

# 4-Port Serial Expansion Box

## VK224

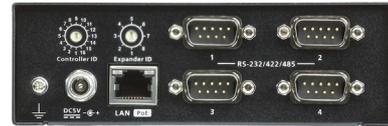
The VK224 provides Ethernet-to-serial connectivity with 4 bi-directional RS-232 / 422 / 485 serial ports. It allows users to remotely access serial devices from a PC or any system located anywhere. The complete Telnet CLI commands are fully integrated into users' commercial and industrial applications.

What's more, the VK224 serves as a flexible expansion box of the ATEN Control System, enabling users to control additional serial devices through an ATEN controller in any environments where more serial devices are required. With the advantage of Ethernet-based connection, the expansion box can be easily connected to controllers via LAN connection from a variety of locations across a network.

Front View



Rear View



## Features

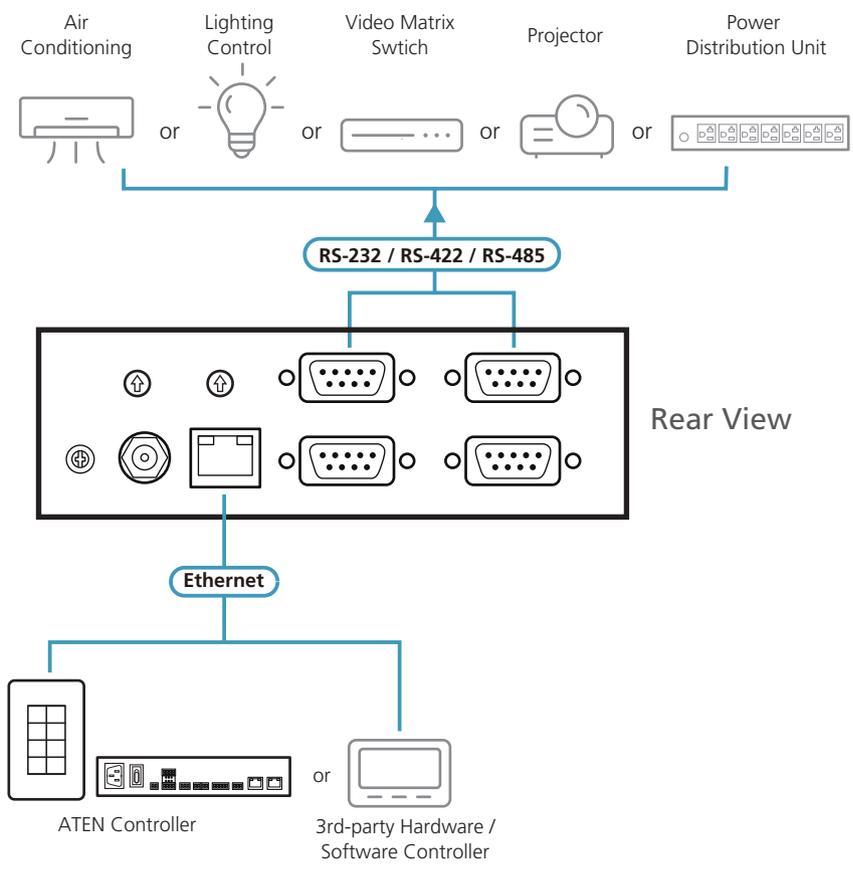
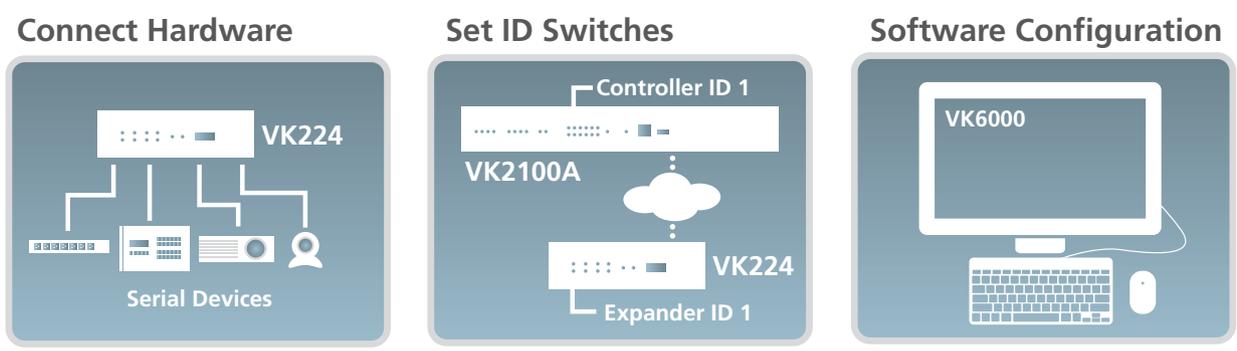
- An Ethernet-to-serial box ships with 4 bi-directional RS-232/422/485 serial ports
- Supports Power over Ethernet (PoE) or DC power supply
- Supports Modbus protocol - enables integration with Modbus devices, including TCP, RTU and its checksum data
- Supports Telnet CLI (command-line interface) mode for third-party system integration
- WebUI provides VK224 system information, including firmware upgrade
- An expansion solution for connecting more serial devices to ATEN Control System
- Flexible deployment via Ethernet connection
- Works with a connected ATEN controller with ID Switch through instant configuration

