ICP Electronics
Australia Pty Ltd
TEL: 02 9457 6011
sales@icp-australia.com.au
www.icp-australia.com.au

ECAT-2060

EtherCAT Slave I/O Module with Isolated 6-ch DI and 6-ch Relay DO

Features

- On the fly processing: EtherCAT
- Powerful MCU handles efficient network traffic
- 2 x RJ-45 bus interface
- Distance between stations up to 100 m (100 BASE-TX)
- Support daisy chain connection
- EtherCAT conformance test tool verified
- Removable terminal block connector
- LED indicators for the I/O status
- Built-In Inputs and Outputs: 6 DI and 6 Relay DO
- RoHS compliant
- ESD Protection 4 KV Contact for each channel
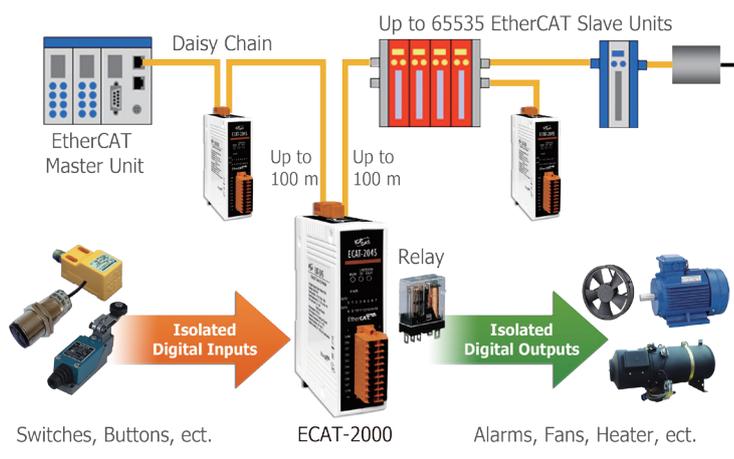
Introduction

The ECAT-2060 is an industrial slave I/O module built in 6 digital inputs and 6 relay digital outputs. It is equipped with the EtherCAT* protocol and installed by daisy chain connection that provides a more scalable system with fewer wires. Users can obtain the input and output status not only via the process data but also from its LED indicators. The ECAT-2060 has passed and verified by the conformance test tool, therefore eligible EtherCAT Master or configurator can manipulate it simply and implement your various applications easily.

∗ EtherCAT® is registered trademark and patented technology, licensed by Beckhoff Automation GmbH, Germany.
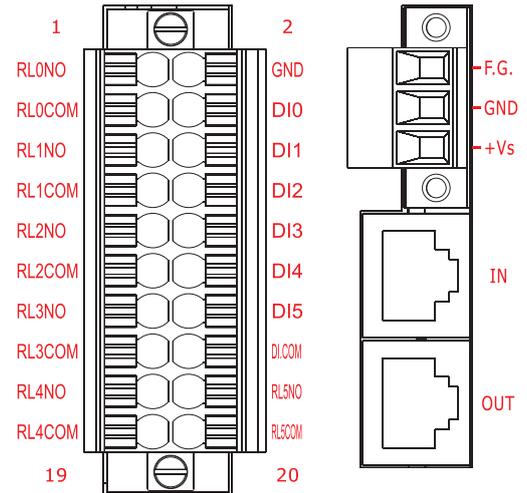
Hardware Specifications

Model	ECAT-2060	
Digital Input		
Channels	6	
Input Type	Dry (Source)	Wet (Sink/Source)
OFF Voltage Level	Open	+4 V Max.
ON Voltage Level	Close to GND	+10 V ~ +50 V
Photo-Isolation	3750 V_{DC}	
Digital Output		
Channels	6	
Output Type	Form A (SPST-NO)	
Contact Rating (Resistive Load)	5 A @ 30 V_{DC}; 5 A @125 / 250 V_{AC} (47 ~ 63 Hz)	
Operate Time	10 ms Max.	
Release Time	5 ms Max.	
Mechanical Endurance	2×10^7 Operations	
Electrical Endurance	10^5 Operations	
Communication Interface		
Connector	2 x RJ-45	
Protocol	EtherCAT	
Distance between Stations	Max. 100 m (100 BASE-TX)	
Data Transfer Medium	Ethernet/EtherCAT Cable (Min. CAT 5), Shielded	
EMS Protection		
ESD (IEC 61000-4-2)	±4 kV Contact for Each Terminal	
EFT (IEC 61000-4-4)	Signal: 1 KV Class A; Power: 1 KV Class A	
Surge (IEC 61000-4-5)	1 KV Class A	
Power		
Input Voltage Range	10 V ~ 30 V_{DC}	
Power Consumption	4 W Max.	
Mechanical		
Dimensions (H x W x D)	110 mm x 90 mm x 33 mm	
Installation	DIN-Rail Mounting	
Case Material	UL 94V-0 Housing	
Environment		
Operating Temperature	-25 ~ +75°C	
Storage Temperature	-30 ~ +80°C	
Relative Humidity	10 ~ 90% RH, Non-condensing	

