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iDS6P-S

Industrial 4 Port RS422/485 to 2 Port Ethernet Serial Device Server with PoE

Product Overview

iDS6P-S is an industrial device server with 4 isolated RS-422/485 serial ports and 2 redundant Ethernet local area network (LAN) ports for converting signals between serial and Ethernet networks. To ensure integrity and security of critical data, the iDS6P-S offers many powerful redundancy features. The most important feature of iDS6P-S is providing protection against failure of an Ethernet LAN port, by automatically switching to another LAN port within 10 ms and ensuring delivery via an alternative path.

iDS6P-S also supports an Ethernet switch mode (RS 485) allowing users to daisy chain serial servers reducing the usage of Ethernet switch ports. Another redundancy feature in the iDS6P-S is the simultaneous transfer of data of up to five host PC's. This feature ensures that critical data is sent via alternative Ethernet paths and to multiple host PC's ensuring that data is not compromised by the Ethernet connection or potential host PC failure.

With Network Address Translation (NAT) pass through functionality, users are able to manage the iDS6P-S inside or outside the NAT router, making it easy for different IP domain users to use the iDS6P-S. The secondary Ethernet port supports PoE (IEEE 802.3af) allowing the device to be powered via the Ethernet cable instead of a separate power supply.

Features and Benefits

Table 1. Features

FEATURE	
SUPPORTS	• NAT-pass through: User can manage iDS6P-S through NAT router • Dual redundant Ethernet ports • Redundant multiple host devices: 5 simultaneously in Virtual COM, TCP Server & Client • 4 IP Ranges: UDP
OPERATING MODES	•Virtual COM •TCP Server •TCP Client •UDP •Modbus RTU Slave •Modbus RTU Master •Modbus ASCII Slave •Modbus ASCII Master
DUAL INPUT POWER SUPPLIES	
IP-40 GALVANIZED STEEL HOUSING	
MULTIPLE ALARM NOTIFICATIONS METHODS (SYSLOG, SMTP MAIL & SMTP TRAP, FAULT EVENT NOTIFICATION AND FAULT LED / RELAY)	
CONFIGURABLE BY CENTRALIZED MANAGEMENT (IDS MANAGER) AND WEB UI	
SUPPORTS WINDOWS NT / 2000 / XP / 2003 /VISTA/WINDOWS 7(32/64BIT)/WINDOWS 10 (32/64BIT) OS	
DIN RAIL AND PANEL MOUNT	

PRODUCT SPECIFICATIONS

Table 2. Technical Specification

DESCRIPTION	SPECIFICATION
PORTS	
10/100 BASE-T(X) RJ45 AUTO MDI/MDIX	1
10/100BASE-T(X) RJ45 POE WITH ISOLATION	1
PLUGGABLE 5 PIN RS422/485	4
SERIAL PORT 1	
CONNECTOR	5 pin connector
OPERATION MODE	4 X Pluggable 5 Pin RS422/485, which can be configured using the iDS Manager or Web UI
SERIAL BAUD RATE	1200 bps to 921.6 Kbps
DATA BITS	7, 8
STOP BITS	1, 2 (1.5)
PARITY	None, Odd, Even, Mark, Space
FLOW CONTROL	XON/XOFF, RTS/CTS, DTR/DSR
RS-422	GND, RxD-, RxD+, TxD-, TxD+
RS-485	4 wire: GND, RxD-, RxD+, TxD-, TxD+-; 2 wire: GND, Data-, Data+
NETWORK PROTOCOL	
PROTOCOL	ICMP, IP, TCP, UDP, DNS, SNMP V1/V2c, SMTP

Features and Benefits

POWER	
INPUT POWER	Redundant Power Supplies: Dual Input 24VDC(Nom), 10-36VDC (Oper), or Single Input 48VDC(Nom), 36-75VDC (Oper) with Single 24VDC(Nom), 10-36VDC (Oper) Backup, or Single Input 100-240VDC(Nom), 88-300VDC(Oper) or 100-240VAC(Nom), 85-264VAC(Oper) 50/60Hz with Single 24VDC (Nom), 10-36VDC (Oper) Backup
POWER CONSUMPTION (TYP.)	5.5 W; 8 W max
OVERLOAD CURRENT PROTECTION	Power Device: IEEE 802.3af compliant input interface; Overload & short circuit protection, Isolation Voltage: 1000VDC min.; Isolation Resistance: 108 Ω min
REVERSE POLARITY PROTECTION	Present
PHYSICAL CHARACTERISTICS	
ENCLOSURE	IP-40 Galvanized Steel
DIMENSIONS (W X D X H)	114.3 (W) x 152.3 (D) x 203.2 (H) mm (4.50 x 6.00 x 8.00 inches) Panel mount 75.60 (W) x 160.1 (D) x 160.7 (H) mm (2.98 x 6.30 x 6.33 inches) DIN Rail mount
UNIT WEIGHT (G)	~2500 g

Table 3. Compliance Specification

TYPE	STANDARDS
ELECTROMAGNETIC EMISSIONS	FCC Part 15, Class A, CISPR Class A (EN55022)
ELECTROMAGNETIC IMMUNITY	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
SAFETY STANDARDS	EN60950-1
OPERATING ENVIRONMENT	-40°C to +85°C (-40° to 185°F) (no fans) EN 60068-2-21
STORAGE ENVIRONMENT	-40°C to +85°C (-40° to 185°F) EN 60068-2-14
OPERATING HUMIDITY	5% to 95% Non-condensing EN 60068-2-30
SHOCK	IEC60068-2-27
FREE FALL	IEC60068-2-32
VIBRATION	IEC60068-2-32
WARRANTY	5 years, (extendable option with additional terms)

