

VESR9xx

Vlinx™ Industrial Ethernet Serial Servers

- ✓ Ethernet Enable Serial Devices
- ✓ Direct IP, Virtual COM Port, or Paired Mode
- ✓ Ethernet Pass-through Port Available
- ✓ Ethernet Fiber Options
- ✓ Serial MEI Ports
- ✓ UL Class 1 Div 2
- ✓ Complies with NEMA TS1 & TS2



Environmental requirements for Traffic Control Equipment

Take control of your serial devices with VLINX™ VESR 9xx Industrial Ethernet Serial Servers. If it has a Serial Port, it can be monitored and controlled from anywhere on your Ethernet LAN or WAN. Keep it at maximum productivity without leaving your office. Even troubleshoot it from outside your LAN via the Internet. The easy to use Vlinx™ Manager software puts access to your whole shop on your desk. Configure devices, upgrade firmware and monitor activity. Configuration changes can also be made using a web browser.

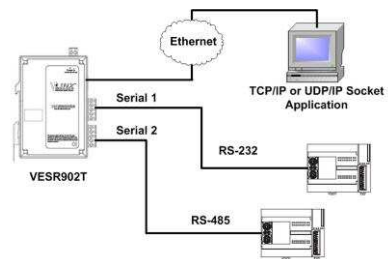
Multiple fiber optic options make integration into any existing network quick. No need to purchase an extra media converter when you can choose from Multi-mode SC / ST, 15km Single-mode SC/ST, 40 km Single-mode SC/ST, or 80 km Single-mode SC/ST.

VESR92x series servers also feature an additional copper RJ45 port that allows you to connect another Ethernet device or PC work-station. This Pass-through port functions much like an unmanaged switch.

Heartbeat connectivity keeps the serial server on-line. If connectivity is lost it will attempt to reconnect every five seconds until a connection is regained. A manual reboot is not required when communications are restored.

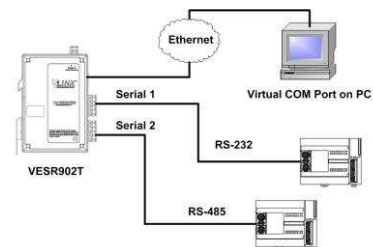
Direct IP Mode

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



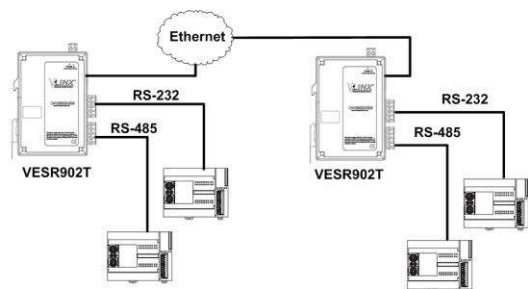
Virtual COM Mode

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.



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 | | | |
| Data Rate | Up to 230.4 Kbps | | | |
| Fiber Optic Technology | | | | |
| | VESR9xx-Mx | VESR9xx-Sx | VESR9xx-Sx40 | VESR9xx-Sx80 |
| Type / Wavelength | Multi-mode / 1310 nm | Single-mode / 1310 nm | Single-mode / 1310 nm | Single-mode / 1510 nm |
| Output Power | (-)19 to (-) 14 dBm | (-) 15 to (-) 8 dBm | (-) 5 to 0 dBm | (-) 5 to 0 dBm |
| Receive Sensitivity | ~ (-) 32 dBm | ~ (-) 32 dBm | ~ (-) 34 dBm | ~ (-) 34 dBm |
| Cable | 62.5 / 125 µm | 9 / 125 µm | 9 / 125 µm | 9 / 125 µm |
| Connector | SC or ST | SC or ST | SC or ST | SC or ST |
| Range | 1.2 miles (2 km) | 9.3 miles (15 km) | 25 miles (40 km) | 49.7 miles (80 km) |
| Power | | | | |
| Source | External | | | |
| Input Voltage | 10 to 48 VDC (58 VDC Maximum) | | | |
| Connector | Removable Terminal Block (12 – 28 AWG) | | | |
| Power Consumption | VESR90x: 4.0 Watts Max. | | VESR92x: 6.0Watts Max. | |
| Mechanical | | | | |
| LED Indicators | Serial Port, Ethernet Link, Ready | | | |
| Switches | Reset Button | | | |
| Dimensions | VESR90x: 1.2x3.2x4.7in (3.0x8.1x11.9cm) | | VESR92x: 1.2x4.0x5.9in (3.0x10.2x15.0cm) | |
| Enclosure | 35mm DIN mount, Plastic, IP 30 | | | |
| Weight | VESR90x: 0.33 lbs (149.7 g) | | VESR92x: 0.45 lbs (204.1 g) | |
| Environmental | | | | |
| Operating Temp | -40 to 80°C (-40 to 176° F) | | | |
| Operating Humidity | 10 to 95% Non-condensing | | | |
| MTBF | VESR90x: ~ 132309 hours | | VESR92x: ~ 102593 hours | |
| MTBF Calc Method | Parts Count Reliability Prediction | | | |
| NEMA TS1 & TS2 | Complies with NEMA TS1 & TS2 Environmental requirements for Traffic Control Equipment | | | |
| 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 – VESR 9xx 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, save test config (text readable) | | | |
| Firmware Upgrade | Web GUI through Ethernet | | | |
| 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) | | | |
| Ethernet Pass-through Port (VESR92x) | | | | |
| 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 | | | | |
| OS Compatibility | 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 | | UL Class 1 Division 2 Groups A, B, C, D (HAZLOC) File E245458 | |
| | UL Listed, File E222870 | | | |

