EtherCAT Series Products

Isolated 8-ch DO and 8-ch DI EtherCAT Slave I/O Module

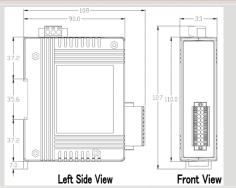








ECAT-2052-NPN



Dimensions

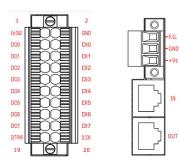
The ECAT-2052-NPN is an industrial slave I/O module built in 8 digital inputs and 8 digital outputs. It is equipped with the EtherCAT* protocol and installed by daisy chain connection that provides a more scalable system with fewer wires. Users can obtain the input and output status not only via the process data but also from its LED indicators. The ECAT-2052-NPN 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.

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
- RoHS compliant
- ESD Protection 4 KV Contact for each channel

Pin Assignment



Wire connection

Output	ON	OFF	
Drive Relay	Ext.PWR DOX Ext.GND	Ext.PWR DOx Ext.GND	
Resistance Load	Ext.PWR DOX Ext.GND	Ext.PWR DOX Ext.GND	
Input	ON	OFF	
Relay Contact (Dry)	Relay DIX GND	Relay DEX GND	
Open Collector (Dry)	ON ∹↓I □⊖ DIX GND	OFF-K√x □⊖ DIX GND	
Relay Contact (Wet)	+ ☐ □☐ DI.COM DIx	+ = DI.COM DIx	
NPN Output (Wet)	ON LITTURE DI.COM DIX	OFF: DI.COM DIX	

Application

Dai	sy Chain	Up to 65535 EtherCAT Slave Units
EtherCAT Master Unit	Up to 100m	Up to 100m
Isolated Digital Input	15 (S)	Relay Isolated Digital Outputs
Switches, Buttons, etc.	ECAT-	2000 Alarms, Fans, Heater, etc.

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Hardware Specifications

Digital Input				
Channels	8			
Input Type	Wet (Sink/Source)			
OFF Voltage Level	+2 V Max.			
ON Voltage Level	+3.5 V ~ +50 V			
Photo-Isolation	3750 VDC			
Digital Output				
Channels	8			
Output Type	Open Collector (Sink)			
Load Voltage	+3.5 ~ 50 V			
Max. Load Current	100mA per channel			
Isolation Voltage	3750 Vrms			
Communication Interface				
Connector	2 x RJ-45			
Protocol	EtherCAT			
Distance between Stations	Max. 100 m (100BASE-TX)			
Data Transfer Medium	Ethernet/EtherCAT Cable (Min. CAT 5), Shielded			
Power				
Input Voltage Range	10V ~ 30VDC			
Power Consumption	Max. 4W			
Mechanism				
Installation	DIN-Rail			
Dimensions	110mm x 90mm x 33mm (H x W x D, without connectors)			
Case Material	UL 94V-0 Housing			
Environment				
Operating Temperature	-25°C ~ 75°C			
Storage Temperature	-30°C ~ 80°C			
Relative Humidity	10 ~ 90%, No Condensation			
ESD (IEC 61000-4-2)	4 KV Contact for Each Channel			
EFT (IEC 61000-4-4)	Signal: 1 KV Class A; Power: 1 KV Class A			
Surge (IEC 61000-4-5)	1 KV Class A			

Ordering Information

ECAT-2052NPN CR EtherCAT Slave I/O Module with Isolated 8-ch DO and 8-ch DI (RoHS)

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