Table 4. Standards and Management
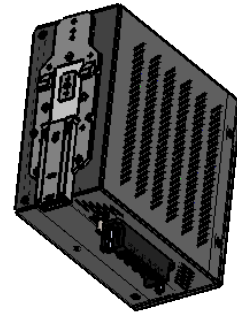
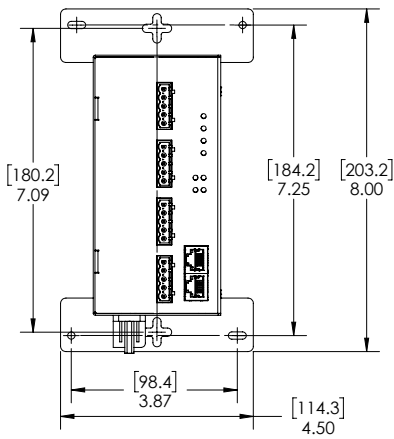| DESCRIPTION	SPECIFICATION		
IEEE STANDARDS	IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX IEEE 802.3x for Flow control IEEE 802.3af PoE (15.4W) / IEEE 802.3at PoE (25.5W)		
RFC COMPLIANCE	• RFC 768: UDP • RFC 791: IPv4 • RFC 792: ICMP	• RFC 793: TCP • RFC 1157: SNMPv1 • RFC 1166: IP Addresses	• RFC 1901,1902-1907 SNMPv2 • RFC 2571: SNMP Management RFC 5321 SMTP

Dimensions

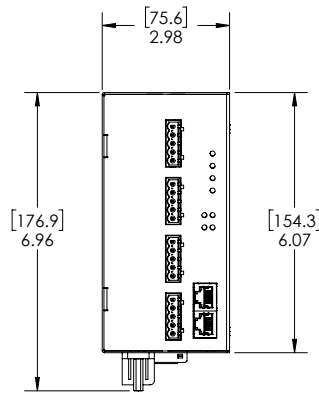All dimensions are shown in inches [millimeters].

PANEL MOUNT

DINRAIL MOUNT

[75.6]
2.98

[176.9]
6.96

[154.3]
6.07

[160.7]
6.33

[152.3]
6.00

[160.1]
6.30

[180.2]
7.09

[184.2]
7.25

[203.2]
8.00

[150.3]
5.92

[98.4]
3.87

[114.3]
4.50
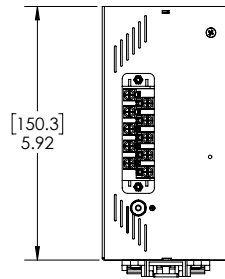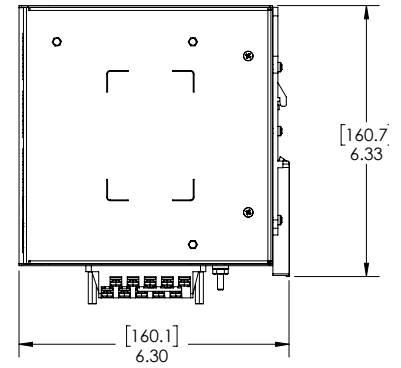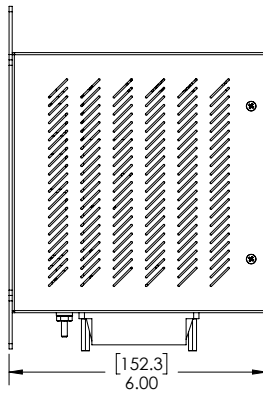
Ordering Information

BASE	POWER SUPPLY	MOUNT	ETHERNET PORT 1	ETHERNET PoE PORT 2	SERIAL PORT 3-6	MOD	DESCRIPTION
iDS6P-S	HV	D	1RJ45	1PRJ45	4PL05		
iDS6P-S							Core assembly and packaging
	LV						Dual Input 10-48VDC
	MV						Single Input 36-75VDC with Single 10-48VDC Backup
	HV						Single Input 110-370VDC or 90-264VAC with Single 10-48VDC Backup
		D					DIN Rail Mounting
		P					Panel Mounting
		N					No Mounting Hardware
			1RJ45				1 X 10/100Base-T(X) RJ45
				1PRJ45			1 X 10/100Base-T(X) RJ45 PoE with Isolation
					4PL05		4 X Pluggable 5 Pin RS422/485
						C1	Conformal Coating

iDS6P-S Sample Order Code

iDS6P-S-HV-D-1RJ45-1PRJ45-4PL05

Description: iDS6P - Slim 6 Port Device Server with PoE, (Power Supply) Single Input 110-370VDC or 90-264VAC with Single 10-48VDC Backup, (Mount) DIN Rail Mounting, (Ethernet Port 1) 1 X 10/100Base-T(X) RJ45, (Ethernet POE Port 2) 1 X 10/100Base-T(X) RJ45 PoE with Isolation, (Serial Port 3-6) 4 X Pluggable 5 Pin RS422/485.

The same unit, may be ordered with conformal coating by appending '-C1' to the order code, for example: iDS6P-S-HV-D-1RJ45-1PRJ45-4PL05-C1

Description: iDS6P - Slim 6 Port Device Server with PoE, (Power Supply) Single Input 110-370VDC or 90-264VAC with Single 10-48VDC Backup, (Mount) DIN Rail Mounting, (Ethernet Port 1) 1 X 10/100Base-T(X) RJ45, (Ethernet POE Port 2) 1 X 10/100Base-T(X) RJ45 PoE with Isolation, (Serial Port 3-6) 4 X Pluggable 5 Pin RS422/485. This system will be conformal coated.

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