



16 PORT INDUSTRIAL SECURED SERIAL DEVICE SERVER

DDSE SERIES



SYNOPSIS

- THE MULTI-PORT INDUSTRIAL SERIAL SERVER DDSE I NI S 16 A1 SERIES IS A GATEWAY BETWEEN ETHERNET (TCP/IP) AND RS232/422/485 COMMUNICATIONS.
- IT ALLOWS ALMOST ANY SERIAL DEVICE TO A LAN NETWORK BY ENCAPSULATING SERIAL DATA AND TRANSPORTING IT OVER ETHERNET.
- DDSE I NI S 16 A1 OFFERS FULL-DUPLEX, BI-DIRECTIONAL DATA TRANSMISSION TRANSPARENT BETWEEN SERIAL PORT AND ETHERNET NETWORK.
- DDSE I NI S 16 A1 SERIES SUPPORTS OPENVPN AND IPSEC, WHICH ALLOWS YOU TO SECURELY COMMUNICATE THROUGH THE INTERNET.
- FLEXIBLE CONFIGURATION OPTIONS ENABLE THIS UNIT TO BE SETUP BY TELNET, WEB BROWSER, SERIAL CONSOLE OR WINDOWS UTILITIES.
- PACKED IN A RUGGED METAL HOUSING WITH 19-INCH RACK MOUNT AND 100~240VAC WIDE POWER INPUT RANGE.
- DDSE I NI S 16 A1 IS IDEAL FOR ALMOST ANY INDUSTRIAL AND MANUFACTURING AUTOMATION.

FEATURES

- 16-PORT ETHERNET SECURED SERIAL SERVER
 - EACH PORT CAN BE INDEPENDENTLY CONFIGURED.
 - SOFTWARE SELECTABLE RS-232/422/485 FOR EACH PORT OR ISOLATED RS485/422 PORTS.
 - DUAL 10/100MBPS ETHERNET FOR NETWORKING REDUNDANCY
 - SUPPORT DUAL SUBNET OR RSTP REDUNDANCY
 - SUPPORT TCP SERVER/CLIENT UDP AND VIRTUAL COM MULTI-LINK MODE
 - CONFIGURATION VIA SERIAL CONSOLE, TELNET, WEB SERVER OR WINDOWS-BASED UTILITIES
 - SSH V1 AND V2, SSL V3.0/TLS V1.2, SSL V2.0, SSL SERVER AND SSL CLIENT MODE CAPABILITY, SSL PEER AUTHENTICATION
 - ALL SERIAL PORTS CAN USE 502 AS TCP SYSTEM PORT FOR MODBUSTCP
 - ALARM RELAY OUTPUT FOR LAN1 / LAN2 OUTAGE
 - LCM INDICATION WITH 4 KEYPAD SETTING
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- THERE ARE 2 ETHERNET PORTS AND THEY OPERATES AS

Dual Subnet Mode

Subnet is a logically visible subdivision of an IP network. The LAN 1 and LAN2 can be assigned to different subnets. This feature gives the user flexible network manageability. Separate IP's. Different Class

RSTP

The integrated Rapid Spanning Tree Protocol (RSTP), allows you to add a backup Ethernet link in the event the primary one fails.

TECHNICAL SPECIFICATIONS

ETHERNET

Compliance	IEEE802.3 and IEEE802.3u
Ports	2-port
Transmission Rate	10/100Mbps Auto-detection, Auto MDI/MDI-X
Connector	RJ45
Isolation	1.5KV Magnetic Isolation
MAC chips	2 Separate MAC chips
Mode	Dual Sub net mode or RSTP Redundancy

LINK MODE

TCP Server	Up to 4 connections or Virtual Com mode
TCP Client	Up to 2 destinations
UDP	Up to 4 destinations
Supports Serial Mode	

SERIAL

Interface	RS232/422/485 for non-isolated RS485/422 for Isolated versions Software selectable
Ports	16-port
Baud Rate	1200bps to 921Kbps
Parity	None, Odd, Even, Mark, Space
Data Bits	5, 6, 7, 8
Stop Bits	1, 2
Flow Control	None, Software: Xon/Xoff, Hardware: RTS/CTS
Connector	RJ45
Isolation	2.5 KV Galvanic: In RS485/422 Isolated model only
RS-232	TxD, RxD, RTS, CTS, DTR, DSR, GND
RS-422	TX+, Tx-, Rx+, Rx-, GND
RS-485-4w	Tx+, Tx-, Rx+, Rx-, GND
RS 485-2w	Data+, Data-, GND
MTBF	Non-Isolated AC: 13.95 years Isolated DC: 13.38 years Isolated AC: 13.38 years