Ordering Information

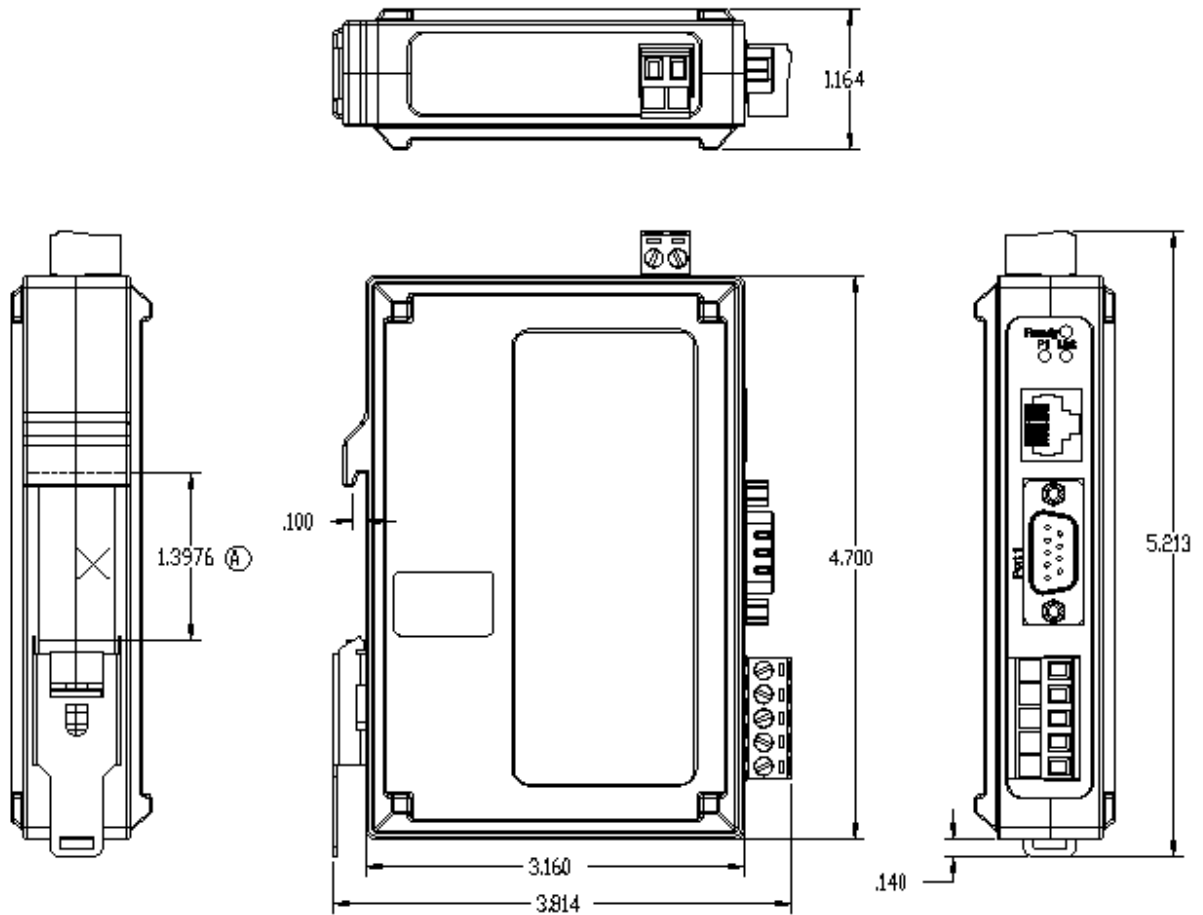
| Model Number | Serial Ports | Serial Connectors | Ethernet Media | Ethernet Connectors |
|---------------|--------------|-------------------|--------------------------------|---------------------|
| VESR901 | 1 | DB9 & TB | CAT 5 | RJ45 |
| VESR901-MC | 1 | DB9 & TB | Multi-mode Fiber | SC |
| VESR901-MT | 1 | DB9 & TB | Multi-mode Fiber | ST |
| VESR901-SC | 1 | DB9 & TB | Single Mode Fiber | SC |
| VESR901-SC40 | 1 | DB9 & TB | Single Mode Fiber - 40 km | SC |
| VESR901-SC80 | 1 | DB9 & TB | Single Mode Fiber - 80 km | SC |
| VESR901-ST | 1 | DB9 & TB | Single Mode Fiber | ST |
| VESR901-ST40 | 1 | DB9 & TB | Single Mode Fiber - 40 km | ST |
| VESR901-ST80 | 1 | DB9 & TB | Single Mode Fiber - 80 km | ST |
| VESR902D | 2 | DB9 | CAT 5 | RJ45 |
| VESR902D-MC | 2 | DB9 | Multi-mode Fiber | SC |
| VESR902D-MT | 2 | DB9 | Multi-mode Fiber | ST |
| VESR902D-SC | 2 | DB9 | Single Mode Fiber | SC |
| VESR902D-SC40 | 2 | DB9 | Single Mode Fiber - 40 km | SC |
| VESR902D-SC80 | 2 | DB9 | Single Mode Fiber - 80 km | SC |
| VESR902D-ST | 2 | DB9 | Single Mode Fiber | ST |
| VESR902D-ST40 | 2 | DB9 | Single Mode Fiber - 40 km | ST |
| VESR902D-ST80 | 2 | DB9 | Single Mode Fiber - 80 km | ST |
| VESR902T | 2 | TB | CAT 5 | RJ45 |
| VESR902T-MC | 2 | TB | Multi-mode Fiber | SC |
| VESR902T-MT | 2 | TB | Multi-mode Fiber | ST |
| VESR902T-SC | 2 | TB | Single Mode Fiber | SC |
| VESR902T-SC40 | 2 | TB | Single Mode Fiber - 40 km | SC |
| VESR902T-SC80 | 2 | TB | Single Mode Fiber - 80 km | SC |
| VESR902T-ST | 2 | TB | Single Mode Fiber | ST |
| VESR902T-ST40 | 2 | TB | Single Mode Fiber - 40 km | ST |