■ Applications

Daisy Chain

Up to 65535 EtherCAT Slave Units

EtherCAT
Master Unit

Up to 100 m — Up to 100 m

Relay

ECAT-2000

Isolated Digital Inputs

Isolated Digital Outputs

Switches, Buttons, ect.

Alarms, Fans, Heater, ect.

■ Pin Assignments

1		2
RL0NO		GND
RL0COM		DI0
RL1NO		DI1
RL1COM		DI2
RL2NO		DI3
RL2COM		DI4
RL3NO		DI5
RL3COM		DI.COM
RL4NO		RL5NO
RL4COM		RL5COM
19		20

F.G.
GND
+Vs

IN

OUT

■ Wire Connections

Digital Input/Counter	Readback as 1	Readback as 0
Sink	+10 ~ +50 V$_{DC}$ INx 10K - + IN.COM To other channels	OPEN or <4 V$_{DC}$ INx 10K - + IN.COM To other channels
Source	+10 ~ +50 V$_{DC}$ RLx.COM AC/DC LOAD RLx.NO Relay Close To other channels	OPEN or <4 V$_{DC}$ RLx.COM AC/DC LOAD RLx.NO Relay Open To other channels

Output Type	ON State Readback as 1	OFF State Readback as 0
Relay Output	RLx.COM AC/DC LOAD RLx.NO Relay Close To other channels	RLx.COM AC/DC LOAD RLx.NO Relay Open To other channels

■ Dimensions (Units: mm)

108
90
37.2
35.6
37.2
7

33

127
110

Left Side View	Front View	Right Side View	Rear View	Top View	Bottom View
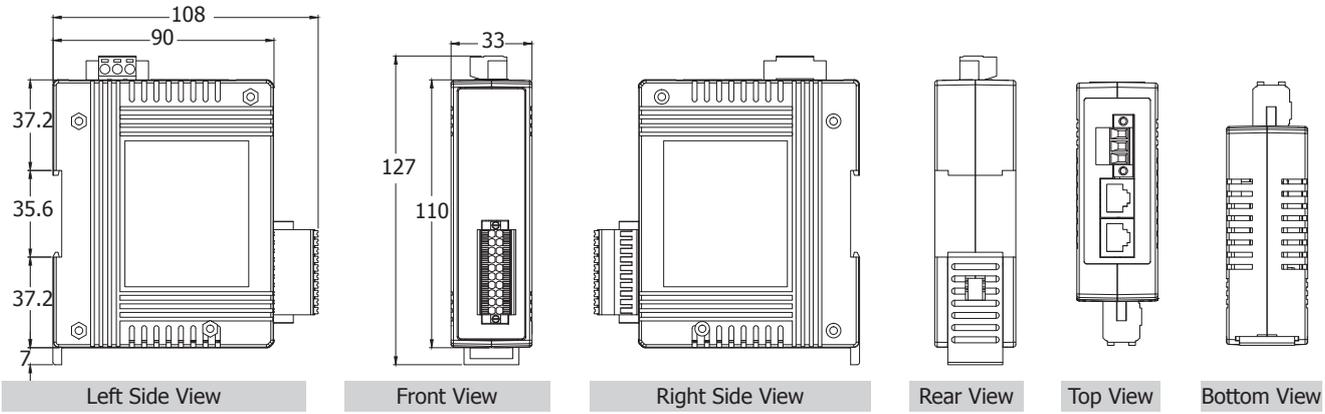
■ Ordering Information

ECAT-2060 CR	EtherCAT Slave I/O Module with Isolated 6-ch DI and 6-ch Relay DO (RoHS)