# Four Port Industrial Ethernet Serial Servers

## VESR424 Series


### PRODUCT FEATURES

- Ruggedized for extreme applications
- UL Class 1/Division 2
- -40 to +80 C° operating temperature
- Shock and vibration tested
- Dual Ethernet ports with fiber options
- NEMA TS2 (Model# VESR424D)

Vlinx™ VESR424 series 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. Serial ports can be accessed over a LAN/WAN using Direct IP Mode, Virtual COM Port, or Paired Mode connections. VESR424 series Serial Servers feature 10BaseT or 100BaseTX copper network media and several fiber optic media options, depending on the model. Many models feature an additional copper Ethernet pass-through port. These Class 1/Division 2 VESR424 series Serial Servers are built for use in industrial environments with 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 |

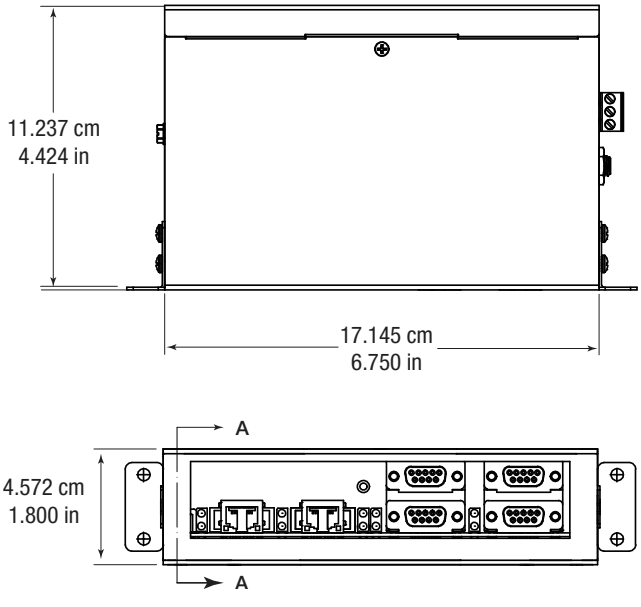
| OTHER | |
|---|---|
| Connection Mode | Server, Client, VCOM, Paired |
| Client Connection | At power up or upon data arrival |
| Search | Serial direct COM and Ethernet Auto Search or specific IP |
| Diagnostics | Display PC IP, ping, test VCOM |
| Firmware Upgrade | Vlinx Manager |

| 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, |
| | UL Class 1/Division 2 |
| | Shock IEC 600068-2-27 |
| | Vibration IEC 600068-2-6 |
| | NEMA TS2 (Model# VESR424D) |

## MECHANICAL DIAGRAM

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