

EtherCAT®



ECAT-2601

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

Features

- Built-in EtherCAT MainDevice
- Supports Free Run mode
- Connects to SubDevice PDO without requiring an ESI file
- Supports third-party EtherCAT SubDevices
- Automatically connects to EtherCAT SubDevices within 10 seconds after power-on
- Supports user-defined SDO startup entries
- Minimum cycle time: 125us
- Supports Modbus Server
- Supports OPC UA Server
- Built-in Web Server (HTTP/HTTPS)



Introduction

The ECAT-2601 is a proven and reliable protocol converter gateway module that enables seamless connectivity between EtherCAT and Modbus/OPC UA networks. Acting as an EtherCAT MainDevice, the ECAT-2601 allows I/O data to be exchanged between the two networks efficiently. It provides a data exchange buffer that enables EtherCAT and Modbus/OPC UA systems to exchange data quickly and easily, supporting a wide range of industrial automation applications.

An OPC UA Server is integrated into the ECAT-2601 firmware, providing a secure, open and reliable mechanism for information exchange. OPC UA supports both horizontal communication between machines and vertical communication between machine and higher-level IT systems, such as SCADA systems, and Cloud platforms. Standard OPC UA clients can connect directly to the ECAT-2601 without any customization, reducing system integration complexity and application development costs.

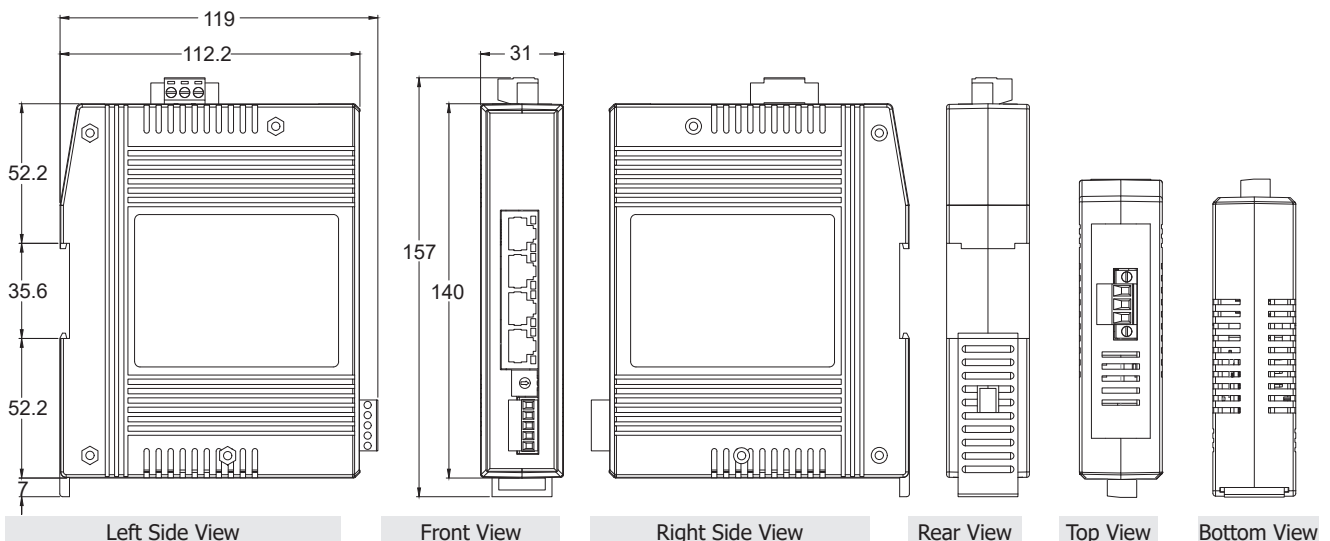
Applications



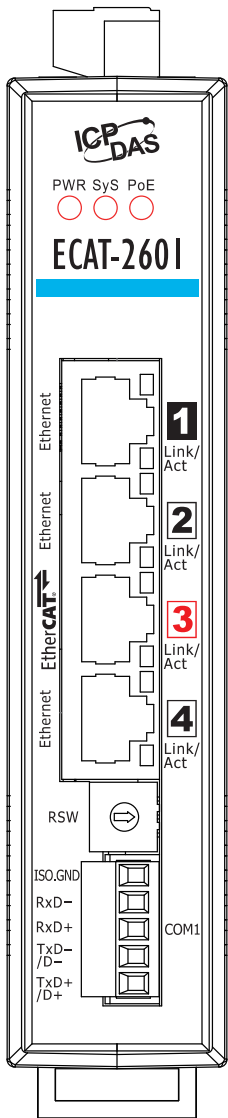
Specifications

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

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