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-1521CI-DE | EKI-1522 | EKI-1522CI-DE | EKI-1524

Features

- 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 maximum of 5 hosts to access one serial port
- Allows a maximum of 16 hosts to be accessed in TCP client mode
- Built-in 15-kV ESD protection for all serial signals
- Provides rich configuration methods including Windows utility, Telnet console, and web browser
- Supports Windows XP/7/8.1/10, Windows Server 2003/2008/2012/2016/2019, and Linux
- Automatic RS-485 direction control
- Supports line-to-line (2 kV) and line-to-ground (4 kV) surge protection
- "I" models support a wide operating temperature
- "CI" models support isolation and a wide operating temperature

Introduction

The EKI-1521, EKI-1522, and EKI-1524 feature two independent Ethernet ports and MAC addresses to provide a redundant network mechanism that guarantees Ethernet network reliability. These serial device servers are designed to connect RS-232/422/485 serial devices such as PLC, meters, sensors, and barcode readers to an IP-based Ethernet LAN. They allow nearly any device with serial ports to connect and share an Ethernet network, while also providing various operations such as 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 servers, guaranteeing compatibility with legacy serial devices and enabling backward-compatibility with existing software. With TCP server, TCP client, and UDP modes, the EKI- 1521, EKI-1522, and EKI-1524 ensure compatibility in network software using a standard network API. Moreover, serial devices can be made communicate with other devices via peer-to-peer, thus eliminating the need for an intermediate host PC 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 2.25 k V_{DC} magnetic isolation

Serial Communications

Port Type	RS-232/422/485-2w/485-4w, software selectable (EKI-1524CI-CE supports RS-422/485 only)
No. of Ports	EKI-1521: 1/EKI-1522: 2/EKI-1524: 4
Port Connector	DB9 male EKI-1521CI-DE; EKI-1522CI-DE also provide Terminal Block
Data Bits	5, 6, 7, 8
Stop Bits	1, 1.5, 2
Parity	None, Odd, Even, Space, Mark
Flow Control	XON/XOFF, RTS/CTS
Baud Rate	50 bps ~ 921.6 kbps, any baud rate setting
Serial Signals	**[CE Version]** RS-232: TxD, RxD, CTS, RTS, DCD, RI, GND, DTR, DSR RS-422: TxD+, TxD-, RxD+, RxD-, GND RS-485 2-wire: Data+, Data-, GND **[DE Version]** DB9: RS-232 isolation: TxD, RxD, CTS, RTS, GND RS-232: TxD, RxD, CTS, RTS, DCD, RI, GND, DTR, DSR Terminal Block (From top to bottom): RS-422: GND, RxD-, RxD+, TxD+, TxD- RS-485 2-wire: GND, NC, NC, TxD+, TxD- RS-485 4-wire: GND, RxD-, RxD+, TxD+, TxD-
Protection	Built-in 15 KV ESD for all signals

Software

Driver Support	Windows XP/7/8.1/10, Windows Server 2003/2008/2012/2016/2019, and Linux
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
Protocols	ICMP, IP, TCP, UDP, BOOTP, DHCP, Auto IP, SNMP, HTTP, DNS, SMTP, ARP, NTP

Mechanics

Dimensions (W x H x D)	EKI-1521/I-CE; EKI-1521CI-DE; EKI-1522/I-CE; EKI-1522CI-DE: 30 x 140 x 95 mm (1.18" x 5.51" x 3.74") EKI-1524/CI/I-CE: 42 x 140 x 95 mm (1.65" x 5.51" x 3.74")
Enclosure	Metal with solid mounting hardware
Mounting	DIN-rail, Wall
Weight	EKI-1521/I-CE; EKI-1522/I-CE: 0.432Kg EKI-1521CI-DE; EKI-1522CI-DE: 0.45kg EKI-1524/CI/I-CE: 0.537Kg
IP Rating	IP30

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: 3.2 W EKI-1522: 3.2 W EKI-1524: 4.1 W

Environment

Operating Temperature	EKI-1521/EKI-1522/EKI-1524: -10 ~ 60 °C (14 ~ 140 °F) 'CI & I' models: -40 ~ 80 °C (-40 ~ 176 °F)
Storage Temperature	-40 ~ 85 °C (-40 ~ 185 °F)
Operating Humidity	10 ~ 95% RH

Regulatory Approvals

EMC	CE, FCC Part 15 Subpart B (Class A)
Hazardous location	UL/cUL (Class I, Division 2, Groups A, B, C and D), ATEX (Zone 2 Ex nA nC IIC T4 Gc)

Port to Port Isolation ('CI' models)

