

EKI-1221R EKI-1222R EKI-1224R

1-port Modbus Gateway/Router

2-port Modbus Gateway/Router

4-port Modbus Gateway/Router



Features

- Integrates Modbus TCP and Modbus RTU/ASCII networks
- Supports up to 921.6 kbps and any baud rate setting
- Supports up to 16 connections per serial port under 32 sessions under Modbus slave mode
- Provides high secure access tunnel with VPN
- Software-selectable RS-232/422/485 communication
- Mountable via DIN rail and wall mount
- Built-in 15 kV ESD protection for all serial signals
- Automatic RS-485 data flow control
- Supports surge protection for DC power ports with line-to-line (2 kV) and line-to-earth (4 kV) for signal ports with 4 kV

Introduction

The EKI-1200R series Modbus Router are bi-directional gateways for integrating new and existing Modbus/RTU and Modbus/ASCII serial devices to newer TCP/IP networked-based devices. The EKI-1200R series Modbus Router can remote control and monitor local Modbus devices for Industrial IOT Applications. And it provides high secure access tunnel with VPN to protect domestic data.

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, software selectable
- **No. of Ports** EKI-1221R: 1
EKI-1222R: 2
EKI-1224R: 4
- **Port Connector** DB9 male
- **Data Bits** 5, 6, 7, 8
- **Stop Bits** 1, 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** RS-232: TxD, RxD, CTS, RTS, DCD, RI, GND
RS-422: TxD+, TxD-, RxD+, RxD-, GND
RS-485: Data+, Data-, GND
- **Protection** 15 KV ESD for all signals

Software

- **OS Support** Windows XP/7/8.1/10, Windows Server 2003/2008/2012/2016/2019, and Linux
- **Utility Software** Advantech EKI Device Configuration Utility
- **Operation Modes** Modbus RTU Slave mode
Modbus ASCII Slave mode
- **Configuration** Windows Utility, Telnet Console, Web Browser
- **Protocols** ICMP, IP, TCP, UDP, BOOTP, DHCP, Auto IP, SNMP, HTTP, DNS, SMTP, ARP, NTP

General

- **LED Indicators** System: Power, System Status
LAN: Speed, Link/Active
Serial: Tx, Rx
- **Reboot Trigger** Built-in WDT (watchdog timer)

Mechanics

- **Dimensions (W x H x D)** EKI-1221R/1222R: 30 x 140 x 95 mm (1.18" x 5.51" x 3.74")
EKI-1224R: 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-1221R: 0.432Kg
EKI-1222R: 0.432Kg
EKI-1224R: 0.537Kg

Power Requirements

- **Power Input** 12 ~ 48 V_{DC}, redundant dual inputs
- **Power Connector** Terminal block
- **Power Consumption** EKI-1221R: 3.2 W
EKI-1222R: 3.2 W
EKI-1224R: 4.1 W

Environment

- **Operating Temperature** -10 ~ 60 °C (14 ~ 140 °F)
- **Storage Temperature** -40 ~ 85 °C (-40 ~ 185 °F)
- **Operating Humidity** 10 ~ 95% RH

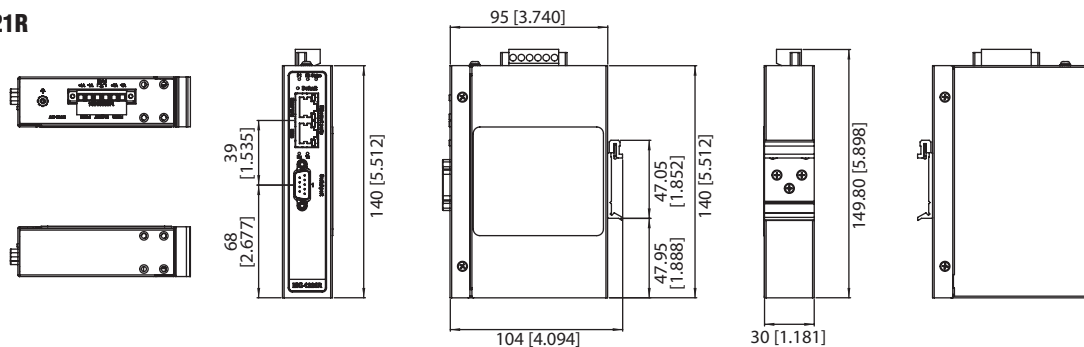
Regulatory Approvals

- **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)

