Four Port Industrial Ethernet Serial Servers

VESR400 Series

PRODUCT FEATURES

- Ruggedized for extreme applications
- Class 1 / Division 2
- Heavy industrial 61000-6-2 EMC tested
- IEC600068-2-27 (shock) and 600068-2-6 (vibration) tested
- Wide operating temperature (-40 to 80°C)
- Independent serial port selection for RS-232, RS-422, or RS-485
- 10-48VDC input, via terminal block or locking barrel plug
- NEMA TS2 (VESR424D)

Vlinx™ VESR424 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. VESR424 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. Class 1/Division 2 VESR424 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 to 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.

ORDERING INFORMATION

MODEL NUMBER	ETHERNET PORTS	ETHERNET CONNECTOR 1	ETHERNET CONNECTOR 2	SERIAL CONNECTOR (X4)
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

Mounting included: DIN Rail Kit and Panel Mount Kit

† *NEMA TS2*

ACCESSORIES

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

ERS35 - 1 M DIN Rail, 35MM STEEL

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SPECIFICATIONS

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	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	2 km (1.2 miles)	20 km (12.4 miles)

POWER	
Source	External
Input Voltage	10 to 48 VDC (58 VDC maximum)
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	17.145 x 11.237 x 4.572 cm (6.750 x 4.424 x 1.800 in)
Enclosure	35 mm DIN Rail, Panel Mount, metal, IP30

ENVIRONMENTAL	
Operating Temperature	-40 to 80°C (-40 to 176°F)
Operating Humidity	10 to 95% Non-condensing
MTBF	VESR424: 70273 hours
MTBF Calc Method	Parts Count Reliability Prediction

NETWORK	
Serial Memory	8 KB per port
Network Memory	4 KB

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/UDP	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	Vlinx Manager

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 (VESR424D)
	UL Class 1/Division 2
	Shock IEC 600068-2-27
	Vibration IEC 600068-2-6

MECHANICAL DIAGRAM