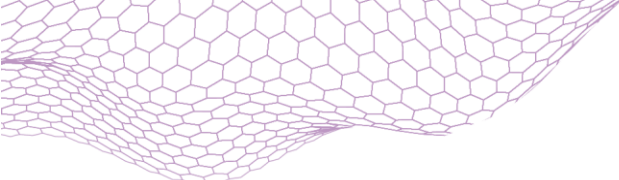




8 PORT RS232/485 TO 2 ETHERNET PORTS MODBUS INDUSTRIAL GATEWAY DIN MOUNT

DDSE DIN SERIES





SYNOPSIS

- THE DDSE I MS 8 ME IS A DIN-RAIL INDUSTRIAL MODBUS GATEWAY WITH 8*SERIAL PORTS.
- IT SUPPORTS SERIAL PORT CONVERSION TO UDP, TCP, MODBUS, HTTPD, WEBSOCKET, MQTT AND OTHER PROTOCOLS, AND CAN REALIZE COMMUNICATION BETWEEN MODBUS RTU / ASCII AND MODBUS TCP PROTOCOLS.
- THE DEVICE SUPPORTS WEB CONFIGURATION OF VARIOUS NETWORK MANAGEMENT FUNCTIONS
- IT SUPPORTS MODBUS RTU MASTER/SLAVE, MODBUS ASCII MASTER/SLAVE, UDP, TCP CLIENT/SERVER, UDP MULTICAST, REALCOM PAIR CONNECTION MASTER/SLAVE, HTTPD CLIENT, WEBSOCKET CLIENT, MQTT AND OTHER CONVERSION MODES TO REALIZE SERIAL PORT TO ETHERNET NETWORK OR MODBUS TCP PROTOCOL
- THE MODBUS GATEWAY SUPPORTS ONE-CLICK RESTART OR FACTORY RESET
- DDSE I MS 8 ME SERIES CAN BE WIDELY USED IN INDUSTRIAL AUTOMATION, INTEGRATED ENERGY, SMART CITIES, SMART TRANSPORTATION, SMART MINES, SMART FACTORIES AND OTHER FIELDS.

FEATURES

- SUPPORT CONVERSION BETWEEN MODBUS RTU/ASCII AND MODBUS TCP PROTOCOLS AND SUPPORT MODBUS RTU/ASCII OVER TCP TRANSPARENT TRANSMISSION.
- SUPPORT MODBUS SLAVE READAHEAD, SINGLE PORT AUTOMATICALLY LEARNS UP TO 256 RTU OR 128 ASCII INSTRUCTIONS, AND PRE-READS DATA TO ACHIEVE FAST RESPONSE.
- SUPPORT MODBUS ADDRESS MAPPING, MAPPING A SINGLE READ/WRITE INSTRUCTION WITH READ/WRITE INSTRUCTIONS OF MULTIPLE ADDRESSES, REALIZING BATCH READ/WRITE WITH A SINGLE INSTRUCTION.
- SUPPORT SERIAL PORT FORWARDING, REALIZES TRANSPARENT TRANSMISSION OF DATA BETWEEN THE SERIAL PORT AND OTHER SERIAL PORTS, AND PROVIDES ONE-WAY FORWARDING/RECEIVING AND TWO-WAY FORWARDING DIRECTION CONTROL.
- SUPPORT JSON FUNCTION, WHICH CAN CONVERT THE COLLECTED MODBUS SLAVE DEVICE DATA INTO JSON FORMAT AND SEND IT TO THE SERVER.

ADDITIONAL FEATURES & BENEFITS

- High-performance CPU architecture with Cortex-A7 core, operating at up to 800 MHz for powerful data processing.
- Dual Ethernet ports configurable as two independent network segments or cascade ports for flexible networking.
- Supports UDP and UDP Multicast modes, enabling point-to-point, point-to-multipoint, and multipoint-to-multipoint communication.
- Supports TCP Client/Server modes for reliable session connections. TCP Client supports up to 16 simultaneous sessions, TCP Server supports up to 32 sessions, and RFC2217 protocol is supported for dynamic modification of serial port parameters such as baud rate.
- Supports Pair Connection Master/Slave mode for peer-to-peer device communication
- Supports RealCOM mode, mapping network ports to local COM ports for seamless host system integration

