



## 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 input status
- Built-In isolated 16 digital inputs
- RoHS compliant
- ESD Protection 4 KV Contact for each channel



## Introduction

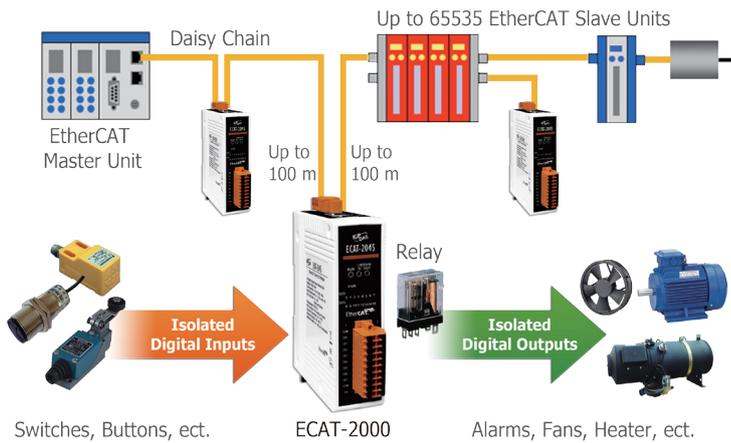
The ECAT-2051 is an industrial slave I/O module built in 16 digital inputs. It is equipped with the EtherCAT\* protocol and installed by daisy chain connection that provides a more scalable system with fewer wires. Users can obtain the input and output status not only via the process data but also from its LED indicators. The ECAT-2051 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.

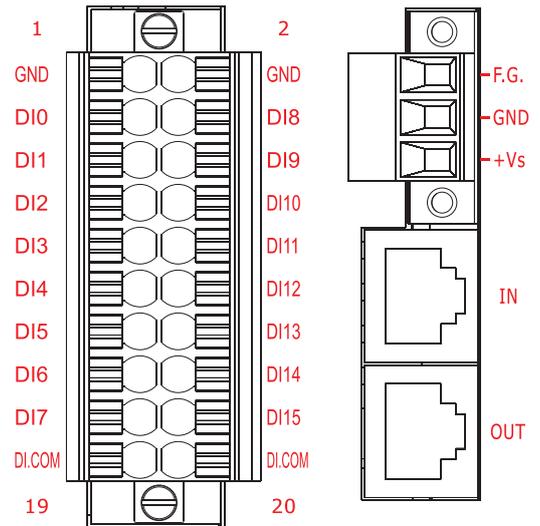
## Hardware Specifications

Model	ECAT-2051		ECAT-2053
<b>Digital Input</b>			
Channels	16		
Input Type	Wet (Sink/Source)/ Dry (Source)		Wet (Sink/Source)
Wet Contact	ON Voltage Level	+4 V Max.	+2 V Max.
	OFF Voltage Level	+10 V ~ +50 V	+3.5 V ~ +50 V
Dry Contact	ON Voltage Level	Open	-
	OFF Voltage Level	Close to GND	-
Photo-Isolation	3750 Vdc		
<b>Communication Interface</b>			
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		
<b>EMS Protection</b>			
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		
<b>Power</b>			
Input Voltage Range	10 ~ 30 Vdc		
Power Consumption	4 W Max.		
<b>Mechanical</b>			
Dimensions (H x W x D)	110 mm x 90 mm x 33 mm		
Installation	DIN-Rail Mounting		
Case Material	UL 94V-0 Housing		
<b>Environment</b>			
Operating Temperature	-25 ~ +75°C		
Storage Temperature	-30 ~ +80°C		
Relative Humidity	10 ~ 90% RH, Non-condensing		

## Applications



## Pin Assignments

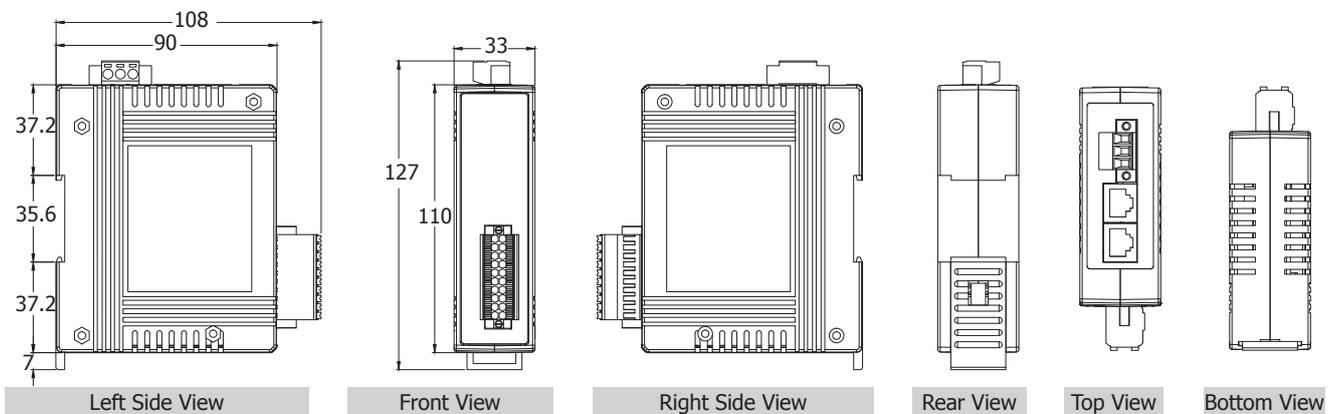


## Wire Connections

ECAT-2051 / ECAT-2053		
Digital Input/Counter	Readback as 1	Readback as 0
Sink	+10 ~ +50 VDC 	OPEN or <4 VDC 
	Source	+10 ~ +50 VDC 

ECAT-2051		
Digital Input/Counter	Readback as 1	Readback as 0
Dry	Close to GND 	Open 

## Dimensions (Units: mm)



## Ordering Information

<b>ECAT-2051 CR</b>	EtherCAT Slave I/O Module with Isolated 16-ch DI (RoHS)
<b>ECAT-2053 CR</b>	EtherCAT Slave I/O Module with Isolated 16-ch DI (RoHS)