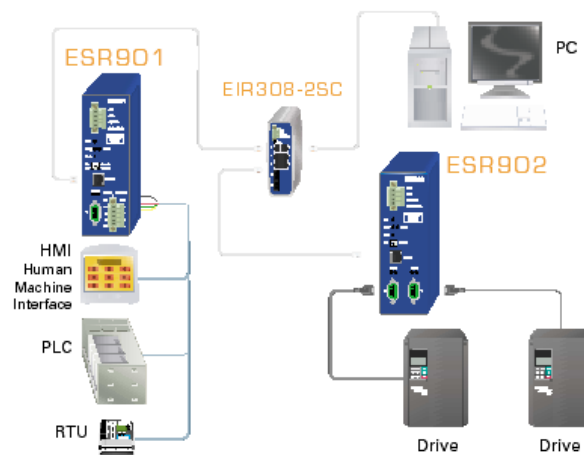


## Models: **ESR901, ESR902 and ESR904** **Industrial Ethernet Serial Servers**



### Features

- ✓ Ethernet Enable 1, 2, or 4 Serial Ports
- ✓ IP 30 DIN Rail Mountable Case
- ✓ RS-232/422/485 Full and Half-duplex
- ✓ Auto detect 10/100 Mbps Ethernet
- ✓ Virtual COM Drivers for Windows NT/98/ME/2000/2003/XP and Vista



### Functional Description

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

### Ordering Information

Model Number	Description
ESR-901	1 Serial Port Industrial Ethernet Serial Server
ESR-902	2 Serial Port Industrial Ethernet Serial Server
ESR-904	4 Serial Port Industrial Ethernet Serial Server
Accessories	
MDR-40-12	Industrial Slim-line Power Supply

## Operation

- A detailed operating manual is contained on the CD ROM which ships with the product.
- 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
- 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
- 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.

## Specifications

### Serial

Serial Interfaces: RS-232 (DTE), RS-422, RS-485 (2/4-Wire)  
 Serial Connectors: ESR901: TB and DB9 M (selectable)  
 ESR902: 2 x DB9 M  
 ESR904: 4 x DB9 M  
 Baud Rate: 110 to 230.4 kbps  
 Parity: None, Even, Odd, Mark, Space  
 Data Bits: 5, 6, 7, or 8  
 Stop Bits: 1, 1.5, or 2  
 Serial Buffer 8 kb per port

**Note: Refer to the manual for pin-outs and signals.**

### Power

Voltage: 9 to 48 VDC or 8 to 24 VAC  
 Power Consumption: ESR901: 320 mA @ 12 VDC  
 ESR902: 340 mA @ 12 VDC  
 ESR904: 326mA @ 12 VDC  
 Connector: Removable Terminal Block

### MEANTIME BEFORE FAILURE (MTBF)

MTBF ESR904 = 96827.27  
 MIL 217F Parts Count Reliability  
 MTBF Calc. Method Prediction

### Ethernet

Connector: RJ-45 F  
 Data Rate: 10/100 Mbps Auto-detecting 10BaseT or 1000BaseTx  
 Protocols: TCP, IP, ARP, DHCP, Telnet, HTTP, UDP, ICMP

### Configuration

Console: RS-232 w/ VT100 Emulation  
 Telnet: HyperTerminal w/VT100 Emulation  
 ESP Manager: Compatible w/Win98, ME, 2000, 2003, XP, NT, and Vista  
 HTTP: Embedded Web Page

### Environment

Operating Temp: -14 to 176 F (-10 to 80 C)  
 Storage Temp: -4 to 185 F (-20 to 85 C)  
 Humidity: 5 to 95% Non-condensing

### Dimensions

ESR901/902: 1.75 x 6.1 x 4.1 in  
 (4.46 x 15.52 x 10.46 cm)  
 ESR904: 1.75 x 7.1 x 4.1 in  
 (4.46 x 18.03 x 10.46 cm)

Enclosure: IP 30  
 Approvals: CE, FCC