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

EKI-1521   EKI-1522   EKI-1524

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_{DC}, 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)
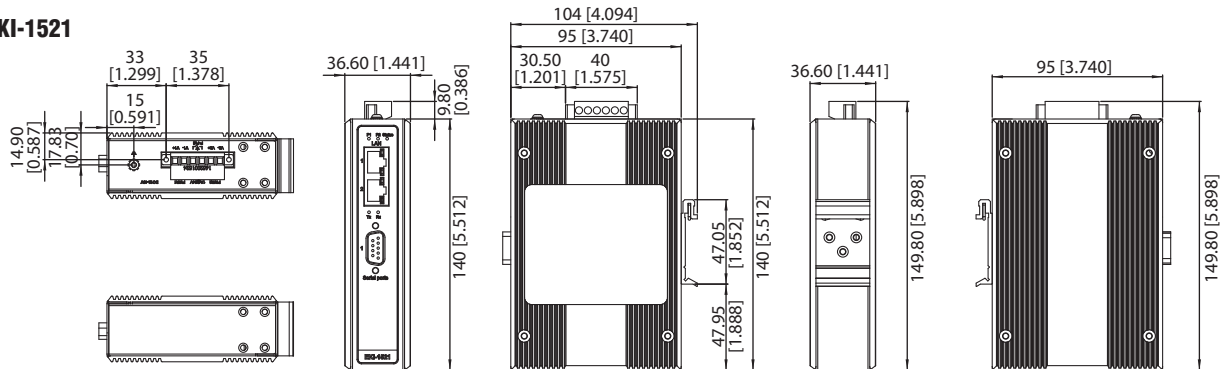- **Operating Humidity**   5 ~ 95% RH

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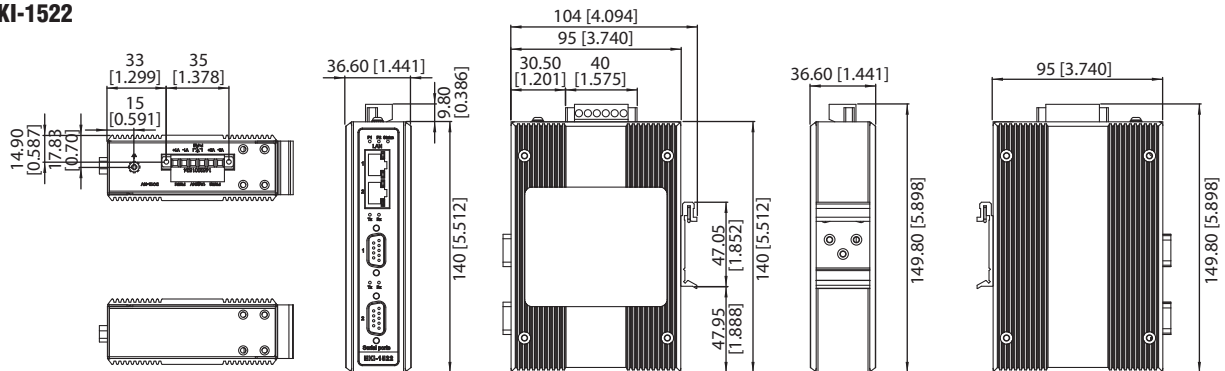
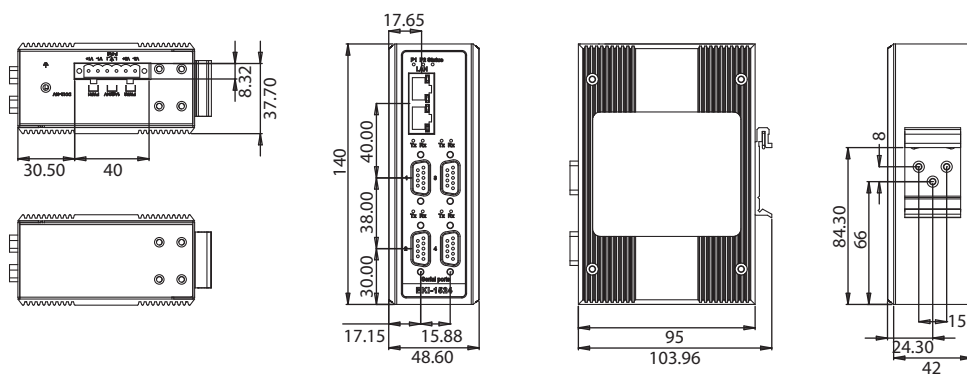- **EMC**   CE, FCC Part 15 Subpart B (Class A)

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

- **EKI-1521** — 1-port RS-232/422/485 Serial Device Server
- **EKI-1522** — 2-port RS-232/422/485 Serial Device Server
- **EKI-1524** — 4-port RS-232/422/485 Serial Device Server
- **EKI-1521I** — 1-port RS-232/422/485 Serial Device Server with wide operating temperature
- **EKI-1522I** — 2-port RS-232/422/485 Serial Device Server with wide operating temperature
- **EKI-1524I** — 4-port RS-232/422/485 Serial Device Server with wide operating temperature

- **EKI-1521CI** — 1-port RS-422/485 Serial Device Server with wide operation temperature and isolation
- **EKI-1522CI** — 2-port RS-422/485 Serial Device Server with wide operation temperature and isolation
- **EKI-1524CI** — 4-port RS-422/485 Serial Device Server with wide operation temperature and isolation
- **OPT1-DB9** — D-Sub9 to Terminal Converter