Industrial Modbus Ethernet to Serial Gateways

MESR900 Series - Copper Models



PRODUCT FEATURES

- Ethernet enable Modbus RS-232/422/485
- Modbus TCP, ASCII & RTU
- Modbus flexibility – serial & Ethernet, Masters & slaves
- Modbus messaging priority control
- View messaging status in real time
- Easy configuration software
- UL Class 1 Division 2
- NEMA TS2 (MESR901)

MESR900 Modbus Gateways bridge devices on Modbus serial networks (RS-232, RS-422 or RS-485) with those on Modbus TCP networks, allowing seamless integration. Serial ports can be accessed over a LAN or WAN using Direct IP Mode connections. Supporting up to 16 masters and 32 slaves, these gateways feature autodetecting10/100 copper and fiber optic options. Easy-to-use software is designed for Windows 2000, 2003 Server, XP, Vista, 2008 Server and Windows 7. Serial data rates up to 230 kbps ensure maximum network flexibility.

MESR9xx gateways are built for use in 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. An external power supply, sold separately, is required. The MESR92x units have an additional Ethernet port which 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. MESR90x units have one Ethernet port. B&B Electronics' Vlinx™ is your number one choice for Ethernet to Serial conversion.



IN THE FIELD

Teaming Data Systems for Portable Power

Industry: Power & Energy
Product: Modbus Gateways

www.bb-elec.com/PortablePower

MESR901

Carrier data charges may apply.



IN THE FIELD

Transwestern Pipeline Maximizes Gas Chromatography Investment

Industry: Petroleum, Oil & Gas
Product: Modbus Gateways

www.bb-elec.com/Pipeline

MESR901, MESR902T

Carrier data charges may apply.

ORDERING INFORMATION

MODEL NUMBER	SERIAL PORTS	SERIAL CONNECTOR	ETHERNET PORT	ETHERNET CONNECTOR
MESR901 †	1	DB9 or Terminal Block	(1) Copper	RJ45
MESR902T	2	Terminal Block	(1) Copper	RJ45
MESR921	1	DB9 or Terminal Block	(2) Copper	(2) RJ45
MESR922T	2	Terminal Block	(2) Copper	(2) RJ45

** For fiber options please see page 168.*

† *NEMA TS2*

ACCESSORIES

MDR-20-24 - DIN rail mount power supply 24VDC, 1.0 A output power

MDR-40-24 - DIN rail mount power supply 24VDC, 1.7 A output power

DRPM25 - 35mm DIN Rail to Panel Mount Bracket, 25mm wide

ERS35 - DIN Rail 1 Meter 35mm Steel

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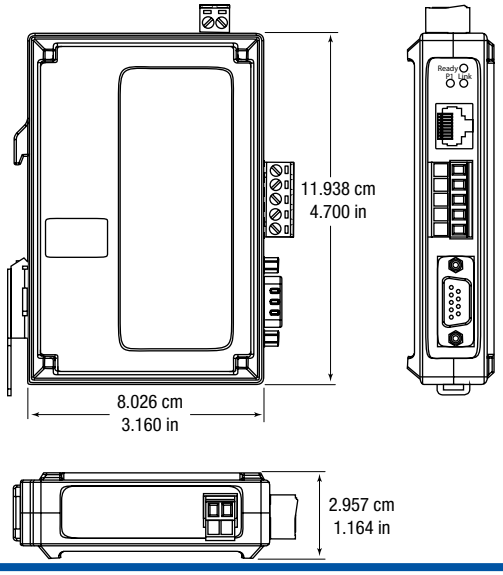


SPECIFICATIONS

SERIAL TECHNOLOGY	
RS-232	TD, RD, RTS, CTS, DTR, DCR, DTD, GND
RS-485 2-Wire	Data A(-), Data B(+), GND
RS-422/485 4-Wire	TDA(-), TDB(+), RDA(-), RDB(+), GND
Serial Connector	DB9M or Removable Terminal Blocks; 12 to 28 AWG
Data Rate	Up to 230.4 Kbps
POWER	
Source	External
Input Voltage	10 to 48 VDC (58 VDC Maximum)
Connector	Removable Terminal Block (12 – 28 AWG)
POWER CONSUMPTION	
MESR90X	4.0 Watts
MESR92X	6.0 Watts
MECHANICAL	
LED Indicators	Serial Port, Ethernet Link, Ready
Switches	Reset Button
Dimensions	MESR90x: 11.94 x 8.03 x 2.96 cm (4.70 x 3.16 x 1.16 in) MESR92x: 14.86 x 10.11 x 2.96 cm (5.85 x 3.98 x 1.16 in)
Weight	MESR90x: 149.7 g (0.33 lbs) MESR92x: 204.1 g (0.45 lbs)
ENVIRONMENTAL	
Operating Temperature	-40 to 80°C (-40 to 176°F)
Operating Humidity	0 to 95% Non-condensing
MTBF MESR90X	~ 132309 hours
MTBF MESR92X	~ 102593 hours
MTBF Calc Method	Parts Count Reliability Prediction
NETWORK	
Serial Memory	8 KB per port
Network Memory	4 KB
LAN	10/100 Mbps Auto-detecting
Ethernet	IEEE 802.3 auto detecting & auto MDI/MDX 10/100

PROTOCOLS	
Protocols	TCP, IPv4, ARP, HTTP 1.0, ICMP/PING, DHCP/BOOTP
IP Mode	Static, DHCP
TCP	User definable
OTHER	
Mode	Modbus RTU Master / Slave Modbus ASCII Master/Slave
Search	Serial direct COM and Ethernet Auto Search or specific IP
Diagnostics	Display PC IP, ping, test VCOM, save test config. (text readable)
Firmware Upgrade	Vlinx Manager
ETHERNET PASS-THROUGH PORT (MESR92X)	
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
MAC Address Table	2K
CONFIGURATION SOFTWARE	
Vlinx Manager	Windows 2000, XP (32/64 bit), 2003 Server (32/64 bit), Vista (32/64 bit), 2008 Server (32/64 bit), Win 7 (32/64 bit)
REGULATORY / CERTIFICATIONS / SAFETY	
Compliance	FCC, CE, NEMA TS2 (MESR901)
	UL Listed, File E222870 UL Class 1 Division 2 Groups A, B, C, D (HAZLOC), File E245458

MECHANICAL DIAGRAM - MESR90X MODELS



MECHANICAL DIAGRAM - MESR92X MODELS

