

EtherCAT®



ECAT-2601

Modbus/OPC UA to EtherCAT Main Device Accelerator
Ethernet Switch and Isolated RS-422/485 Ports

Features

- Built-in EtherCAT MainDevice
- Free Run mode
- Connect to SubDevice's PDO without ESI file
- Supports Third-party SubDevice
- Automatically connect to the EtherCAT SubDevice in 10 seconds after power-on
- User-defined SDO Startup Entry
- Cycle time 125us (Max.)
- Dual-stack networking (IPv4, IPv6)
- Support Modbus Server
- Supports OPC UA Server
- Built-in Web Server (HTTP/HTTPS)



Introduction

The ECAT-2601 is a proven and trusted protocol converter gateway module that allows you to seamlessly inter-connect devices between EtherCAT and Modbus/OPC UA networks. The ECAT-2600 acts as a Main Device on EtherCAT networks, allowing I/O data to be transferred between the two networks. With the built-in web server, users can set up the module, monitor and control the I/O directly through a common web browser, realising remote control of the system, which is as easy to operate as surfing the Internet on a regular basis. The ECAT-2601 provides a data exchange buffer that allows two different systems (EtherCAT and the Modbus/OPC UA) exchange data easily and faster for more diverse applications.

An OPC UA server is part of the ECAT-2601 firmware and is a secure, open and reliable mechanism for information transfer. OPC UA is used for horizontal communication between machines and vertical communication between the machine and a higher level IT system (SCADA, Cloud). All standard OPC UA clients can connect directly to the ECAT-2601 without customization, reducing the cost of integration or application software development.

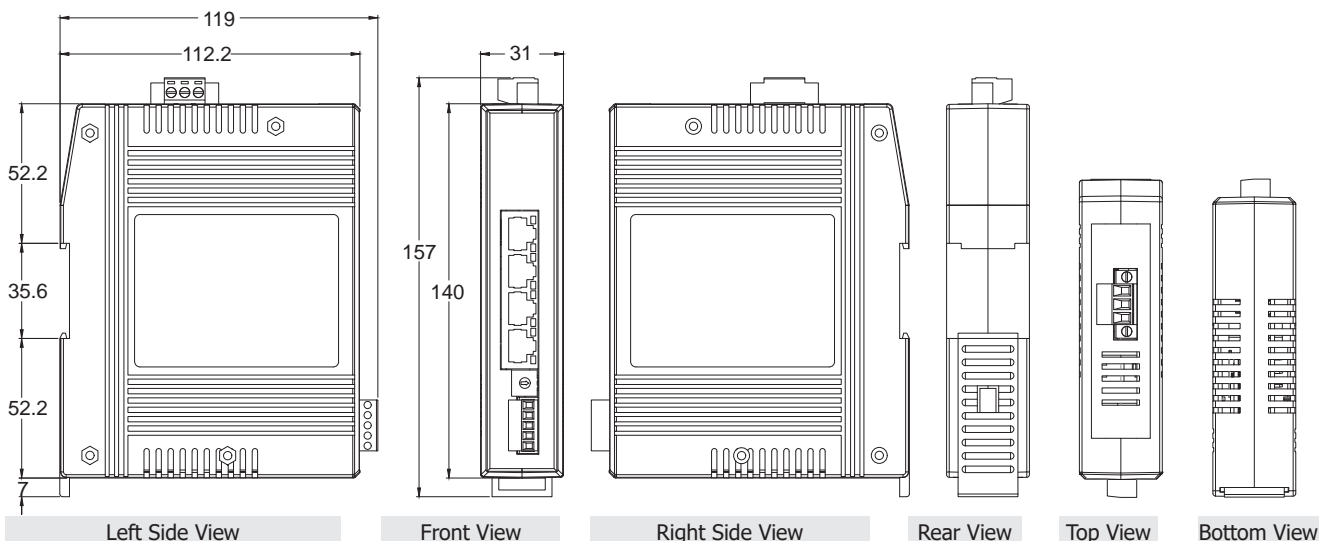
Applications



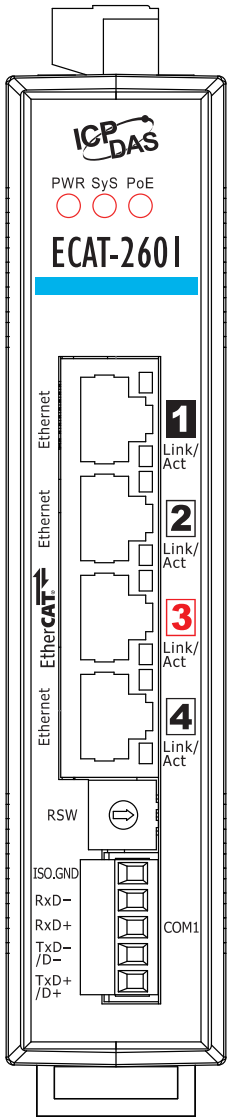
Specifications

| | |
|-----------------------------|--|
| Models | ECAT-2601 |
| Software | |
| Function | Web Interface for Configuration |
| COM Ports | |
| Ports | 1 x 422/485 |
| Protocol | Modbus RTU (Salve) |
| EtherCAT | |
| Ports | RJ-45 x 1 Distance between Stations: Max. 100 m (100BASE-TX) Data Transfer Medium: Ethernet/EtherCAT Cable (Min. CAT 5e) |
| Cycle Time | 0.125 ~ 32ms |
| Distributed Clocks | Yes |
| Ethernet | |
| Ports | RJ-45 x 3 2 x Distance between Stations: Max. 100 m (100BASE-TX) 1 x PoE (IEEE 802.3af, Class 2) |
| Protocol | Modbus TCP, Modbus TCP/TLS, Modbus UDP, OPC UA, SNMP, HTTP/HTTPS, IPv4, IPv6 |
| Power | |
| Consumption | 0.22 A @ 24 VDC |
| Powered from PoE | IEEE 802.3af, Class 2 |
| Powered from Terminal Block | +12 ~ +48 VDC |
| Mechanical | |
| Casing | Plastic |
| Dimensions (mm) | 119 x 31 x 157 (W x L x H) |
| Installation | DIN-Rail Mounting |
| Environment | |
| Operating Temperature | -25 ~ +75°C |
| Storage Temperature | -30 ~ +80°C |
| Relative Humidity | 10 ~ 90% RH, non-condensing |

Dimensions (Units: mm)



■ Apparances



RJ-45 Interface

| Terminal No. | Pin Assignment |
|--------------|----------------|
| 01 | PoE |
| 02 | Ethernet |
| 03 | EtherCAT |
| 04 | Ethernet |

COM1 (Modbus RTU)

| Terminal No. | Pin Assignment |
|--------------|----------------|
| 05 | ISO.GND1 |
| 04 | RxD1- |
| 03 | RxD1+ |
| 02 | TxD1-/D1- |
| 01 | TxD1+/D1+ |

■ Ordering Information

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|---------------------|--|
| ECAT-2601 CR | Modbus/OPC UA to EtherCAT Main Device Accelerator (RoHS) |
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