## Highlights

<p><b>PoE Single Cable Installation</b></p>	<p>The VK224 is built with PoE which supplies power through the same Ethernet cable that connects it to the LAN – eliminating the need of an extra power source and extra wiring. In addition, the VK224 can be powered via a 5 VDC power adapter.</p>
<p><b>Expansion via Ethernet</b></p>	<p>With an Ethernet-based connection, the expansion boxes easily install close to the devices you need to control – anywhere across a network to a single controller. This provides a simple, full-proof solution for you to add device ports anywhere you need them.</p>

<p><b>Supports Modbus Protocol</b></p>	<p>Modbus RTU and Modbus TCP protocols are widely used in industrial or environmental network. Modbus RTU requires CRC (Cyclic Redundancy Check) as an error check mechanism to ensure data reliability. The CRC data can be calculated inside VK224.</p>
<p><b>Telnet CLI (Command-line Interface) for 3rd Party System Integration</b></p>	<p>CLI is a text-based interface for users to enter commands. Users are able to handle system settings, sending commands and responding feedback messages via VK224's CLI support. It is the ideal solution to integrate with 3rd party controllers or software systems.</p>

## Installation Setup



## Specifications

VK224																			
<b>Interfaces</b>																			
Serial	<ul style="list-style-type: none"> <li>4 x Programmable Bi-directional RS-232 / 422 / 485 Port (4 x DB9 Male Connector, configurable via pin assignments);</li> <li><b>Baud Rate:</b> 300 to 115200 (default: 9600)</li> <li><b>Data Bit:</b> 8 (default) or 7</li> <li><b>Stop Bit:</b> 1 (default) or 2</li> <li><b>Parity:</b> None (default), Even or Odd</li> <li><b>Flow Control:</b> None (default) RTS/CTS</li> </ul>																		
	<b>Pin Assignments</b>																		
	<table border="1"> <thead> <tr> <th>RS-232</th> <th>RS-422</th> <th>RS-485</th> </tr> </thead> <tbody> <tr> <td>Pin 2: RX</td> <td>Pin 1: RX-</td> <td>Pin 3: D+</td> </tr> <tr> <td>Pin 3: TX</td> <td>Pin 2: RX+</td> <td>Pin 4: D-</td> </tr> <tr> <td>Pin 5: GND</td> <td>Pin 3: TX+</td> <td>-</td> </tr> <tr> <td>Pin 7: RTS</td> <td>Pin 4: TX-</td> <td>-</td> </tr> <tr> <td>Pin 8: CTS</td> <td>Pin 5: GND</td> <td>-</td> </tr> </tbody> </table>	RS-232	RS-422	RS-485	Pin 2: RX	Pin 1: RX-	Pin 3: D+	Pin 3: TX	Pin 2: RX+	Pin 4: D-	Pin 5: GND	Pin 3: TX+	-	Pin 7: RTS	Pin 4: TX-	-	Pin 8: CTS	Pin 5: GND	-
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Pin 8: CTS	Pin 5: GND	-																	
Ethernet	<ul style="list-style-type: none"> <li>1 x RJ-45 Female, 10/100 Base-T</li> <li>Supported Protocol: ICMP, TCP/IP, DHCP, HTTPS, SSH</li> <li>DHCP-enabled. The following default IP settings will be used if no IP is assigned within 30 seconds:  <b>IP:</b> 192.168.0.60  <b>Subnet Mask:</b> 255.255.255.0</li> </ul>																		
<b>Switches</b>																			
Controller ID	1 x 16-segment Switch																		
Expander ID	1 x 8-segment Switch																		
<b>Reset Button</b>	1 x Semi-recessed Pushbutton																		
<b>USB</b>	1 x USB Type-A (Firmware upgrade only)																		
<b>Power</b>																			
Consumption	5 VDC, 7.5 W (adapter) ; 48 VDC, 9.5 W (PoE, PoE 802.3 AF/AT compatibility)																		
Output	5 VDC, 1.2 A																		
<b>Environmental</b>																			
Operating Temperature	0 – 50 °C																		
Storage Temperature	-20 – 60 °C																		
Humidity	0 – 80% RH, Non-Condensing																		
<b>Physical Properties</b>																			
Housing	Metal																		
Weight	0.45 kg																		
Dimensions (L x W x H)	13.00 x 7.60 x 4.20 cm																		

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