

# EKI-1521/CI/I

# EKI-1522/CI/I

# EKI-1524/CI/I

1-port RS-232/422/485 Serial Device Server

2-port RS-232/422/485 Serial Device Server

4-port RS-232/422/485 Serial Device Server



## Features

- Provides 2 x 10/100 Mbps Ethernet ports for LAN redundancy
- Provides COM port redirection (Virtual COM), TCP and UDP operation modes
- Supports up to 921.6 kbps, and any baud rate setting
- Allows a max. of 5 hosts to access one serial port
- Allows a max. of 16 hosts to be accessed as TCP client mode
- Built-in 15 KV ESD protection for all serial signals
- Provides multiple configuration methods including Windows utility, Telnet console, and Web Browser
- Supports 32-bit/64-bit Windows 2000/XP/Vista/7/8/8.1, Windows Server 2003/2008/2012, Windows CE 5.0, and Linux
- Automatic RS-485 data flow control
- Supports surge protection for D.C. power ports with line to line 2 KV, and line to earth 4 KV; for signal ports with 4 KV.
- 'I' models support a wide operating temperature
- 'CI' models support isolation and wide operating temperature

## Introduction

EKI-1521, EKI-1522 and EKI-1524 feature two independent Ethernet ports and MAC addresses to provide a redundant network mechanism to guarantee Ethernet network reliability. EKI-1521, EKI-1522 and EKI-1524 are serial device servers that connect RS-232/422/485 serial devices, such as PLC, meters, sensors, and barcode reader to an IP-based Ethernet LAN. They allow nearly any device with serial ports to connect and share an Ethernet network. EKI-1521, EKI-1522 and EKI-1524 provide various operations: COM port redirection (Virtual COMport), TCP Server, TCP Client and UDP mode. With COM port redirection mode, standard serial operation calls are transparently redirected to the EKI-1521, EKI-1522 and EKI-1524, guaranteeing compatibility with legacy serial devices and enabling backward compatibility with existing software. With TCP server, TCP client, and UDP modes, EKI-1521, EKI-1522 and EKI-1524 ensure the compatibility of network software that uses a standard network API. Moreover, you can make serial devices communicate with other devices peer-to-peer, without any intermediate host PCs and software programming.

## Specifications

### Ethernet Communications

- **Compatibility** IEEE 802.3, IEEE 802.3u
- **Speed** 10/100 Mbps
- **No. of Ports** 2
- **Port Connector** 8-pin RJ45
- **Protection** Built-in 1.5 KV magnetic isolation

### Serial Communications

- **Port Type** RS-232/422/485, software selectable
- **No. of Ports** EKI-1521: 1/EKI-1522: 2/EKI-1524: 4
- **Port Connector** DB9 male
- **Data Bits** 5, 6, 7, 8
- **Stop Bits** 1, 1.5, 2
- **Parity** None, Odd, Even, Space, Mark
- **Flow Control** XON/XOFF, RTS/CTS, DTR/DSR
- **Baud Rate** 50 bps ~ 921.6 kbps, any baud rate setting
- **Serial Signals** RS-232: TxD, RxD, CTS, RTS, DTR, DSR, DCD, RI, GND  
RS-422: TxD+, TxD-, RxD+, RxD-, GND  
RS-485: Data+, Data-, GND
- **Protection** Built-in 15 KV ESD for all signals  
'CI' models: 2KV Isolation for RS-422/485 signals

### Software

- **OS Support** 32-bit/64-bit Windows XP/Vista/7/8/8.1, Windows Server 2003/2008/2008 R2/2012/2012 R2, Windows CE 5.0, and Linux
- **Utility Software** Advantech EKI Device Configuration Utility
- **Operation Modes** COM port redirection mode (Virtual COM)  
TCP/UDP server (polling) mode  
TCP/UDP client (event handling) mode  
Pair connection (peer to peer) mode
- **Configuration** Windows utility, Telnet console, Web Browser
- **Management** SNMP MIB-II

### Mechanics

- **Dimensions (W x H x D)** 36.6 x 140 x 95 mm (1.44" x 5.51" x 3.74")  
EKI-1524: 48.6 x 140 x 95 mm (1.91" x 5.51" x 3.74")
- **Enclosure** Metal with solid mounting hardware
- **Mounting** DIN-rail, Wall
- **Weight** EKI-1521: 612g/EKI-1522: 620g/EKI-1524: 690g

### General

- **LED Indicators** System: Power, System Status/LAN: Speed, Link/Active  
Serial: Tx, Rx

### Power Requirements

- **Input** 12 ~ 48 V<sub>DC</sub>, redundant dual inputs
- **Connector** Terminal block
- **Consumption** EKI-1521: 5.2 W  
EKI-1522: 5.2 W  
EKI-1524: 6.3 W

### Environment

- **Operating Temperature** EKI-1521/EKI-1522/EKI-1524: -10 ~ 60°C (-14 ~ 140°F)  
'CI & I' models: -40 ~ 70°C (-40 ~ 158°F)
- **Storage Temperature** -40 ~ 85°C (-40 ~ 185°F)
- **Operating Humidity** 5 ~ 95% RH

