

EKI-1242ECMS EKI-1242IECMS

Modbus RTU/TCP to EtherCAT Fieldbus Gateway



Features

- Supports dual power input for power redundancy
- Seamlessly integrate Modbus RTU/TCP and EtherCAT communication
- Modbus Master mode supports 64 connections
- Mounts on DIN-rail and Wall mount
- Designed for protocol extensibility and adaptation
- Built-in real time diagnostic to increase highly efficiency of device management
- 'I' models support a wide operating temperature

Introduction

The EKI-1242ECMS Industrial Fieldbus gateway provides seamless communication between Fieldbus and Industrial Ethernet and supports different protocol devices integrating new and existing Modbus RTU/TCP devices with EtherCAT networks. EKI-1242ECMS is a simple and cost-effective way to bring the advantage of fast I/O data transfers between devices.

Specifications

Ethernet Communication

- **Protocols** EtherCAT, Modbus TCP
- **Number of Ports** 4
- **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** 2
- **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
- **EtherCAT**
 - Type Slave
 - Max. Total I/O Data Size (SDO&PDO objects)
 - Input 512 bytes
 - Output 512 bytes
 - Fmmu Channel 4

General

- **LED Indicators** System: Power, System Status, Protocol status
LAN: Speed, Link/Active, Error
- **Reboot Trigger** Built-in WDT (watchdog timer)
- **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, Wall
- **Weight** 0.592 Kg

Power Requirements

- **Power Input** 12 ~ 48 V_{DC}, redundant dual inputs
- **Power Connector** Terminal block
- **Power Consumption** 5.2 W

Environment

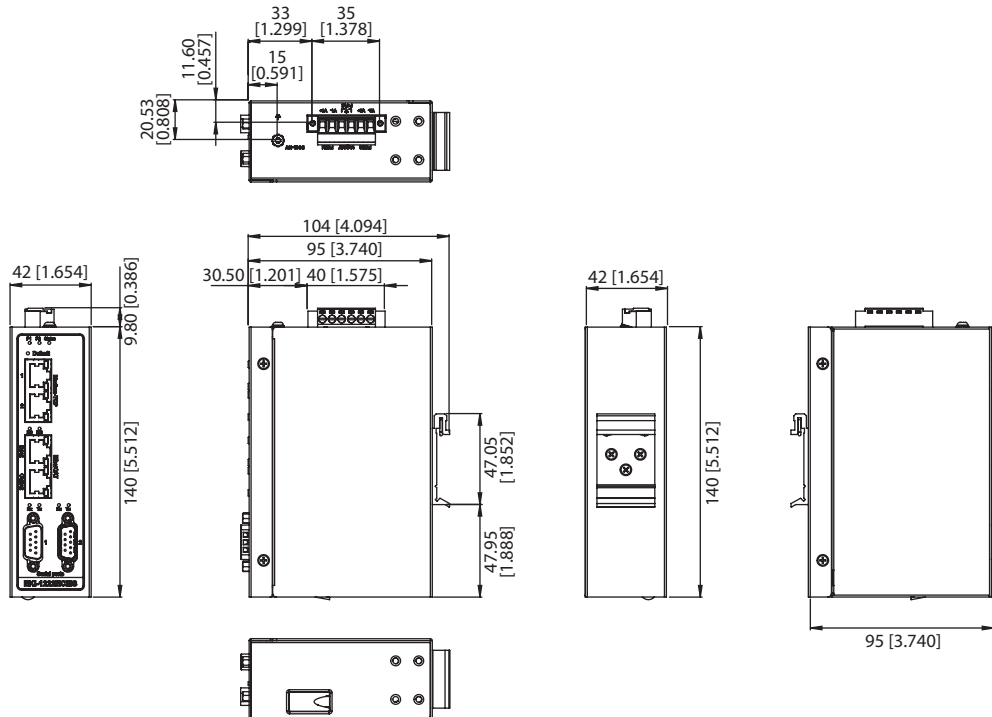
- **Operating Temperature** -10 ~ 60 °C (14 ~ 140 °F)
'I' models: -40 ~ 75 °C (-40 ~ 167 °F)
- **Storage Temperature** -40 ~ 85 °C (-40 ~ 185 °F)
- **Operating Humidity** 10 ~ 95% RH

Regulatory Approvals

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

Dimensions

Unit: mm [inch]



Ordering Information

- **EKI-1242ECMS** Modbus RTU/TCP to EtherCAT Fieldbus Gateway
- **EKI-1242IECMS** Modbus RTU/TCP to EtherCAT Protocol Gateway with wide operating temperature

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