B&B ELECTRONICS

PRODUCT INFORMATION

VESR4x4

Vlinx ™ 4-Port Industrial Ethernet Serial Servers

- ✓ **Ruggedized for extreme applications**
- ✓ **Heavy Industrial 61000-6-2 EMC tested**
- ✓ **IEC600068-2-27 (shock) and 600068-2-6 (vibration) tested**
- ✓ **Wide Operating Temperature (-40 to 80C)**
- ✓ **Independent Serial Port selection for RS-232, RS-422, or RS-485**
- ✓ **Wide Voltage input 10 to 58VDC, via terminal block or locking barrel plug**

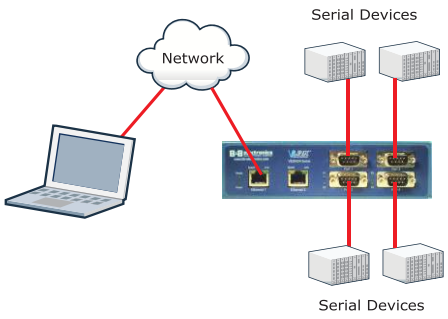
VESR4x4 Serial Servers connect serial devices (RS-232, RS-422 or RS-485) to Ethernet networks, allowing the serial device to become a node on the network. The serial ports can be accessed over a LAN/WAN using Direct IP Mode, Virtual COM Port, or Paired Mode connections. VESR4x4 Serial Servers feature 10BaseT or 100BaseTX copper network media and several fiber optic media options, depending on the model. Many models also feature an additional copper Ethernet pass-through port. VESR4x4 Serial Servers are built for use in industrial environments and feature heavy duty metal enclosures that are panel and DIN rail mountable. The product operates from a range of DC power supply voltages and features pluggable terminal block power connectors as well as a locking barrel connector that facilitates redundant power sources.

Fiber Optic Ethernet Ports - Choose a serial server with fiber optic Ethernet ports when the application requires long distance runs or high RFI/EMI noise is present. Many applications require a high level of noise immunity and fiber eliminates this problem between devices. Fiber optic connections far exceed the 100m limitation of standard Ethernet copper ports. Multi-mode fiber can be extended up to 2km distance while single-mode fiber can run as far as 20km.

Ease of Use- Configuration, upgrades and monitoring of the serial server are simple, Easy tasks with Vlinx Manager Software. It installs right on your PC giving you access the serial server via your desktop. Remotely manage the serial server over a LAN or WAN via the build-in web server. This is helpful for off-site troubleshooting and can be done with a simple web browser.

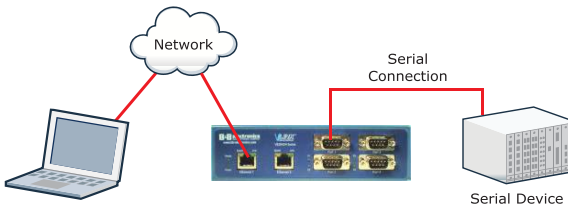
Direct IP Mode

TCP/IP or UDP/IP socket applications communicate directly with serial devices



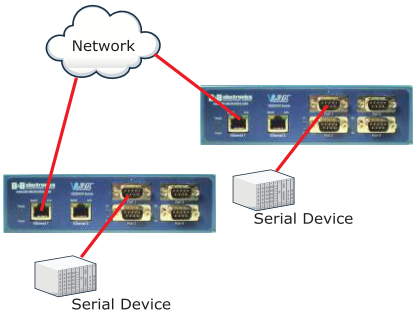
Virtual COM Mode

Communicate with serial devices through your network as if they were connected to a physical COM port.



Paired Mode

Serial devices communicate with each other by tunneling through your network.