| VESR902T-ST80 | 2 | TB | Single Mode Fiber - 80 km | ST |
| VESR921 | 1 | DB9 & TB | CAT 5 | Two RJ45 |
| VESR921-MC | 1 | DB9 & TB | CAT 5, Multi-mode Fiber | One RJ45, One SC |
| VESR921-MT | 1 | DB9 & TB | CAT 5, Multi-mode Fiber | One RJ45, One ST |
| VESR921-SC | 1 | DB9 & TB | CAT 5, Single Mode Fiber | One RJ45, One SC |
| VESR921-SC40 | 1 | DB9 & TB | CAT 5, Single Mode Fiber 40 km | One RJ45, One SC |
| VESR921-SC80 | 1 | DB9 & TB | CAT 5, Single Mode Fiber 80 km | One RJ45, One SC |
| VESR921-ST | 1 | DB9 & TB | CAT 5, Single Mode Fiber | One RJ45, One ST |
| VESR921-ST40 | 1 | DB9 & TB | CAT 5, Single Mode Fiber 40 km | One RJ45, One ST |
| VESR921-ST80 | 1 | DB9 & TB | CAT 5, Single Mode Fiber 80 km | One RJ45, One ST |
| VESR922T | 2 | TB | CAT 5 | Two RJ45 |
| VESR922T-MC | 2 | TB | CAT 5, Multi-mode Fiber | One RJ45, One SC |
| VESR922T-MT | 2 | TB | CAT 5, Multi-mode Fiber | One RJ45, One ST |
| VESR922T-SC | 2 | TB | CAT 5, Single Mode Fiber | One RJ45, One SC |
| VESR922T-SC40 | 2 | TB | CAT 5, Single Mode Fiber 40 km | One RJ45, One SC |
| VESR922T-SC80 | 2 | TB | CAT 5, Single Mode Fiber 80 km | One RJ45, One SC |
| VESR922T-ST | 2 | TB | CAT 5, Single Mode Fiber | One RJ45, One ST |
| VESR922T-ST40 | 2 | TB | CAT 5, Single Mode Fiber 40 km | One RJ45, One ST |
| VESR922T-ST80 | 2 | TB | CAT 5, Single Mode Fiber 80 km | One RJ45, One ST |

Accessory Items

| | |
|---------------------|-----------|
| Power Supply | MDR-40-24 |
| Panel Mount Adapter | DRPM25 |



Mechanical Diagram – Units with one Ethernet Port



(A) DESIGNED TO FIT ON A STANDARD 35mm DIN RAIL

Mechanical Diagram – Units with Two Ethernet Ports

