



8 AND 16 PORT RACK MOUNT INDUSTRIAL SECURE MODBUS DATA CONCENTRATOR

DDSE SERIES

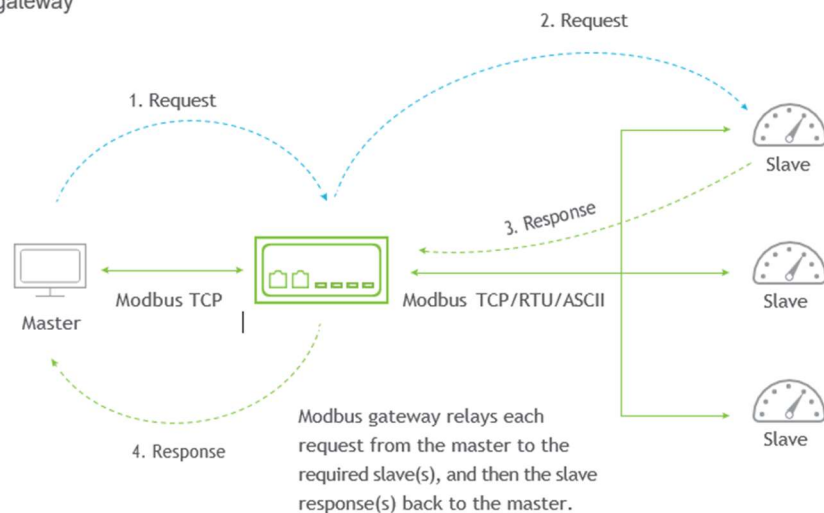


- 2 Fast Ethernet ports, Dual Subnet or RSTP redundancy
- 8/16 software selectable RS 232/485/422 RJ45 serial ports, up to 921 kbps
- 24-48 VDC Power input or 100-240 VAC Power input
- Bi-Directional Modbus TCP/RTU/ASCII conversion from Serial to Ethernet and vice-versa, Virtual COM support, Advanced Modbus options available.
- Support SNMPv1/v2c/v3, Embedded security with IPsec or Open VPN
- Configuration via Web browser/ Serial Console/ Telnet Console
- Windows Utility/ LCM Matrix
- Integrated RSTP redundancy
- Automatic mapping of all slave's data into memory, up to 64 connections.
- DDSE Data Concentrator series embeds OpenVPN and IPsec VPN that allows you to tunnel your data securely through the internet and prevent unauthorized control of your Serial Devices by malicious people. The integrated Rapid Spanning Tree Protocol (RSTP), allows you to add a backup Ethernet link in the event the primary one fails.
- Modbus data Concentrator supports the standard Modbus protocol. It is bi-directional Ethernet and Serial ends can select to be either Master or Slave and supports Modbus ID routing.

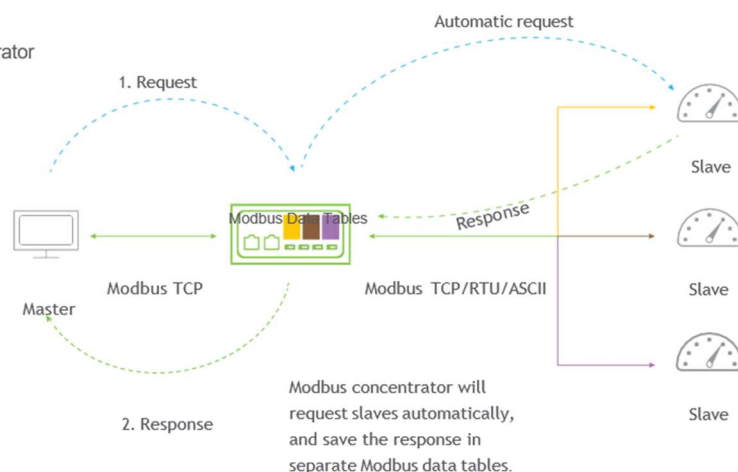
MODBUS DATA CONCENTRATOR

- The Modbus Data Concentrator performs pre-defined Modbus commands to read/write data from the slave devices via serial ports. It mirrors slave device data to its own memory. Therefore, requesting masters can receive response in a shorter period, achieving better overall efficiency.

