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 EtherNet/IP networks, this gateway can collect data and perform data exchange between Modbus TCP to EtherNet/IP. 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: 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, RTS, CTS, DC1, 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, wall
- Weight: 0.497 Kg

Power Requirements
- Power Input: 12 – 48 VDC, 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

Ordering Information

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