Serial to Ethernet	2 kV
Serial to Power	2 kV
Ethernet to Power	1.5 kV

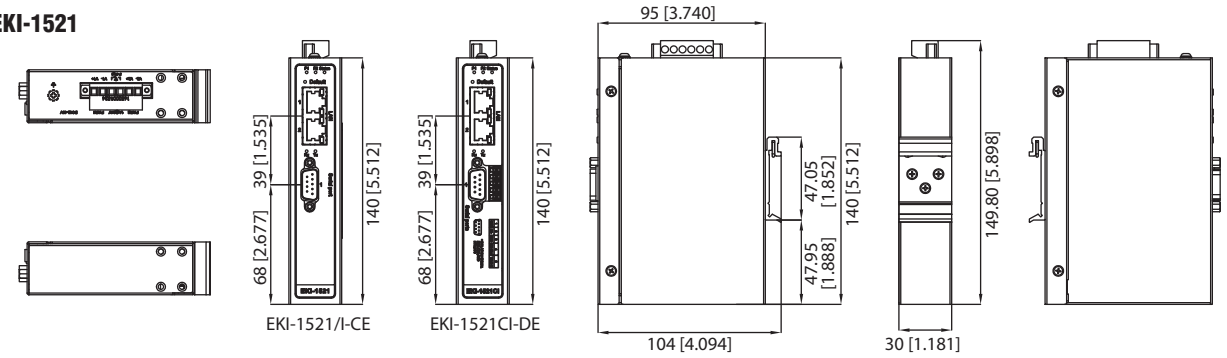
All product specifications are subject to change without notice.

Last updated: 29-Jan-2024

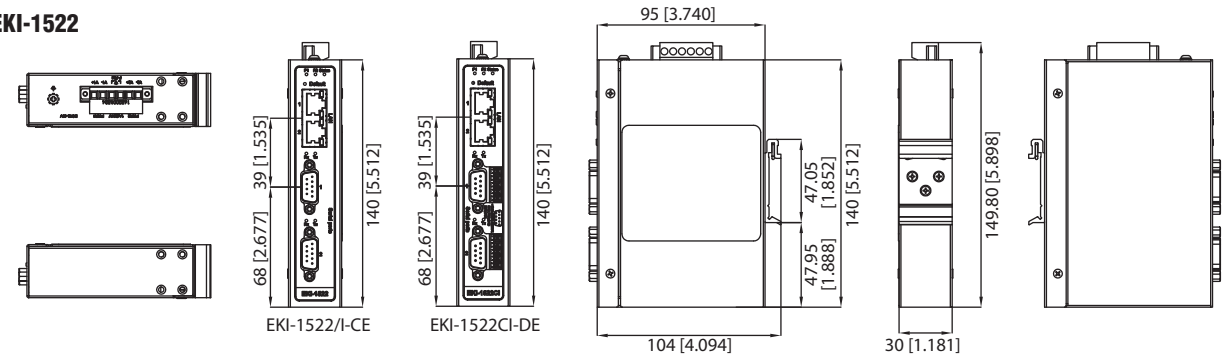
Dimensions

Unit: mm [inch]

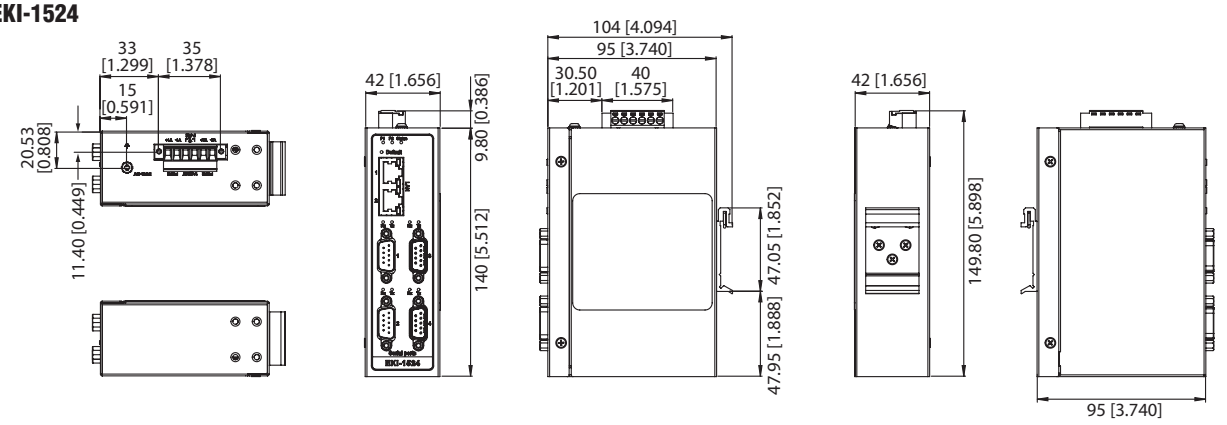
EKI-1521



EKI-1522



EKI-1524



Ordering Information

- **EKI-1521-CE** 1-port RS-232/422/485-2w/485-4w Serial Device Server
- **EKI-1522-CE** 2-port RS-232/422/485-2w/485-4w Serial Device Server
- **EKI-1524-CE** 4-port RS-232/422/485-2w/485-4w Serial Device Server
- **EKI-1521I-CE** 1-port RS-232/422/485-2w/485-4w Serial Device Server with wide operating temperature
- **EKI-1522I-CE** 2-port RS-232/422/485-2w/485-4w Serial Device Server with wide operating temperature
- **EKI-1524I-CE** 4-port RS-232/422/485-2w/485-4w Serial Device Server with wide operating temperature
- **EKI-1521CI-DE** 1-port RS-232/422/485-2w/485-4w Serial Device Server with wide operation temperature and isolation
- **EKI-1522CI-DE** 2-port RS-232/422/485-2w/485-4w Serial Device Server with wide operation temperature and isolation
- **EKI-1524CI-CE** 4-port RS-422/485 Serial Device Server with wide operation temperature and isolation
- **OPT1-DB9** D-Sub9 to Terminal Converter