Dimensions

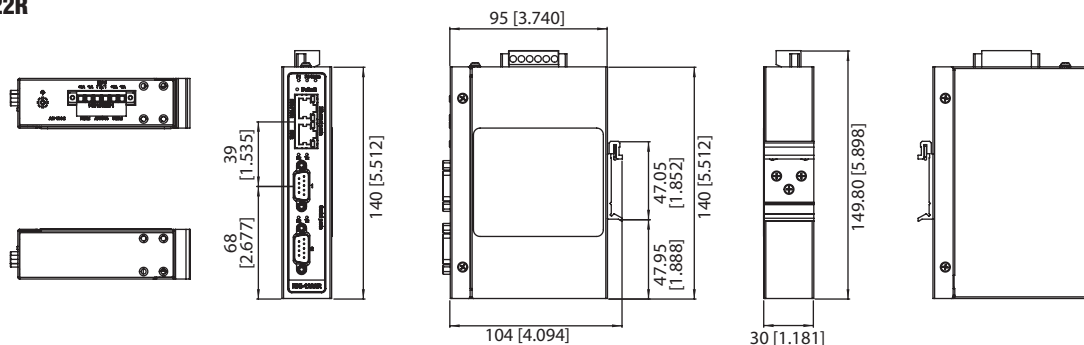
Unit: mm

EKI-1221R



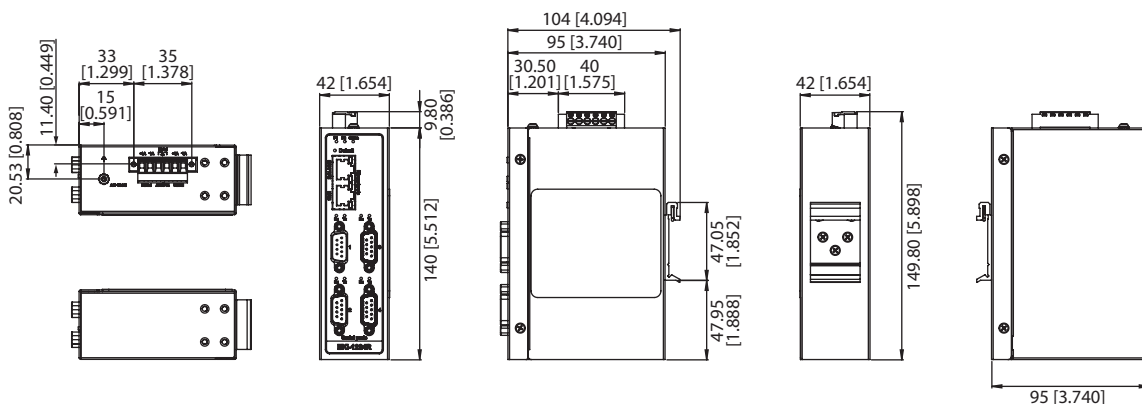
Panel Cut-out Dimensions: 95 x 140 x 30 mm (3.74" x 5.512" x 1.181")

EKI-1222R



Panel Cut-out Dimensions: 95 x 140 x 30 mm (3.74" x 5.512" x 1.181")

EKI-1224R



Panel Cut-out Dimensions: 95 x 140 x 42 mm (3.74" x 5.512" x 1.654")

Ordering Information

- **EKI-1221R** 1-port Modbus Gateway/Router
- **EKI-1222R** 2-port Modbus Gateway/Router
- **EKI-1224R** 4-port Modbus Gateway/Router
- **OPT1-DB9** D-Sub9 to Terminal Converter

Mouser Electronics

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