SOFTWARE

Configuration	Web Page / Telnet / Serial console / Windows utility / LCD
Virtual Com	Windows & Linux port redirection software
Protocol	TCP/IP, UDP, ARP, ICMP, DHCP client, NTP, DNS, SNMP v1, v2, v3 SMTP, HTTP, HTTPS, SMP/TLS, Telnet, RFC2217, RSTP, IPv4, VPN-OpenVPN, IPsec, PPTP

SECURITY

IPSec VPN	NAT Traversal, ESP authentication protocol
Encryption	Encryption: AES (256/192/128), 3DES, DES
Hashing Algorithms	MD5, SHA-1
	IP Address filtering

OTHERS

Console Port	RS232, DB9 : 1 no's
Alerts	SMTP, SNMPv1, v2, v3, Relay
Diagnostics	Link Status, Syslog, Data Log
LED's	Power, Ready, TX, RX, LAN1, LAN2
LCD with Keypad, Reset Button	

DRIVER SUPPORT

Driver Support	Windows 2008, 2007, 98/200/NT/XP/2003/Vista, Windows server 2012 R2 & Windows Serer 2016 OS driver Support
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POWER

Input	AC 100 to 260V 24V to 48V DC options are also available
Connectors	3 Pin Terminal block for DC & AC Inlet of AC Inputs
Consumption	Max. 21W
Reverse Polarity Protection	Yes. For DC Version

MECHANICAL

Dimension (W x H x D) mm	436 x 44 x 200mm
Mounting	Standard 19-inch Rackmount 1U metal housing Desktop
Ingress Protection	IP30
Weight	3.2 Kg

ENVIRONMENT

Operating Temp	-20°C to 70°C
Storage Temp	-40° to 85°C
Relative Humidity	5 to 95% Rh non-condensing
Heat Load	34.12 BTU/hr

APPROVALS & STANDARDS TESTED FOR

IEC 61000-4-2	Electrostatic Discharge: ±8kV (contact), ±15kV (air)
IEC 61000-4-3	RF Immunity :10V/m (80 to 1000MHz)
IEC 61000-4-4	Electrical Fast Transient AC Power Port: ±2.0KV Data Port: ±2.0KV
IEC 61000-4-5	Surge Immunity AC Power Port: Line-to Line: ±1.0KV AC Power Port: Line-to Earth±2.0KV Signal Port: Line-to Earth±2.0KV
IEC 61000-4-6	Conducted RF immunity: 10 V rms Continuous Conducted Disturbance
IEC 61000-4-8	PFMF Enclosure :10 A/m
IEC 61000-4-11	DIP Power Port
IEC 60068-2-27	Shock
IEC 60068-2-32	Drop (Freefall)
IEC 60068-2-64I	Drop (Freefall) /Vibration
IEC 60068-2-64	Vibration

OTHERS

EN 61000-3-2	Harmonic Current Emissions
EN 61000-3-3	Voltage Fluctuations and Flicker
EN60950-1:2006/ IEC60950-1 LVD	Safety
FCC Part 15, Subpart B, Class B	EMC

ORDERING CODE

DDSE I/NI S 16 U/V XX A1

DDSE	Databridge Dynamic Base model for Serial to Ethernet
I/NI	I : Isolated NI: Non-Isolated
S	Secured Gateway
16	16 Port * RS232/422/485
U/V	U for RS232/RS485/RS422 (Only in NI-Non-Isolated Models) V for RS485/422 (Only in I-Isolated Model)
XX	AC for 230V AC Input DC for 24 to 48 DC Input
A1	Fixed

SAMPLE MODEL CODES

DDSE I S 16 V AC A1	2 LAN, 16-port Isolated RS485/422 (RJ45) Secured Serial server, 230V AC operated
DDSE I S 16 V DC A1	2 LAN, 16-port Isolated RS485/422 (RJ45) Secured Serial server, 48V DC operated
DDSE NI S 16 U AC A1	2 LAN, 16-port non-isolated RS485/422 (RJ45) Secured Serial server, 230V AC operated
DDSE NI S 16 U DC A1	2 LAN, 16-port non-isolated RS485/422 (RJ45) Secured Serial server, 48V DC operated