

## Industrial Ethernet Serial Servers – One, Two or Four Ports

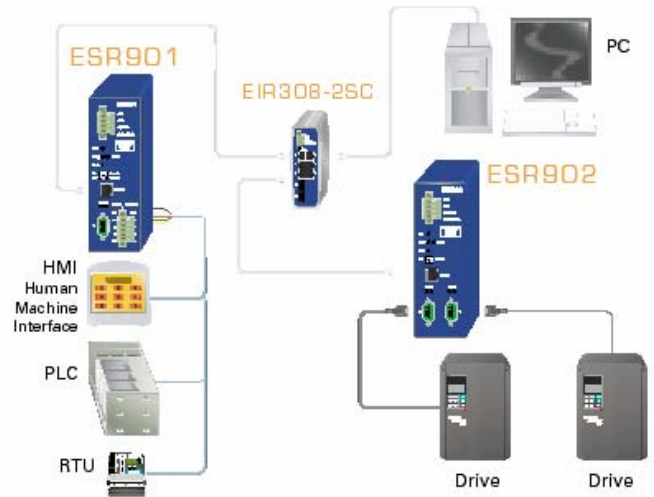
### *Ethernet Enable Serial Ports on Industrial Equipment*

Models: ESR901, ESR902, ESR904 

#### Overview

Industrial and commercial measurement and control systems often have standalone devices with unused serial ports. B&B Electronics' ESR Serial Servers allow you to connect those ports into your existing LAN or WAN, giving you access to more information and the ability to configure, manage and troubleshoot those devices from a control room, office or even a distant location via a WAN. Save the cost, time and trouble of carrying a laptop out to devices located in distant, cold, dirty or uncomfortable environments.

ESR Serial Servers are built for use in industrial environments, featuring an IP30 approved slim line DIN rail mountable case. They operate from a range of voltages using AC or DC power, feature terminal block power connectors and even support redundant DC power.



Connect your serial device to the ESR's serial port and connect the ESR to your LAN. Your networked computer 'sees' the device over the network as a virtual serial connection. ESR serial servers support TCP or UDP protocols and allow transmitting to and receiving from multiple IP addresses. There are four methods of configuring ESR serial servers: via Vlinx Management Software, Web Server, Telnet or via a direct RS-232 console connection using a terminal program.

#### Features

- ESR901 – Single port, ESR902 – Dual port, ESR904 – Quad port
- Can be accessed and configured via web browser using Web Server
- Slim line DIN rail mountable case
- Supports and auto-selects 10/100 Mbps Ethernet
- Supports RS-232, RS-422 and RS-485 half and full-duplex serial interfaces
- ESR901 available with terminal block or DB-9 serial connector
- Supports LAN and WAN communications
- In Server mode supports eight individual client sessions
- UDP mode allows broadcast to and from multiple IP addresses
- Management access password protected
- Virtual COM drivers for Windows NT/98/ME/2000/XP
- Accepts AC or DC power supplies over a wide range of voltages
- Terminal block power connectors for industrial installations
- Redundant DC power input

## Applications

- Access remote devices with serial ports via your network
- Manage, configure, program devices remotely via web server
- Industrial devices such as PLCs, drives, motor controls, process analyzers
- Building/commercial /security – parking control, security, cameras
- Traffic management – lights, systems, cameras
- Retail/point of sale – cash registers, scanners, scales

## Vlinx™ Manager Software

Vlinx Manager software allows easy access to the serial server to configure the server and its ports, upgrade server firmware and monitor port status and activity. When the Vlinx Manager opens it will search for and display all serial servers on the network.

The Monitor Port feature allows you to use any PC on the LAN/WAN to actively view and troubleshoot the communications status. It shows when there is a client connection to the server and the client IP address. It displays the number of bytes transmitted and received as well as the status of the hardware handshaking lines.

## Web Server

ESR serial servers can be accessed and configured from any web browser (such as Internet Explorer) on the LAN/WAN. This allows you to remotely manage the software and your serial device. It also allows off-site troubleshooting.

## Heartbeat Connection Protection

Vlinx Serial Servers provide automatic resumption of the TCP data connection in case of a power failure or loss of an Ethernet connection on either the client or server. Once the Heartbeat connection is established, the server sends a signal to the client every five seconds until communication is re-established. Without this feature a device that loses a connection and stops communicating would not be able to reconnect without a person attending to the problem. The Heartbeat feature works with virtual COM and TCP direct IP connections.

