

## Industrial Ethernet Serial Servers

**Access hard-to-reach  
remote serial equipment  
as if it were local.**



## FEATURES

- » Control remote serial equipment across your Ethernet network.
- » Slim-line DIN rail box is IP30 rated for use in dirty environments.
- » Support RS-232, RS-422, and RS-485 serial interfaces.
- » Support multiple client sessions.
- » 4-screw power connector enables daisy chaining of AC or DC power to multiple servers.
- » Ideal for industrial equipment such as PLCs, drives, motor controls, and process analyzers.

## OVERVIEW

Whether serial devices are on the factory floor or in a remote location, you can now control them across your Ethernet network with BLACK BOX® Industrial Ethernet Serial Servers. Just connect the serial port of your device to the server, and then connect the server to your LAN and monitor equipment as if there were a direct serial connection. Industrial Ethernet Serial Servers work across any IP network—you can even access remote equipment via the Internet.

The servers support RS-232, RS-422 and RS-485 half- and full-duplex operation with software selectable interfaces.

The included software enables easy server management, configuration, and monitoring and supports up to eight individual client sessions. UDP mode enables you to multicast to and from multiple IP addresses.

The servers are housed in rugged metal cases, are IP30 rated, and are DIN rail mountable. They feature terminal block power connectors for industrial installations. Redundant, wide-range AC/DC power keeps applications up and running.

The servers feature autosensing 10-/100-Mbps Ethernet ports. Password security prevents unauthorized access.

## Technically Speaking

### Serial servers.

A serial server is a hardware device that enables you to connect serial devices across a network.

The primary advantage of serial servers is that they save you the cost of running separate RS-232 devices. By using a network, you can connect serial devices even over very long distances—as far as your network stretches. It's even possible to connect serial devices across the Internet. A serial server connects the remote serial device to the network, and then another serial server somewhere else on the network connects to the other serial device.

Serial servers act as virtual serial ports by providing the appropriate connectors for serial data and also by grouping serial data in both directions into Ethernet TCP/IP packets. This conversion enables you to connect serial devices across Ethernet without the need for software changes.

Because serial servers send data across a network, security is a consideration. If your network is isolated, you can get by with an inexpensive terminal server that has few or no security functions. But if you're using a terminal server to make network connections across a network that's also an Internet subnet, you should look for a terminal server that offers extensive security features.

## TECH SPECS

**Hardware Data Rate** — LAN: 10/100 Mbps;

Async Serial: 110 bps to 230 kbps

**Management** — Vlinx™ Manager, Web server, serial console, Telnet™

**Operation** — Half- and full-duplex

**Protocols** — RS-232; TCP, IP, ARP, DHCP, Telnet, HTTP, UDP, ICMP

**RS-232 Leads Supported** — TX, RX, RTS, CTS, DTR, DSR, DCD, GND

**RS-422 Leads Supported** — TX+, TX-, RX+, RX-, RTS+, RTS-, CTS+, CTS-, GND

**RS-485H Leads Supported** — DATA+, DATA-, GND

**RS-485F Leads Supported** — TX+, TX-, RX+, RX-, GND

**Speed** — Network: 10BASE-T, 100BASE-TX: 10/100 Mbps, autosensing;

Serial: 110 bps to 230.4 kbps

**Temperature Rating** — Operating: 14 to 176°F (-10 to +80°C);

Storage: -4 to +185°F (-20 to +85°C)

**CE Approval** — Yes

**Interface** — RS-232, RS-422, RS-485

**Connectors** — Serial: (1), (2), or (4) DB9 M, DTE configuration; LES401A also has (1) terminal block;

Ethernet: (1) RJ-45;

Power: (1) 4-screw terminal block

**Indicators** — LEDs: Per Unit: (1) Power, (1) Link, (1) Ready;

Per Port: (1) TX, (1) RX

**Power** — Works with an 8 VAC–24 VAC or 9 VDC–48 VDC power supply (not included);

Input Connector Type: Terminal Block: GND, AC in, AC/DC+ in, Backup DC+ in;

Power Consumption: LES401A: 320 mA @ 12 VDC;

LES402A: 340 mA @ 12 VDC;

LES404A: 360 mA @ 12 VDC

**Size** — LES401A–LES402A: 1.75"H x 6.1"W x 4.1"D

(4.5 x 15.5 x 10.5 cm);

LES404A: 1.75"H x 7.1"W x 4.1"D (4.56 x 18 x 10.5 cm)

**Weight** — LES401A–LES402A: 3 lb. (1.4 kg);

LES404A: 3.2 lb. (1.5 kg)



LES402A

| Item                               | Code    |
|------------------------------------|---------|
| Industrial Ethernet Serial Servers |         |
| 1-Port                             | LES401A |
| 2-Port                             | LES402A |
| 4-Port                             | LES404A |
| <b>You may also need...</b>        |         |
| 12-VDC DIN-Mount Power Supply      | PSD100  |