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PRODUCT INFORMATION

Specifications

Serial Technology			
RS-232 (DB9) RS232 (terminal block)	TD, RD, DTR, DSR, RTS, CTS, DCD plus Signal Ground 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	DB9M or Removable Terminal Blocks		
Data Rate	Up to 230.4 Kbps		
Fiber Optic Technology			
	VESR424x-Mx	**VESR424-Sx**	
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 or ST	
Range	1.2 miles (2 km)	12.4 miles (20 km)	
Power			
Source	External		
Input Voltage	10 to 58 VDC		
Connector	Removable Terminal Block (16 – 28 AWG)		
Power Consumption	6.0 Watts Max.		
Mechanical			
LED Indicators	Serial Port, Ethernet Link, Speed		
Switches	Reset Button		
Dimensions	VESR4x4:1.8 x 4.4 x 6.75 in (4.57 x 12.2 x 17.1 cm)		
Enclosure	35mm DIN mount, Metal, IP 30		
Environmental			
Operating Temp	-40 to 80°C (-40 to 176° F)		
Operating Humidity	10 to 95% Non-condensing		
MTBF	VESR4x4: 70273 hours		
MTBF Calc 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)	8888 – VESR4x4 Update
Network Communications			
LAN	10/100 Mbps Auto-detecting , 10BaseT or 100BaseTX		
Network Physical Layer Standards			
Ethernet	IEEE 802.3 auto detecting & auto MDI/MDX, 10BaseT and 100Base TX		
Protocols			
Protocols	TCP, IPv4, UDP, ARP, HTTP 1.0, ICMP/PING, DHCP/BOOTP		
IP Mode	Static, DHCP		
TCP	User definable		
Other			
Connection Mode	Server, Client, VCOM, Paired		
Client Connection	At power up or upon data arrival		
Search	Serial direct COM and Ethernet Auto Search or specific IP		
Diagnostics	Display PC IP, ping, test VCOM		
Firmware Upgrade	Web GUI through Ethernet		
Ethernet Pass-through Port (VESR424)			
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		
Configuration Software			
OS Compatibility	Windows 2000, XP (32/64 bit), 2003 Server (32/64 bit), Vista (32/64 bit), 2008 Server (32/64 bit), Windows 7 (32/64 bit)		
Regulatory / Certifications / Safety			
Compliance	FCC Part 15 Class A, CE NEMA TS2 Shock Vibration	 IEC 600068-2-27 IEC 600068-2-6	

