ICP DAS

EtherCAT.

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 output status
- Built-In Inputs and Outputs: 16 DI and 16 DO
- ESD Protection 4 KV Contact for each channel

CE UKCA FC RoHS

ECAT-2055-32
EtherCAT SubDevice I/O Module with Isolated 16-channel DO and 16-channelannel DI
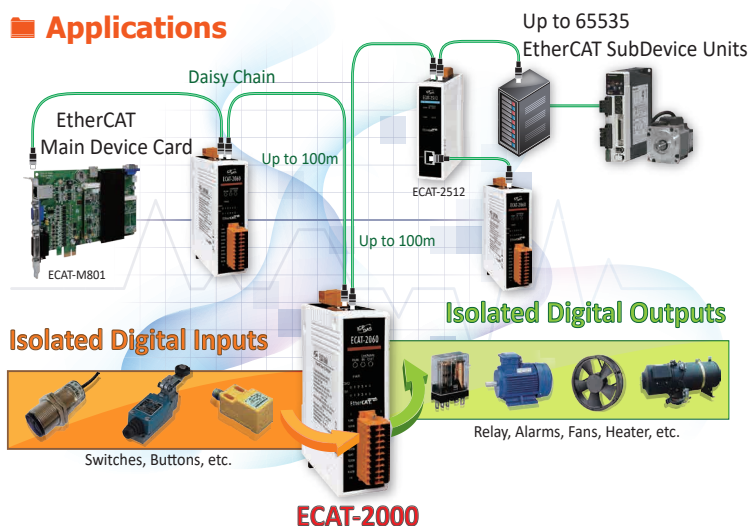
◼ Introduction

The ECAT-2055-32 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-2055-32 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

Digital Input		
Channels		16
Input Type		Wet (Sink/Source)/ Dry (Source)
Wet Contact	ON Voltage Level	+10 V ~ +50 V
	OFF Voltage Level	+4 V Max.
Dry Contact	ON Voltage Level	Close to GND
	OFF Voltage Level	Open
Photo-Isolation		3750 VDC
Digital Output		
Channels		16
Output Type		Open Collector (Sink , NPN)
Load Voltage		+3.5 ~ +50 V
Max. Load Current		700 mA per channel
Isolation Voltage		3750 VDC
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		1 ms
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 ~ +30 VDC
Power Consumption		4 W Max.
Mechanical		
Dimensions (W x L x H)		31 mm x 157 mm x 126 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

Up to 65535 EtherCAT SubDevice Units

Daisy Chain

EtherCAT Main Device Card

Up to 100m

ECAT-2512

Up to 100m

ECAT-M801

Isolated Digital Inputs

Switches, Buttons, etc.

ECAT-2000

Isolated Digital Outputs

Relay, Alarms, Fans, Heater, etc.

Pin Assignments

01		19
EXT.GND		GND
DO0		DI0
DO1		DI1
DO2		DI2
DO3		DI3
DO4		DI4
DO5		DI5
DO6		DI6
DO7		DI7
DO8		DI8
DO9		DI9
DO10		DI10
DO11		DI11
DO12		DI12
DO13		DI13
DO14		DI14
DO15		DI15
EXT.PWR		DI.COM
18		36

F.G.
GND
+Vs
IN
OUT

Wire Connections

Digital Input/ Counter	Readback as 1	Readback as 0
Sink	+10 ~ +50 V$_{DC}$	OPEN or <4 V$_{DC}$
Source	+10 ~ +50 V$_{DC}$	OPEN or <4 V$_{DC}$
Dry Contact	Close to GND	Open
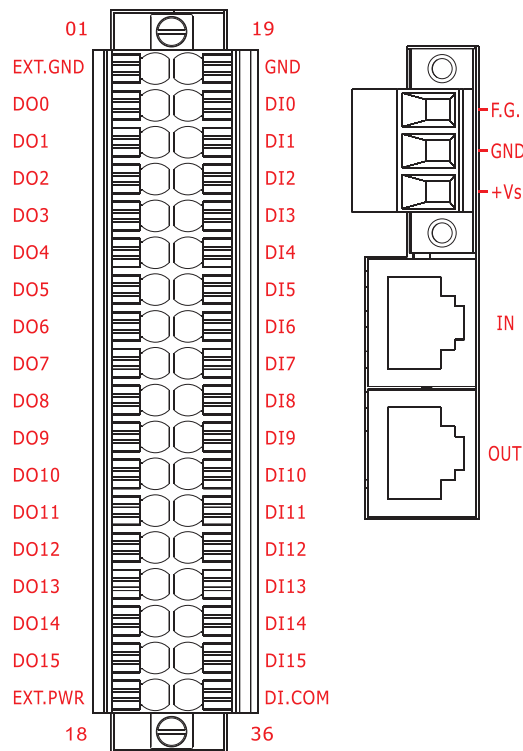
Output Type	ON State Readback as 1	OFF State Readback as 0
Drive Relay		
Resistance Load		

Dimensions (Units: mm)

126
112.2
52.2
35.6
59.2
31
140
157

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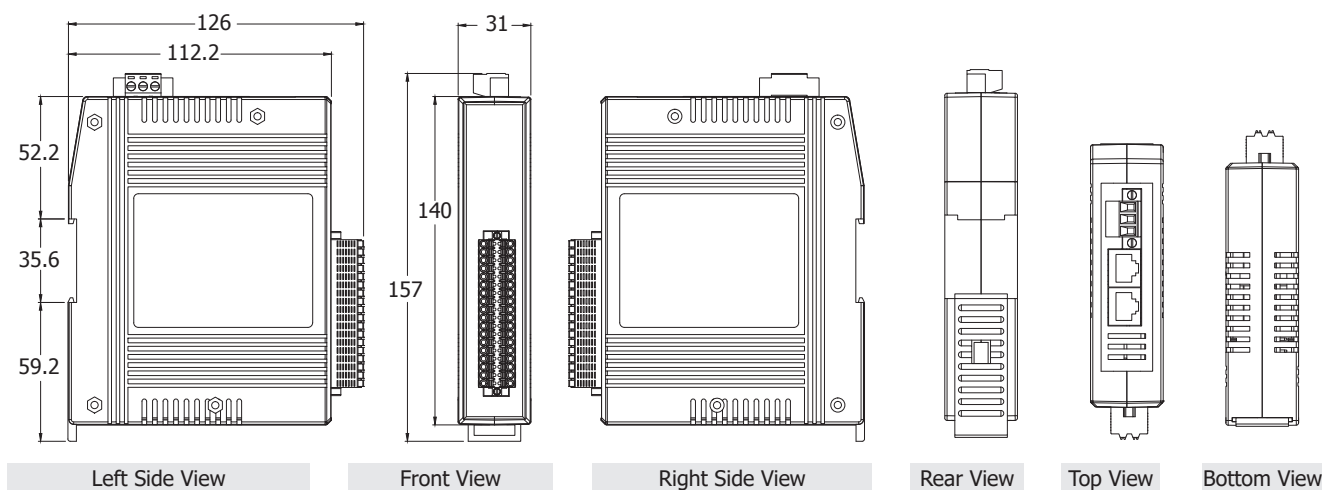
Ordering Information

ECAT-2055-32 CR	EtherCAT SubDevice I/O Module with Isolated 16-channel DO and 16-channel DI (RoHS)