

Industrial Modbus Ethernet to Serial Gateways

MESR900 Series - Fiber Models

B+B SMARTWORX

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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 to use configuration software
- UL Class 1 / Division 2

MESR92x 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. 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 auto-detecting 10/100 copper and fiber optic options. Easy-to-use software is designed for Windows 2000, 2003 Server, XP, Vista, 2008 Server, 7, 8, 10. Serial data rates up to 230 kbps ensure maximum network flexibility.

MESR92x gateways are built for use in industrial environments, featuring a slim IP30 DIN rail mount 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 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. Includes easy configuration software.

ORDERING INFORMATION

MODEL NUMBER	SERIAL PORTS	SERIAL CONNECTOR+	ETHERNET PORTS	ETHERNET CONNECTOR
MESR921-MT	1	DB9 or Terminal Block	Multi-mode Fiber, Copper	(1) ST, (1) RJ45
MESR922T-MC	2	Terminal Block	Multi-mode Fiber, Copper	(1) SC, (1) RJ45
MESR922T-MT	2	Terminal Block	Multi-mode Fiber, Copper	(1) ST, (1) RJ45
MESR922T-SC	2	Terminal Block	Single-mode Fiber, Copper	(1) SC, (1) RJ45

+ All serial ports are software configurable for RS-232, RS-422, or RS-485.

Copper model options are also available.

ACCESSORIES

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

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

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

All product specifications are subject to change without notice.
MESR900 - Fiber Models_2318ds

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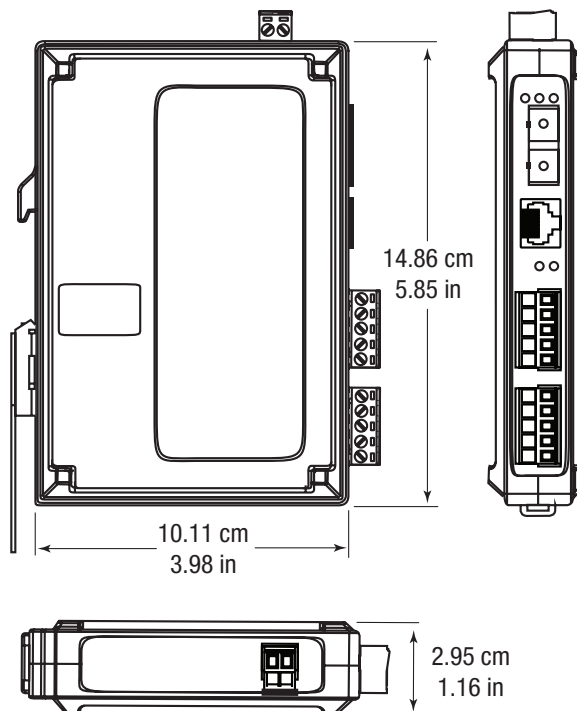
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SPECIFICATIONS

SERIAL TECHNOLOGY		
RS-232	TD, RD, RTS, CTS, DTR, DSR, 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	
FIBER OPTIC TECHNOLOGY		
	MESR92x-Mx	MESR922T-SC
Type / Wavelength	Multi-mode / 1310 nm	Single-mode / 1310 nm
Output Power	(-) 19 to (-) 14 dBm	(-) 15 to (-) 8 dBm
Receive Sensitivity	~ (-) 32 dBm	~ (-) 32 dBm
Cable	62.5 / 125 µm	9 / 125 µm
Connector	SC or ST	SC
Range	2 km (1.2 mi)	15 km (9.3 mi)
POWER		
Source	External	
Input Voltage	10 to 48 VDC (58 VDC maximum)	
Connector	Removable Terminal Block (12 – 28 AWG)	
POWER CONSUMPTION		
MESR92x	6.0 Watts	
MECHANICAL		
LED Indicators	Serial Port, Ethernet Link, Ready	
Switches	Reset Button	
Dimensions	14.86 x 10.11 x 2.96 cm (5.85 x 3.98 x 1.16 in)	
Enclosure	35mm DIN mount, Plastic, IP30	
Weight	201.4g (0.45 lb)	
eDrawing	Available on website	

MECHANICAL DIAGRAM - MESR92X MODELS



ENVIRONMENTAL	
Operating Temperature	-40 to +80°C (-40 to +176°F)
Operating Humidity	0 to 95% non-condensing
MTBF MESR92X	102593 hours
MTBF Calculation Method	Parts Count Reliability Prediction
NETWORK	
Serial Memory	8 KB per port
Network Memory	4 KB
IP Port Addresses	5300 – Heartbeat and Configuration. Setting in TCP Mode (paired mode). 8899 – MESR9xx Update.
LAN	10/100 Mbps auto-detecting
Ethernet	IEEE 802.3 auto-detecting & auto MDI/MDX 10/100
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, save test config. (text readable)
Firmware Upgrade	via Vlinx Manager
ETHERNET PASS-THROUGH PORT (MESR92X)	
Standards	IEEE 802.3, 802.3u, 802.3x
Processing Type	Store & 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 O/S	2000, XP, 2003 Server), Vista, 2008 Server, 7, 8, 10 (32/64 bit)
APPROVALS / DIRECTIVES/ STANDARDS	
Compliance	FCC, CE
UL	UL Listed, File E222870 UL Class 1 Division 2 Groups A, B, C, D (HAZLOC), File E245458
Directives	2014/30/EU - Electromagnetic Compatibility Directive (EMC) 2011/65/EU - Reduction of Hazardous Substances Directive (RoHS) 2012/19/EU - Waste Electrical and Electronic Equipment (WEEE)
Standards	EN 55032 Class B - Electromagnetic Compatibility of Multimedia Equipment - Emission Requirements EN 55024 - Information Technology Equipment - Immunity Characteristics - Limits and Methods of Measurement (ITE)