- Supports HTTPD Client mode and performs GET/POST operations with an HTTPD server.
- Supports WebSocket Client mode for full-duplex bidirectional communication with WebSocket servers.
- Supports multiple packet segmentation mechanisms, converting serial data into Ethernet packets based on data length or time interval to meet various real-time transmission requirements.
- Supports frame header and frame tail mode, allowing the serial port to filter data based on defined frame start and end bytes.
- Supports registration packets and heartbeat packets for connection authentication and connection status monitoring.
- Supports Modbus virtual ID mapping, allowing the real Modbus slave ID to be mapped to a virtual ID to prevent ID conflicts.
- Supports detailed statistics of serial communication parameters, operating mode, and transmitted/received frame counts.
- Supports logging via local storage, network storage, and serial port log output

TECHNICAL SPECIFICATIONS

SOFTWARE	
Network Protocol	IP, TCP/UDP, ARP, SNMP Trap, SSH, ICMP, DHCP Client, DNS, HTTP, HTTPS, RFC2217, NTP, TELNET, SNMP
IP Obtaining Method	Static IP/DHCP
DNS Resolution	Support
User Configuration	Web page configuration/CONSOLE port simple network parameter configuration
Simple Transparent	UDP / UDP Multicast / TCP Client / TCP Server / RealCOM / Pair Connection
Modbus	Modbus RTU /ASCII to Modbus TCP
Serial Port Data Packaging	Time and length can be set; the maximum pack length is 1460 bytes
Data Encryption	DES / 3DES / AES / RC2 / RC4 / RC5 / Blowfish
SSL Encryption	TLS1.0 / TLS1.1 / TLS1.2
TCP Server Connection	The single Serial port supports up to 32* TCP Client connections
TCP Client Connection	Single serial port supports up to 16 * TCP Server connections
Network Cache	Send: 16 Kbyte; receive: 16 Kbyte
Serial Port Cache	Send: 16 Kbyte; receive: 16 Kbyte
Heartbeat Package	Support TCP Keepalive, custom heartbeat package content
Registration Package	Customize the registration package content
RFC2217	Support

HTTPD Client	Support
WebSocket Client	Support
MQTT	Support
JSON	The JSON function is supported in the HTTPD Client, WebSocket Client, and MQTT mode
RealCOM	Support
Serial to Serial Data Forwarding	Support (prohibit, bidirectional forwarding, unidirectional forwarding, unidirectional receiving)
Modbus Address Mapping	This feature is only effective in Modbus RTU Slave and Modbus ASCII Slave modes and is mutually exclusive to the Modbus slave pre-read and Modbus slave address mapping features
Transmission Delay (Average)	<10ms
Supporting Software	Virtualcom

INTERFACE

100M Ethernet	2* 10/100Base-T (X) Auto-sensing RJ45 port, supporting full/half duplex, auto MDI/MDI-X, and 1.5kV electromagnetic isolation protection
Serial Port	Serial port type: 8* RS232 or RS485 is optional 6-position 3.81mm pitch locking terminal blocks Baud rate : 300bps to 460800bps Data bit : 7,8 Stop bit : 1,2 Parity : None, Odd, Even Serial Isolation : 2KV
Console Port	1* CONSOLE port, in accordance with USB2.0 specification, using Micro-B USB2.0 socket
Button	One-click restart or restore the factory Settings
Status LED	Power indicator, operation indicator, Ethernet interface SPEED/LINK indicator, Serial port indicator

APPROVALS & STANDARDS TESTED FOR

IEC 61000-4-2	Electrostatic Discharge: $\pm 8\text{kV}$ (contact), $\pm 15\text{kV}$ (air)
IEC 61000-4-5	Surge Immunity Power supply: co-mode $\pm 4\text{kV}$, difference mode $\pm 2\text{kV}$ RS485: co-mode $\pm 4\text{kV}$, difference mode $\pm 2\text{kV}$. Copper port: co-mode $\pm 6\text{kV}$, difference mode $\pm 2\text{kV}$

POWER

Input Voltage	Dual DC12 to 48V Redundancy power input
Power Consumption (full load)	< 2.6W@DC24V(RS232), < 2W@DC24V(RS485)
Connection	5-position 5.08mm pitch lock terminal block
Protection	Non-polarity

MECHANICAL

Ingress Protection	IP40
Installation	35mm DIN-Rail
Dimension	140×54×110 mm (DIN rail mounting clips excluded)
Weight	0.6kg

ENVIRONMENT

Operating temperature	-40 to 85°C
Storage temperature	-40 to 85°C
Relative humidity	5% to 95% (non-condensing)

ORDERING CODE

DDSE I MS 8 XXX ME

DDSE	Databridge Dynamic Serial to Ethernet Converter
I	Isolated ports
MS	Secured Modbus RTU to Modbus TCP
8	8 * Serial Port
XXX	232: 8 * RS232 485: 8 * RS485
ME	Fixed