ECAT-2051/ECAT-2053

EtherCAT Slave I/O Module with Isolated 16-ch Digital Inputs

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

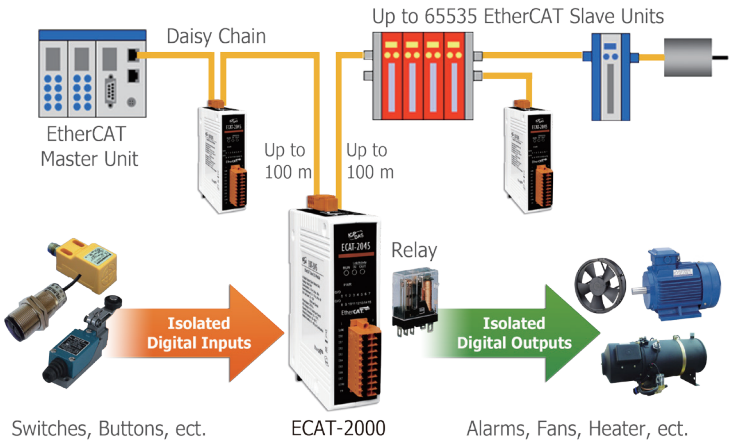
The ECAT-2051 is an industrial slave I/O module built in 16 digital inputs. It is equipped with the EtherCAT* protocol and installed by daisy chain connection that provides a more scalable system with fewer wires. Users can obtain the input and output status not only via the process data but also from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

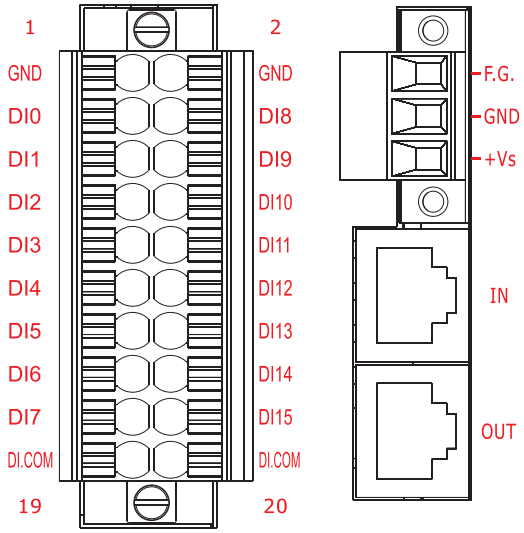
Hardware Specifications

Model		ECAT-2051	ECAT-2053
Digital Input			
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	
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 ~ 30 VDC	
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	

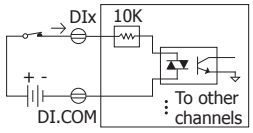
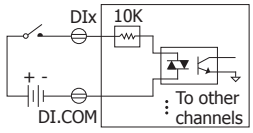
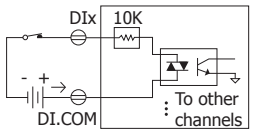
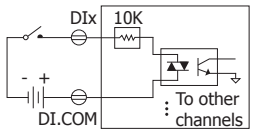
Applications

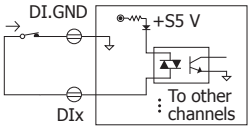
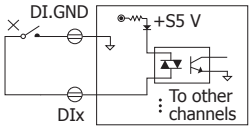


Pin Assignments

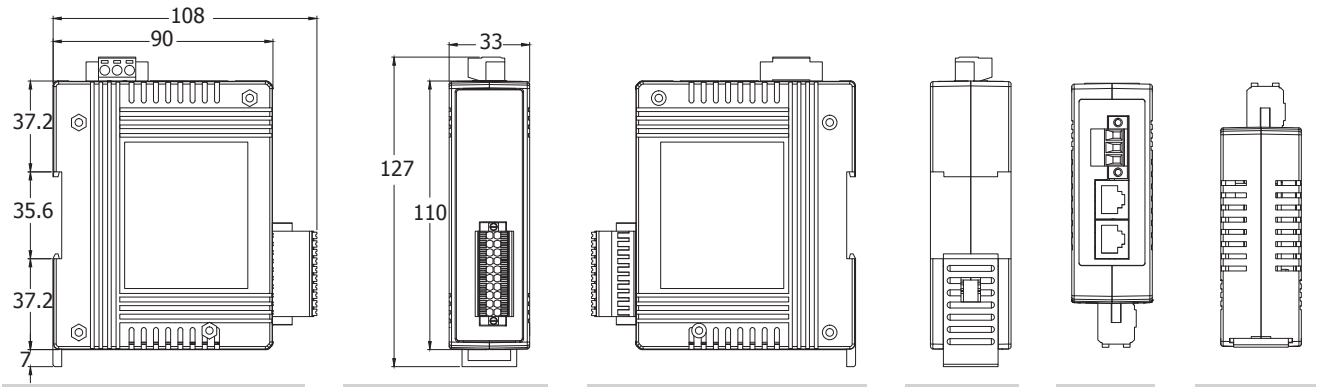


Wire Connections

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	OPEN or <4 VDC
		

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

Dimensions (Units: mm)



Left Side View | Front View | Right Side View | Rear View | Top View | Bottom View

Ordering Information

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