EKI-1242EIMS EKI-1242IEIMS

Modbus RTU/TCP to Ethernet/IP Fieldbus Gateway



Features

- Supports dual power input for power redundancy
- Seamlessly integrate Modbus RTU/TCP and Ethernet/IP communication protocols
- Modbus master mode supports up to 64 connections
- Mountable via DIN rail and wall mount
- Designed for protocol extensibility and adaption
- Built-in real-time diagnostics to increase device management efficiency
- "I" models support a wide operating temperature



Introduction

The EKI-1242EIMS industrial protocol gateway provides seamless communication between Fieldbus and Ethernet devices, supporting a range of protocols. Integrating new and existing Modbus TCP devices to PROFINET networks, this gateway can collect data and perform data exchange between Modbus TCP and PROFINET. Simple and cost-effective, the EKI-1242EIMS brings the advantage of fast I/O data transfer between devices while delivering high performance with protocol extensibility and adaptation.

Specifications

Ethernet Communication

Protocols
EtherNet/IP, Modbus TCP

Number of Ports

Speed 10/100 Mbps, Auto MDI/MDIX

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

Protocol Modbus RTU
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
Baud Rate 50 bps ~ 921.6 kbps

• Serial Signals RS-232: TxD, RxD, CTS, RTS, DCD, RI, GND

RS-422: TxD+, TxD-, RxD+, RxD-, GND

RS-485: Data+, Data-, GND

Software

Modbus RTU/TCP

Mode Master

Functions Support 1, 2, 3, 4, 5, 6, 15, 16, 23 Max. Number of Connections 64 connections

EtherNet/IP

Class Adapter

Max. Number of Connections 32 explicit messaging, 5 implicit messaging

Max. Total I/O Data Size Input: 496 bytes Output: 496 bytes

General

• **LED Indicators** System: power, system status, protocol status

LAN: speed, link/active, error

Reboot Trigger
Built-in WDT

MicroSD Card
Configuration backup and restore

Mechanics

Dimensions (W x H x D) 42 x 140 x 95 mm (1.66" x 5.52" x 3.75")
Enclosure Metal with solid mounting hardware

Mounting DIN rail, wallWeight 0.497 Kg

Power Requirements

Power Input
12 ~ 48 V_{DC}, redundant dual inputs

Power Connector Terminal blockPower Consumption 5.2 W

Environment

• Operating Temperature $-10 \sim 60 \,^{\circ}\text{C} \, (14 \sim 140 \,^{\circ}\text{F})$

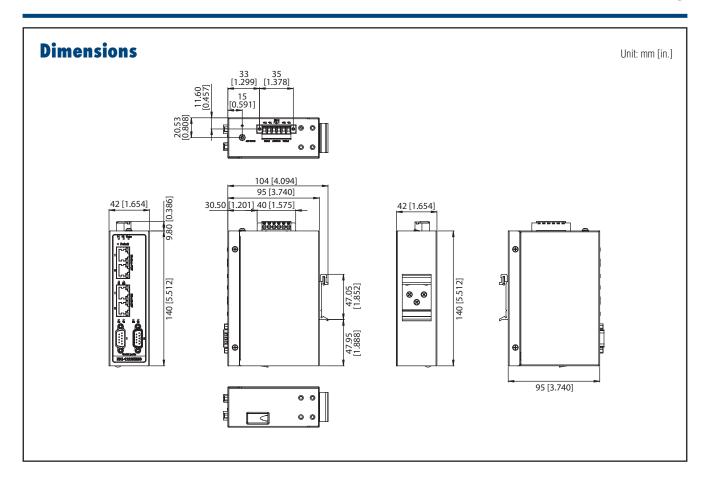
"I" models: -40 ~ 75 °C (-40 ~ 167 °F)

• Storage Temperature $-40 \sim 85 \,^{\circ}\text{C} \, (-40 \sim 185 \,^{\circ}\text{F})$

■ Operating Humidity 10 ~ 95% RH

Regulatory Approvals

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



Ordering Information

- EKI-1242EIMS
- EKI-1242IEIMS
- Modbus RTU/TCP to EtherNet/IP Fieldbus Gateway Modbus RTU/TCP to EtherNet/IP Fieldbus Gateway with Wide Operating Temperature