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Ordering Information

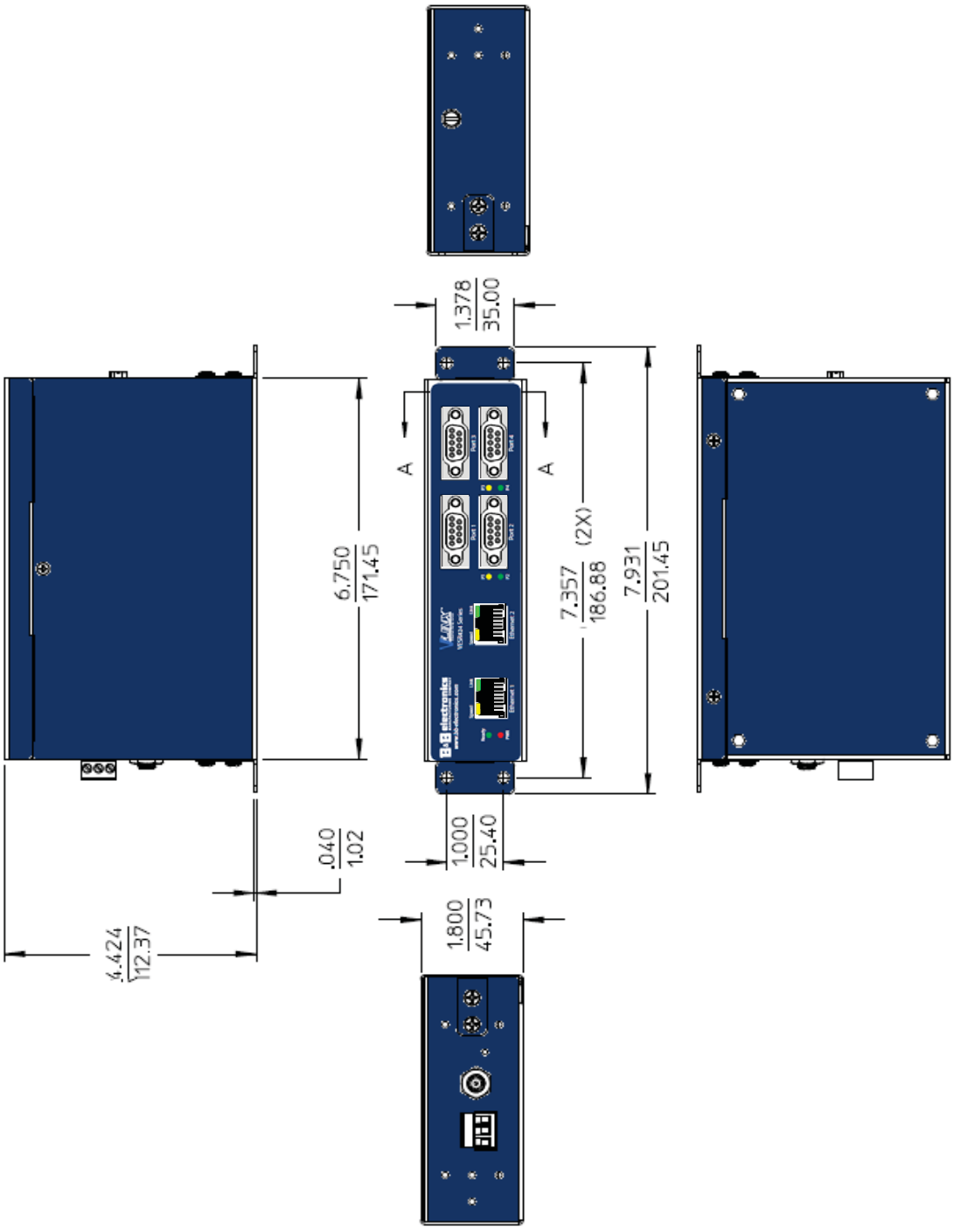
Model Number	Ethernet Ports	Ethernet Connector 1	Ethernet Connector 2	Serial Connector (x4)
VESR414D	1	RJ-45	---	DB9 Male
VESR414T	1	RJ-45	---	Terminal Block
VESR424D	2	RJ-45	RJ-45	DB9 Male
VESR424D-MC	2	Multi-mode SC	RJ-45	DB9 Male
VESR424D-MT	2	Multi-mode ST	RJ-45	DB9 Male
VESR424D-SC	2	Single-mode SC	RJ-45	DB9 Male
VESR424D-ST	2	Single-mode ST	RJ-45	DB9 Male
VESR424T	2	RJ-45	RJ-45	Terminal Block
VESR424T-MC	2	Multi-mode SC	RJ-45	Terminal Block
VESR424T-MT	2	Multi-mode ST	RJ-45	Terminal Block
VESR424T-SC	2	Single-mode SC	RJ-45	Terminal Block
VESR424T-ST	2	Single-mode ST	RJ-45	Terminal Block

Accessory Items

Power Supply	MDR-40-24	Din Rail Mount, 24VDC, 40 Watt
	PS12VLB-INT-MED	12VDC, Locking Barrel
Cable	232NM9 Null Modem Crossover Cable for DTE to DTE connection	
Rail	ERS35 one-meter length of steel 35mm DIN Rail	
Panel Mount Bracket Kit	#9030	

Note: PS12VLB-INT-MED locking barrel connector: Female Locking Barrel 5.5 mm OD, 2.5 mm Center Conductor, 9 mm long, Center Positive

Mechanical Diagram



Dimensional Diagram of a VESR424 Serial Server (dimensions in inches & millimeters)

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