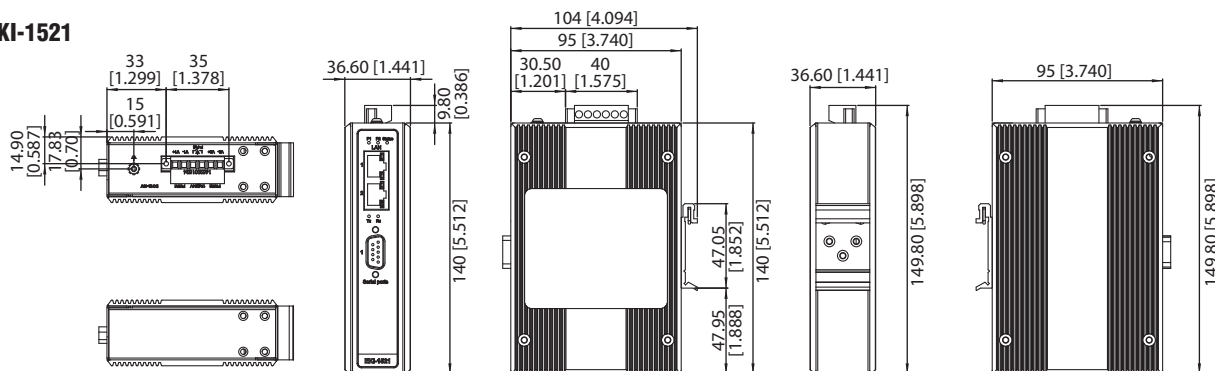
### Regulatory Approvals

- **EMC** CE, FCC Part 15 Subpart B (Class A)

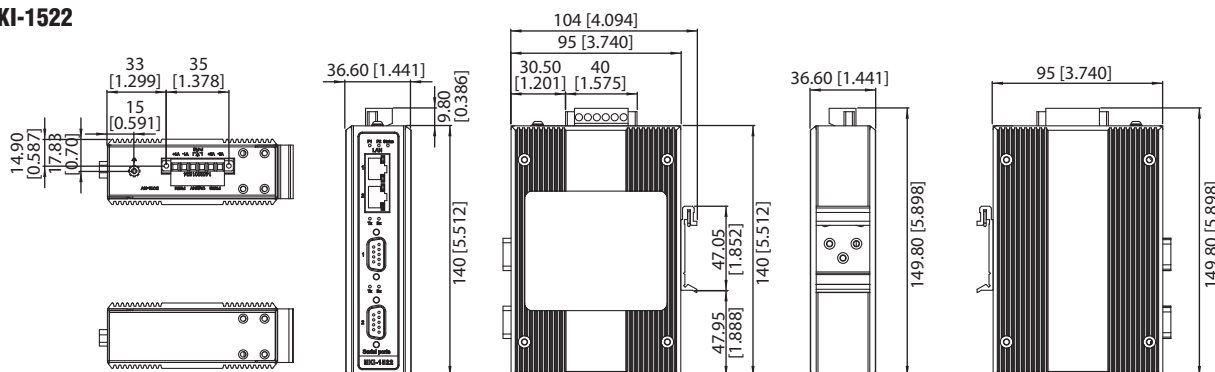
## Dimensions

Unit: mm [inch]

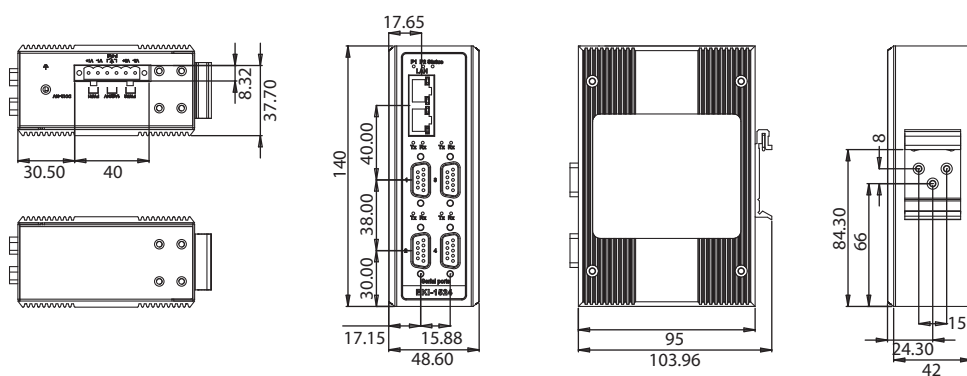
### EKI-1521



### EKI-1522



### EKI-1524



**Panel Cut-out Dimensions: 104 x 140 x 36.6 mm (4.094" x 5.512" x 1.441")**

## Ordering Information

- |                    |  |                     |  |
|--------------------|--|---------------------|--|
| ▪ <b>EKI-1521</b>  | 1-port RS-232/422/485 Serial Device Server                                 | ▪ <b>EKI-1521CI</b> | 1-port RS-422/485 Serial Device Server with wide operation temperature and isolation |
| ▪ <b>EKI-1522</b>  | 2-port RS-232/422/485 Serial Device Server                                 | ▪ <b>EKI-1522CI</b> | 2-port RS-422/485 Serial Device Server with wide operation temperature and isolation |
| ▪ <b>EKI-1524</b>  | 4-port RS-232/422/485 Serial Device Server                                 | ▪ <b>EKI-1524CI</b> | 4-port RS-422/485 Serial Device Server with wide operation temperature and isolation |
| ▪ <b>EKI-1521I</b> | 1-port RS-232/422/485 Serial Device Server with wide operating temperature | ▪ <b>OPT1-DB9</b>   | D-Sub9 to Terminal Converter   |
| ▪ <b>EKI-1522I</b> | 2-port RS-232/422/485 Serial Device Server with wide operating temperature |                     |  |
| ▪ <b>EKI-1524I</b> | 4-port RS-232/422/485 Serial Device Server with wide operating temperature |                     |  |