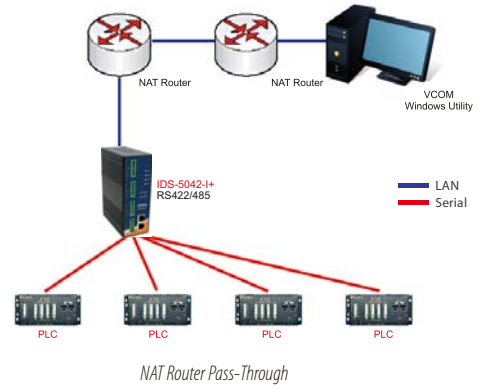
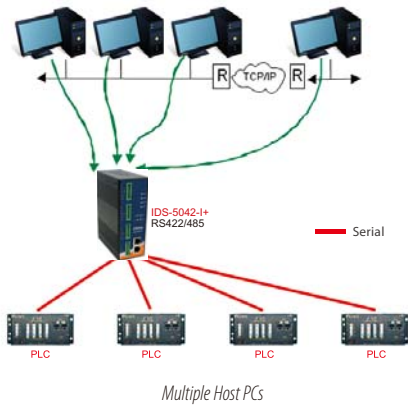
Introduction

IDS-5042-I+ is an innovative secure 4-port RS-422/485 to 2 ports LAN secure device server with isolation 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-5042-I+ can simultaneously transfer data up to 5 redundant host PCs to avoid Ethernet connection breakdown or any host PC fails. Further, IDS-5042-I+ features HTTPS, SSH, and SSL encryption to assure the security of critical data transmission.

IDS-5042-I+ supports RS-422/485 and provides dual redundant power inputs, 12~48 VDC, on terminal block to guarantee a non-stop operation. RS-422/485 serial ports are with 2KV isolation. Further, IDS-5042-I+ features PoE P.D. (Power Device) function, compliant with IEEE802.3af standard, with 1kv isolation on the PoE port. With wide operating temperature, -10~60°C, and rugged IP-30 housing design, IDS-5042-I+ could operate in the harsh industrial environment. Therefore, IDS-5042-I+ is the best solution to the high demand of secure serial to Ethernet critical data communication.

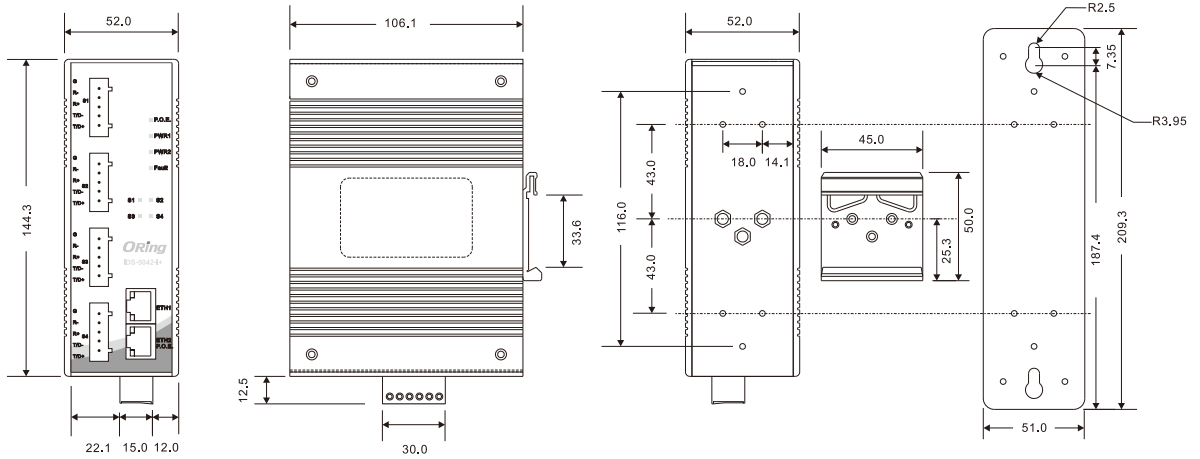
Practical Operation

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.



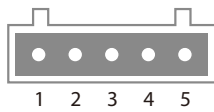
DS-Tool (Windows Utility) : Monitoring and Configuration interface

Dimensions



Unit=mm

Pin Assignment



5-Pin Terminal block connector

Pin #	RS-422	RS-485 (4 wire)	RS-485 (2 wire)
1	GND	GND	GND
2	RXD -	RXD -	-
3	RXD +	RXD +	-
4	TXD -	TXD -	DATA -
5	TXD +	TXD +	DATA +

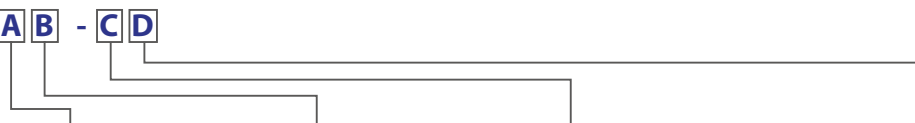
Specifications

ORing Device Server Model	IDS-5042-I+
Physical Ports	
10/100Base-T(X) Ports in RJ45 Auto MDI/MDIX	2
PoE P.D. port	PoE Present at ETH2 Power Device (IEEE 802.3af) : IEEE 802.3af compliant input interface Over load and short circuit protection Isolation Voltage : 1000 VDC min. Isolation Resistance : 10 ⁹ ohms min
Serial Ports	
Connector	5-pin terminal block x 4
Operation Mode	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-422	Tx+, Tx-, Rx+, Rx-, GND
RS-485 (4-wire)	Tx+, Tx-, Rx+, Rx-, GND
RS-485 (2-wire)	Data+, Data-, GND
Isolating	2KV
Flow Control	XON/XOFF
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)(PoE)/ 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
Fault Contact	
Relay	Relay output to carry capacity of 1A at 24VDC
Power	
Redundant Input Power	Triple DC Inputs,48VDC from PoE and Dual DC inputs. 12~48VDC on 6-pin terminal block
Power Consumption (Typ.)	5.5 watts
Overload Current Protection	Present
Reverse Polarity Protection	Present
Physical Characteristics	
Enclosure	IP-30
Dimensions (W x D x H)	52(W) x 106.1(D) x 144.3(H) mm (2.05x4.18x5.68 inch.)
Weight (g)	667 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-50 **A** **B** - **C** **D**



Code Definition	Serial Port Number	Ethernet Port Number	Serial Port Identification	PoE Identification
Option	- 4: 4 ports	- 2: 2 ports	- I: Serial port are isolated RS-422/485	- "+": PoE P.D. present at ETH2

Available Model	Model Name	Description
	IDS-5042-I+	Industrial 4-port secure serial to Ethernet device server with 4xRS-422/485 (2KV isolation) and 2x10/100Base-T(X), 1-port PoE P.D.

Packing List

- IDS-5042-I+
- 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