Regular Modbus gateway



Modbus Concentrator



TECHNICAL SPECIFICATIONS

NETWORK INTERFACE

Standards	IEEE 802.3 10BaseT, IEEE 802.3u 100BaseT(X)
LAN Mode	Dual Subnets or RSTP Network Redundancy
Connector ports	2x 10/100BASE-T(X) RJ-45

SERIAL INTERFACE

Connector	RJ45 RS-232/422/485 software selectable or RJ45 Isolated RS-422/485 software selectable
Ports	8 or 16
Baud Rate	1,200 to 921,600 bps software selectable
Data Bits	5, 6, 7, 8 software selectable
Stop Bits	1, 2 software selectable
Parity	None, Odd, Even, Space, Mark
Flow Control	None, Xon/Xoff, RTS/CTS (RS-232 only)
Isolation	2.5 kV Isolated version only

POWER SUPPLY

Input Voltage	24 to- 48VDC or 100 to240 V AC
Power Consumption	Approximately 21 W (Max)
Connector	DC version: 5.08mm 3-pin Lockable Terminal Block AC version: IEC 60320-1 C14 AC Power Inlet
Power Redundancy	No
Reverse Polarity Protection	Yes (DC version only)
Relay Output	Yes (1)

PHYSICAL CHARACTERISTICS

Housing	IP30 SPCC housing
Dimension (W x H x D)	436 mm x 43.5 mm x 200 mm
Weight	3,000g (8-port version), 3,200 g (16-port version)
Installation	19" Rack-Mount (Kit included)
Reset Button	Yes

ENVIRONMENT

Working Temperature	-20°C to +70°C
Storage Temperature	-40°C to +85°C
Relative Humidity	Up to 95% RH (Non-Condensing)

SOFTWARE

Protocols

IPv4, ICMP, TCP, UDP, DHCP Client, SNMPv1 ,v2c,v3, HTTP, HTTPS, SMP/TLS, Telnet, RFC2217, RSTP, Security through OpenVPN and IPsec (host-to-host or host-to-side) with up to 37.9Mbps VPN throughput, and PPTP

Configuration

Web UI, Telnet, Serial Console, LCM Display

Virtual COM

Windows/Linux redirection software

MODBUS FEATURES

Supported Modes	Ethernet: Modbus TCP Server/Client (or VCOM); Serial: Modbus RTU/ASCII (Master/Slave)
Maximum number of clients/slaves	Modbus TCP: Maximum 16 clients; Maximum 32 slave connections

APPROVALS AND STANDARD TESTED FOR

Safety	EN60950-1:2006; EN62368-1
EMC	FCC Part 15, Subpart B, Class A EN55032, Class B, EN 61000-3-2, EN 61000-3-3, EN 55024

TEST		ITEM	VALUE	LEVEL
IEC 61000-4-2	ESD	Contact Discharge	±8kV (For AC Version)	4
		Air Discharge Contact	±15kV (For AC Version)	4
		Discharge	±6kV (For DC Version)	3
		Air Discharge	±8kV (For DC Version)	3
IEC 61000-4-3	RS	Radiated (enclosure)	10 V/m	3
IEC 61000-4-4	EFT	AC Power Port	±4.0KV	4
		DC Power Port	±4.0KV	4
		Signal Port	±2.0KV	3
IEC 61000-4-5	Surge	AC Power Port	Line-to Line±2.0KV	4
		AC Power Port	Line-to Earth±4.0KV	4
		DC Power Port	Line-to Line±1.0KV	3
		DC Power Port	Line-to Earth±2.0KV	3
		Signal Port	Line-to Earth±2.0KV	4
IEC 61000-4-6	CS	AC Power Port	10 V rms	3
		DC Power Port	10 V rms	3
		Signal Port	10 V rms	3
IEC 61000-4-8	PFMF	Enclosure	1 A/m	3
IEC 61000-4-11	DIP	AC Power Port	30% Reduction (Voltage Dips), 25/30 Cycle >95% Reduction (Voltage Dips), 0.5 period 100% Reduction (Voltage Interruption): 250/300 Cycle	
Shock, Drop (Freefall), Vibration	Yes			
RoHS II	Yes			
MTBF	DC VERSION: 22.74 years; AC VERSION: 13.95 years; 8 PORT ISOLATED DC VERSION: 19.00 years; AC VERSION: 19.03 years 16 PORT ISOLATED DC VERSION: 13.38 years; AC VERSION: 13.38 years			

ORDERING INFORMATION

DDSE I/NI MS DC 8/16 U/V XX A1

DDSE	Databridge Dynamic Base model for Serial to Ethernet Converter
I/NI	I : Isolated NI : Non-Isolated
MS	Secured Modbus Serial & Modbus TCP Function
DC	Data Concentrator
8/16	8 Port * RS232/422/485 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

DATA BRIDGE
D Y N A M I C