

EtherCAT



ECAT-2052/ECAT-2052-NPN/ECAT-2055

EtherCAT SubDevice I/O Module with Isolated 8-channel DO and 8-channel DI

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 (100BASE-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: 8 DI and 8 DO
- ESD Protection 4 kV Contact for each channel



Introduction

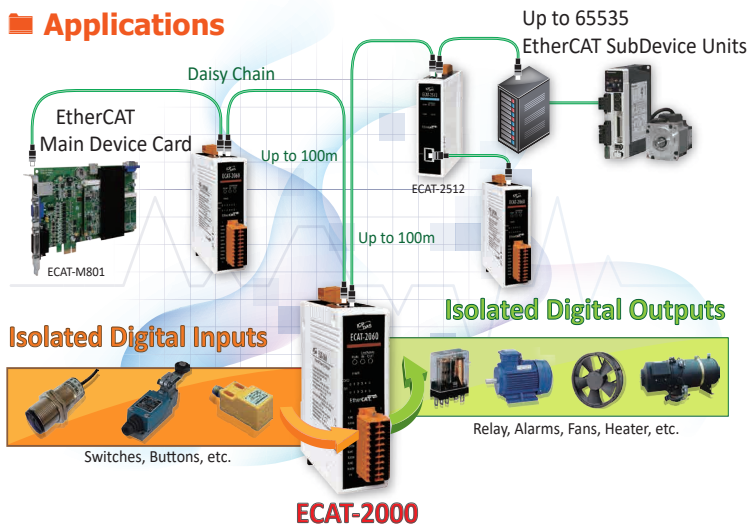
The ECAT-2055 is an industrial SubDevice I/O module built in 8 digital inputs and 8 digital outputs. It is equipped with the EtherCAT* protocol and installed by daisy chain connection that provides a more scalable system with fewer wires. Users can obtain the input and output status not only via the process data but also from its LED indicators. The ECAT-2055 has passed and verified by the conformance test tool, therefore eligible EtherCAT Main Device 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.

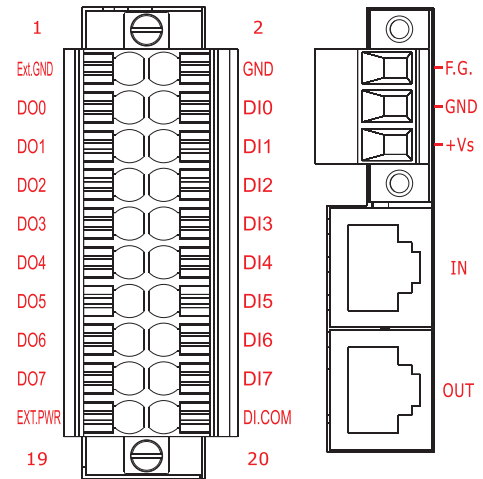
Hardware Specifications

Model	ECAT-2052	ECAT-2052-NPN	ECAT-2055
Digital Input			
Channels	8		
Input Type	Wet (Sink/Source)		Wet (Sink/Source) / Dry (Source)
Wet Contact	ON Voltage Level	+10 V ~ +50 V	+3.5 V ~ +50 V
	OFF Voltage Level	+4 V Max.	+2 V Max.
Dry Contact	ON Voltage Level	Close to GND	Close to GND
	OFF Voltage Level	Open	Open
Photo-Isolation	3750 VDC		
Digital Output			
Channels	8		
Output Type	Open Collector (Source , PNP)	Open Collector (Sink , NPN)	Open Collector (Sink , NPN)
Load Voltage	+3.5 ~ +50 V	+3.5 ~ +50 V	+3.5 ~ +50 V
Max. Load Current	100 mA per channel	100 mA per channel	700 mA/Channel
Isolation Voltage	3750 Vrms		
EtherCAT			
Ports	2 x RJ-45		
Distance Between Stations	100 m Max. (100BASE-TX)		
Data Transfer Medium	Ethernet/EtherCAT Cable (Min. CAT 5), Shielded		
Cycle Time	200 us		
Distributed Clocks	Yes		
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 VDC		
Power Consumption	4 W Max.		
Mechanical			
Dimensions (W x L x H)	33 mm x 127 mm x 108 mm		
Installation	DIN-Rail Mounting		
Casing	Plastic		
Environment			
Operating Temperature	-25 ~ +75°C		
Storage Temperature	-30 ~ +80°C		
Relative Humidity	10 ~ 90% RH, Non-condensing		

Applications



Pin Assignments



Wire Connections

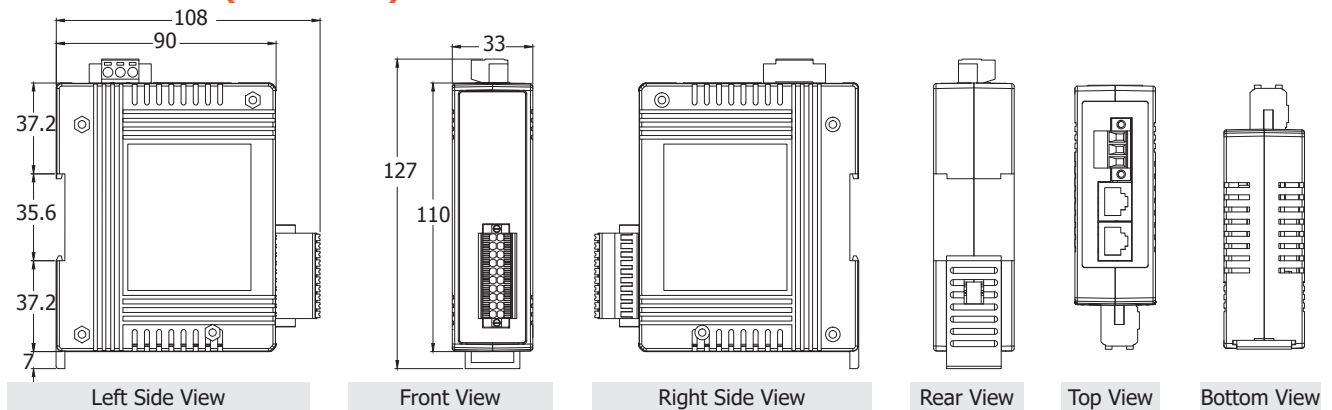
ECAT-2052 / ECAT-2052-NPN / ECAT-2055		
Input /Counter	Readback as 1	Readback as 0
Sink	+10 ~ +50 Vdc	OPEN or <4 Vdc
Source	+10 ~ +50 Vdc	OPEN or <4 Vdc

ECAT-2052-NPN / ECAT-2055		
Output Type	ON State Readback as 1	OFF State Readback as 0
Drive Relay		
Resistance Load		

ECAT-2055		
Input /Counter	Readback as 1	Readback as 0
Dry	Close to GND	Open

ECAT-2052		
Output Type	ON State Readback as 1	OFF State Readback as 0
Inductive Load		
Resistance Load		

Dimensions (Units: mm)



Ordering Information

ECAT-2052 CR	EtherCAT SubDevice I/O Module with Isolated 8-ch DI (Wet) and 8-ch DO (Source, PNP) (RoHS)
ECAT-2052-NPN CR	EtherCAT SubDevice I/O Module with Isolated 8-ch DI (Wet) and 8-ch DO (Sink, NPN) (RoHS)
ECAT-2055 CR	EtherCAT SubDevice I/O Module with Isolated 8-ch DI (Dry, Wet) and 8-ch DO (Sink, NPN) (RoHS)