

# 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.

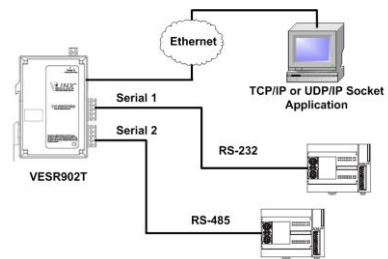
Multiple fiber optic options make integration into any existing network quick. No need to purchase an extra media converter when you can choose from Multi-mode SC / ST, 15km Single-mode SC/ST, 40 km Single-mode SC/ST, or 80 km Single-mode SC/ST.

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.

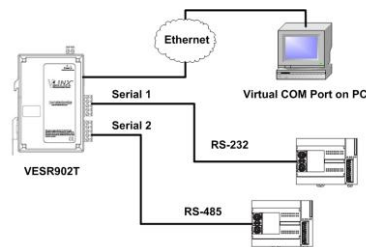
### Direct IP Mode

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



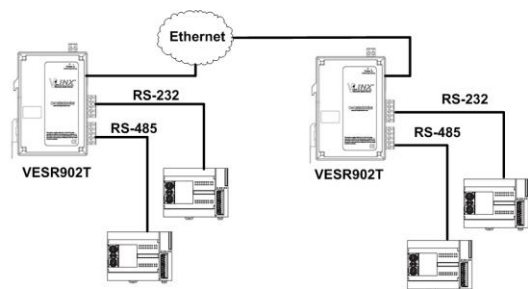
### Virtual COM Mode

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**

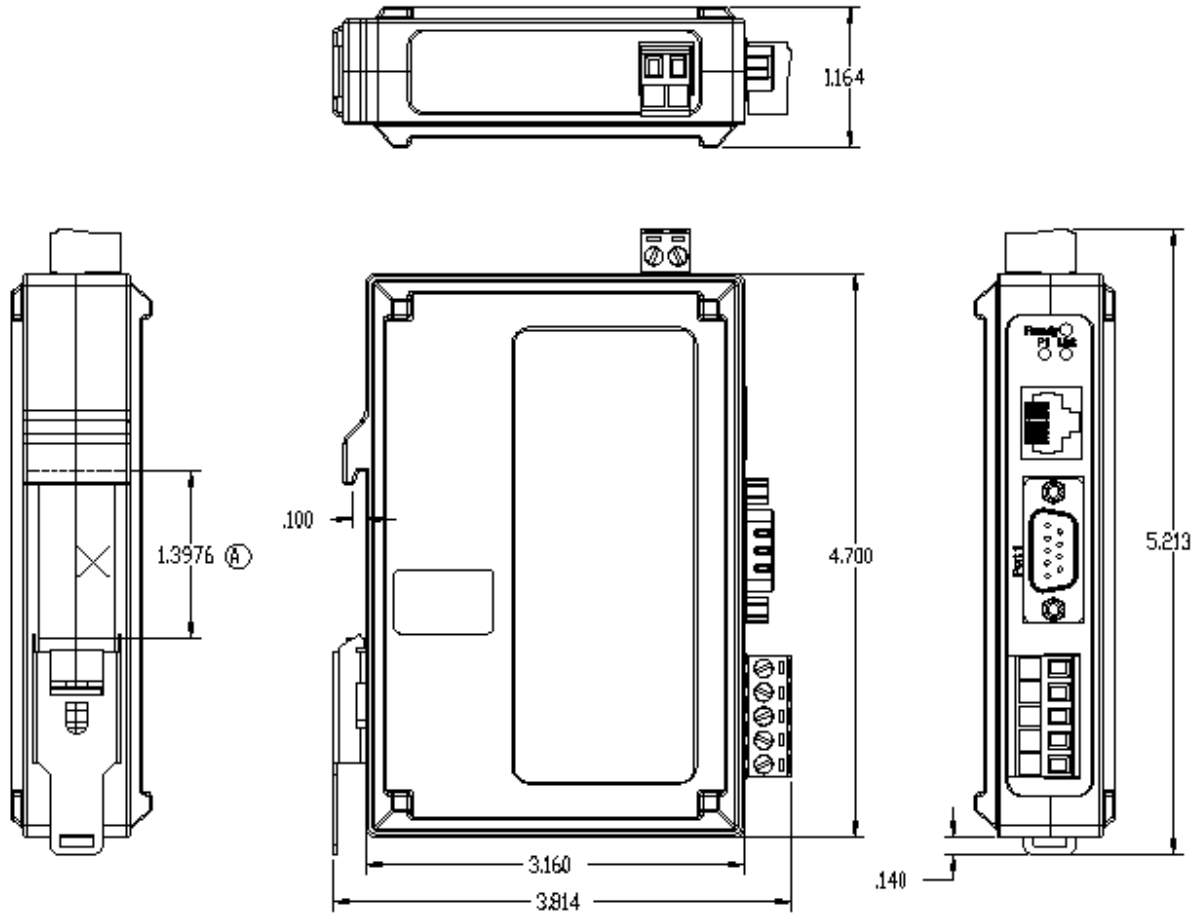
Model Number	Serial Ports	Serial Connectors	Ethernet Media	Ethernet Connectors
VESR901	1	DB9 & TB	CAT 5	RJ45
VESR901-MC	1	DB9 & TB	Multi-mode Fiber	SC
VESR901-MT	1	DB9 & TB	Multi-mode Fiber	ST
VESR901-SC	1	DB9 & TB	Single Mode Fiber	SC
VESR901-SC40	1	DB9 & TB	Single Mode Fiber - 40 km	SC
VESR901-SC80	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**

