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 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 enhance device management efficiency
- "I" models support a wide operating temperature

Introduction

The EKI-1242ECMS industrial fieldbus gateway provides seamless communication between Fieldbus and Ethernet devices with its support for different protocol devices, thereby being capable of integrating new and existing Modbus RTU/TCP devices into EtherCAT networks. The EKI-1242ECMS is a simple and cost-effective way to bring the advantage of fast I/O data transfer 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
- **EtherCAT**
  Type   Slave
- **Max. Total I/O Data Size (SDO&PDO objects)**
  Input   512 bytes
  Output   512 bytes
  FFMMU Channels   4

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, wall
- **Weight**   0.497 Kg

Power Requirements

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

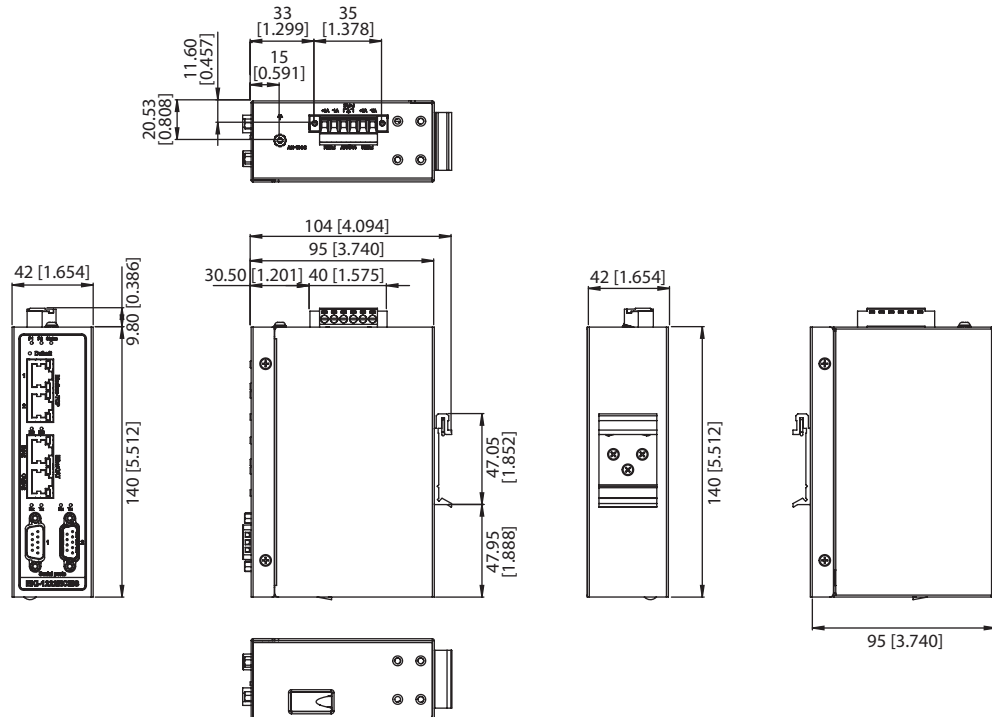### Environment

- **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)

ADVANTECH   **Industrial Wireless and Protocol Gateway Solutions**

All product specifications are subject to change without notice.   Last updated: 17-Jan-2019

Dimensions

Unit: mm [in.]

Ordering Information

- **EKI-1242ECMS**   Modbus RTU/TCP to EtherCAT Fieldbus Gateway
- **EKI-1242IECMS**   Modbus RTU/TCP to EtherCAT Fieldbus Gateway with Wide Operating Temperature

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