

10/100 Four-port Industrial Modbus Gateways

Models MESR424D, MESR424T

B+B SMARTWORX

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PRODUCT FEATURES

- Modbus TCP, ASCII & RTU
- Ruggedized for extreme applications
- UL Class 1/Division 2
- -40 to +80 C° operating temperature
- Shock and vibration tested
- Dual Ethernet ports
- NEMA TS2 (Model# MESR424D)

The MESR424 series Modbus Gateways bridge devices on Modbus serial networks (RS-232, RS-422 or RS-485) with those on Modbus TCP networks, allowing seamless integration. The serial ports can be accessed over a LAN or WAN using Direct IP Mode connections. Supporting up to 16 masters and 32 slaves, the gateways feature auto-detecting 10/100. The easy to use software features Modbus messaging priority control and allows management through multiple TCP/IP client sessions. Serial data rates up to 230 kbps ensure maximum network flexibility. Class 1/Division 2 rated MESR424 series gateways are built for industrial environments, featuring a slim IP30 DIN rail mountable case. They operate from a range of DC power supply voltages and have pluggable terminal block connectors.

MESR424 series gateways can be powered via a barrel connector or a terminal block. (An external power supply is required; sold separately.) An additional Ethernet port functions much like an Ethernet switch, allowing pass-through connectivity for other Ethernet devices. This port can also be used to “daisy chain” multiple gateways.

ORDERING INFORMATION

MODEL NUMBER	ETHERNET PORT 1	ETHERNET PORT 2	SERIAL PORT
MESR424D *	RJ45	10/100 RJ45	RS-232/422/485 (DB9 male)
MESR424T	RJ45	10/100 RJ45	RS-232/422/485 (terminal block)

* NEMA TS2

ACCESSORIES

MDR-40-24 – Power supply, 24 VDC, 40W, DIN rail mount

PS12VLB-INT-MED – Power supply, 12 VDC, locking barrel

232NM9 – Null modem crossover cable, 3.1 m (10 ft)

C5UMB7FBG – Ethernet cable

All product specifications are subject to change without notice.
MESR424D & MESR424T_3617ds

10/100 Four-port Industrial Modbus Gateways

Models MESR424D, MESR424T



SPECIFICATIONS

POWER	
Source	External
Input Voltage	10 to 48 VDC (58 VDC maximum)
Connector	Removable terminal block (12 – 28 AWG) and barrel connector
Power Consumption	6 W
MECHANICAL	
LED Indicators	Serial Port, Ethernet Link, Speed
Switches	Reset Button
Dimensions	4.57 x 12.2 x 17.1 cm (1.8 x 4.4 x 6.75 in)
Enclosure	Panel Mount, Metal, IP 30, (Optional 35mm DIN Rail mount)
ENVIRONMENTAL	
Operating Temperature	-40 to 80°C (-40 to 176° F)
Operating Humidity	10 to 95% Non-condensing
Storage Temperature	-40 to 85°C
MTBF	70273 hours
MTBF Calc Method	Parts Count Reliability Prediction
NETWORK	
Serial Memory	8 KB per port
Network Memory	8 KB
LAN	10/100 Mbps auto-detecting, 10BaseT or 100BaseTX
Ethernet	IEEE 802.3 auto-detecting & auto MDI/MDX, 10/100

SPECIFICATIONS - continued

SERIAL TECHNOLOGY	
RS-232 (DB9)	TD, RD, DTR, DSR, RTS, CTS, DCD plus Signal Ground
RS-232 (terminal block)	TD, RD, RTS, CTS plus Signal Ground
RS-485 2-Wire	Data A(-), Data B(+), GND
RS-422/485 4-Wire	TDA(-), TDB(+), RDA(-), RDB(+), GND
Serial Connector	DB9 male or removable terminal blocks
Data Rate	Up to 230.4 Kbps
PROTOCOLS	
Protocols	TCP, IPv4, UDP, ARP, HTTP 1.0, HTTP 1.1, ICMP/PING, DHCP/BOOTP
IP Mode	Static, DHCP
TCP	User definable
OTHER	
Connection Mode	Server, Client, VCOM, Paired
Search	Serial direct COM and Ethernet Auto Search or specific IP
Diagnostics	Display PC IP, ping, save test config (text readable)
Firmware Upgrade	Vlinx Manager
SOFTWARE CONFIGURATION	
OS Compatibility	Windows XP (32/64 bit), 2003 Server (32/64 bit), Vista (32/64 bit), 2008 Server (32/64 bit), Win 7 (32/64 bit), Windows 2008 Server, Windows 10
ETHERNET PASS-THROUGH PORT	
Standards	IEEE 802.3, 802.3u, 802.3x
Processing Type	Store and Forward with 802.3x full duplex, non blocking flow control
Flow Control	IEEE 802.3x flow control, back pressure flow control
APPROVALS / CERTIFICATIONS	
Approvals	FCC Part 15 Class A CE UL Class 1/Division 2 NEMA TS2 (Model# MESR424D)
Shock	IEC60068-2-27
Vibration	IEC60068-2-6

MECHANICAL DIAGRAM

