

| ⊪ 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 4-ch source or sink type digital outputs and 13-ch digital inputs |
| ■ RoHS compliant |
| ■ ESD Protection 4 KV Contact for each channel |
| CE FC KOHS Z |

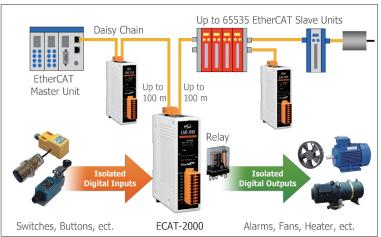
✓ Introduction _

The ECAT-2050 is an industrial slave I/O module built in 4 source or sink type digital outputs and 13 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-2050 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.

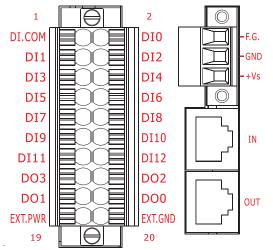
* EtherCAT® is registered trademark and patented technology, licensed by Beckhoff Automation GmbH, Germany.

☑ Hardware Specifications _

| Model | | ECAT-2050 | |
|-----------------------|-------------------|--|--|
| Digital Inp | ut | | |
| Channels | | 13 | |
| Input Type | | Wet (Sink/Source) | |
| Wet | ON Voltage Level | +10 V ~ +50 V | |
| Contact | OFF Voltage Level | +4 V Max. | |
| Photo-Isolat | ion | 3750 VDC | |
| Digital Out | put | | |
| Channels | | 4 | |
| Output Type | | Open Collector (Sink) / Open Emitter (Source) (Jumper Selectable) | |
| Load Voltag | е | +3.5 ~ 30 V | |
| Max. Load Current | | 100 mA per channel | |
| Isolation Voltage | | 3750 VDC | |
| Communic | ation Interface | | |
| Connector | | 2 x RJ-45 | |
| Protocol | | EtherCAT | |
| Distance be | tween Stations | Max. 100 m (100 BASE-TX) | |
| Data Transfer Medium | | Ethernet/EtherCAT Cable (Min. CAT 5), Shielded | |
| EMS Prote | ction | | |
| 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 Consi | umption | 4.5 W Max. | |
| Mechanica | I | | |
| Dimensions | (H x W x D) | 110 mm x 90 mm x 33 mm | |
| Installation | | DIN-Rail Mounting | |
| Case Material | | UL 94V-0 Housing | |
| Environme | nt | | |
| Operating To | emperature | -25 ~ +75℃ | |
| Storage Ten | perature | -30 ~ +80°C | |
| Relative Humidity | | 10 ~ 90% RH, Non-condensing | |



☑ Pin Assignments _



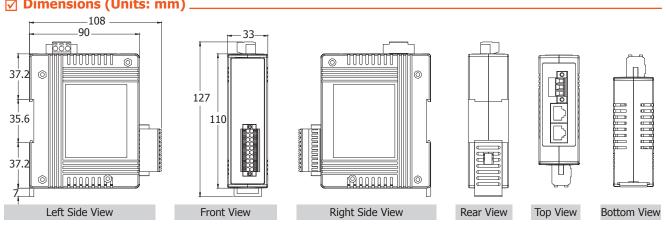
☑ Wire Connections .

| Digital Input /Counter | Readback as 1 | Readback as 0 |
|------------------------------|----------------------------|-------------------------------|
| | $+10 \sim +50 \text{ VDC}$ | OPEN or <4 VDC |
| Sink | DIX 10K To other channels | DIX 10K |
| | +10 ~ +50 VDC | OPEN or <4 VDC |
| Source | DIX 10K | DIX 10K W To other channels |

| | Open Collector (Sink) | | | | | | | |
|-------------------------|---------------------------|----------------------------|----------------------|--|--|--|--|--|
| Output Type | ON State Readback as 1 | OFF State Readback as 0 | Jumper Selectable | | | | | |
| Drive Relay | EXT.PWR DOX EXT.GND | EXT.PWR DOX EXT.GND | JP2~JP5 | | | | | |
| Resis- tance Load | EXT.PWR DOX | EXT.PWR DOX EXT.GND | | | | | | |

| Open Emitter (Source) | | | | | | | |
|-----------------------|---------------------------|----------------------------|----------------------|--|--|--|--|
| Output Type | ON State Readback as 1 | OFF State Readback as 0 | Jumper Selectable | | | | |
| Inductive Load | DOX Ext.PWR | DOX Ext.PWR Ext.GND | JP2~JP5 | | | | |
| Resistance Load | Load DOx Ext.PWR | Load + = | | | | | |

☑ Dimensions (Units: mm)



☑ Ordering Information

ECAT-2050 CR EtherCAT Slave I/O Module with Isolated 4-ch Source or Sink type Digital Outputs and 13-ch Digital Inputs (RoHS)