## Product Specifications

<b>Serial Connections</b>	ESR901: 1 (terminal block or DB-9 male) ESR902: 2 DB-9 male ESR904: 4 DB9 male - DTE configuration
<b>Serial - Model ESR901</b>	One RS-232, RS-422 or RS-485, half & full-duplex, software selectable
<b>Serial - Model ESR902</b>	Two RS-232, RS-422 or RS-485, half & full-duplex, software selectable
<b>Serial - Model ESR904</b>	Four RS-232, RS-422 or RS-485, half & full-duplex, software selectable
<b>Ethernet Connection</b>	Single RJ-45 female
<b>Serial Connectors</b>	<b>ESR901:</b> One 9-pin, D-type male (DB9m) and one removable terminal block , connector selectable using DB9/terminal switch, interface type software selectable as RS-232, RS-422, RS-485H or RS-485F <b>ESR902:</b> Two 9-pin D-type male (DB9m), interface type software selectable as RS-232, RS-422, RS-485H, RS485F <b>ESR904:</b> Four 9-pin D-type male (DB9m) DTE, interface type software selectable as RS-232, RS-422, RS485H, or RS-485F
<b>LAN</b>	10/100 Mbps Auto-detecting - 10 Base T, 100 Base TX
<b>RS-232</b>	TX, RX, RTS, CTS, DTR, DSR, DCD, GND
<b>RS-422</b>	TX+, TX-, RX+, RX-, RTS+, RTS-, CTS+, CTS-, GND
<b>RS-485H</b>	Data+, Data-, GND
<b>RS-485F</b>	TX+, TX-, RX+, RX-, GND
<b>Data Rate</b>	110 bps to 230.4 kbps
<b>Protocols</b>	TCP, IP, ARP, DHCP, Telnet, HTTP, UDP, ICMP
<b>Management</b>	Vlinx Manager, Web Server, Serial Console, Telnet



**International Headquarters:** 707 Dayton Road PO Box 1040 Ottawa, IL 61350 USA  
815-433-5100 Fax 433-5104 [www.bb-elec.com](http://www.bb-elec.com) [orders@bb-elec.com](mailto:orders@bb-elec.com) [support@bb-elec.com](mailto:support@bb-elec.com)

**European Headquarters:** Westlink Commercial Park Oranmore Co. Galway Ireland  
+353 91 792444 Fax +353 91 792445 [www.bb-europe.com](http://www.bb-europe.com) [orders@bb-elec.com](mailto:orders@bb-elec.com) [support@bb-europe.com](mailto:support@bb-europe.com)

## ***Power and Environment***

<b>Power Requirements</b>	8VAC to 24VAC or 9VDC to 48VDC
<b>Power Consumption</b>	<b>ESR901:</b> 320mA @12VDC <b>ESR902:</b> 340mA @12VDC <b>ESR904:</b> 360mA @12VDC Power supply start-up time $\leq$ 24 ms
<b>Power Connector</b>	Terminal Block
<b>Operating Temperature</b>	-10 to 80°C
<b>Storage Temperature</b>	-20 to 85°C
<b>Humidity</b>	5-98% R.H.
<b>Approvals</b>	CE, FCC, IP30
<b>Indicators</b>	Power: Red LED Link: Yellow or green LED (10 BaseT or 100 BaseTX) Ready: Flashing green LED
<b>Dimensions</b>	<b>ESR901/ESR902:</b> 4.46 x 15.52 x 10.46 cm (1.75 x 6.1 x 4.1 in) <b>ESR904:</b> 4.46 x 18.03 x 10.46 cm (1.75 x 7.1 x 4.1 in)

## ***Ordering Information***

<b>ESR901</b>	<b>1-Port Ethernet Serial Server</b>
<b>ESR902</b>	<b>2-Port Ethernet Serial Server</b>
<b>ESR904</b>	<b>4-Port Ethernet Serial Server</b>



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**European Headquarters:** Westlink Commercial Park Oranmore Co. Galway Ireland  
+353 91 792444 Fax +353 91 792445 [www.bb-europe.com](http://www.bb-europe.com) [orders@bb-elec.com](mailto:orders@bb-elec.com) [support@bb-europe.com](mailto:support@bb-europe.com)