



ECAT-2094P

4-axis Pulse Output Module

Features

- Support CiA402 protocol
- 4-axis independent control and pulse output up to 4MHz
- Pulse output options: CW/ CCW, Pulse/Direction
- 4 x Encoder interfaces (A, B, Z), differential
- Distance between stations up to 100 m (100BASE-TX)
- Support daisy chain connection



Introduction

The ECAT-2094P pulse output module is a cost-effective, four-in-one pulse output module. The ECAT-2094P simultaneously controls up to four pulse type motor drivers.

The ECAT-2094P is a standard EtherCAT slave and an EtherCAT master is required to operate the device. The ECAT-2094P supports two operation modes: Free-Run and Distributed Clock (DC).

Pulse type motor drivers can be directly connected to the ECAT-2094P device. The device is designed to operate a pulse-type drive with pulse output. Configuration has to be done by the EtherCAT master and the application program.

The ECAT-2094P has four integrated incremental encoder interfaces. Four 32 bit high frequency encoder counter counts the input signal of external incremental encoders. The encoder can for example be used for homing purposes and for consistency checks.

For each motor three digital input channels are provided: A Left and right hardware limit switch and a home switch. The hardware limit switch which automatically stops the motor when activated, and all three digital inputs can be used for home position search.

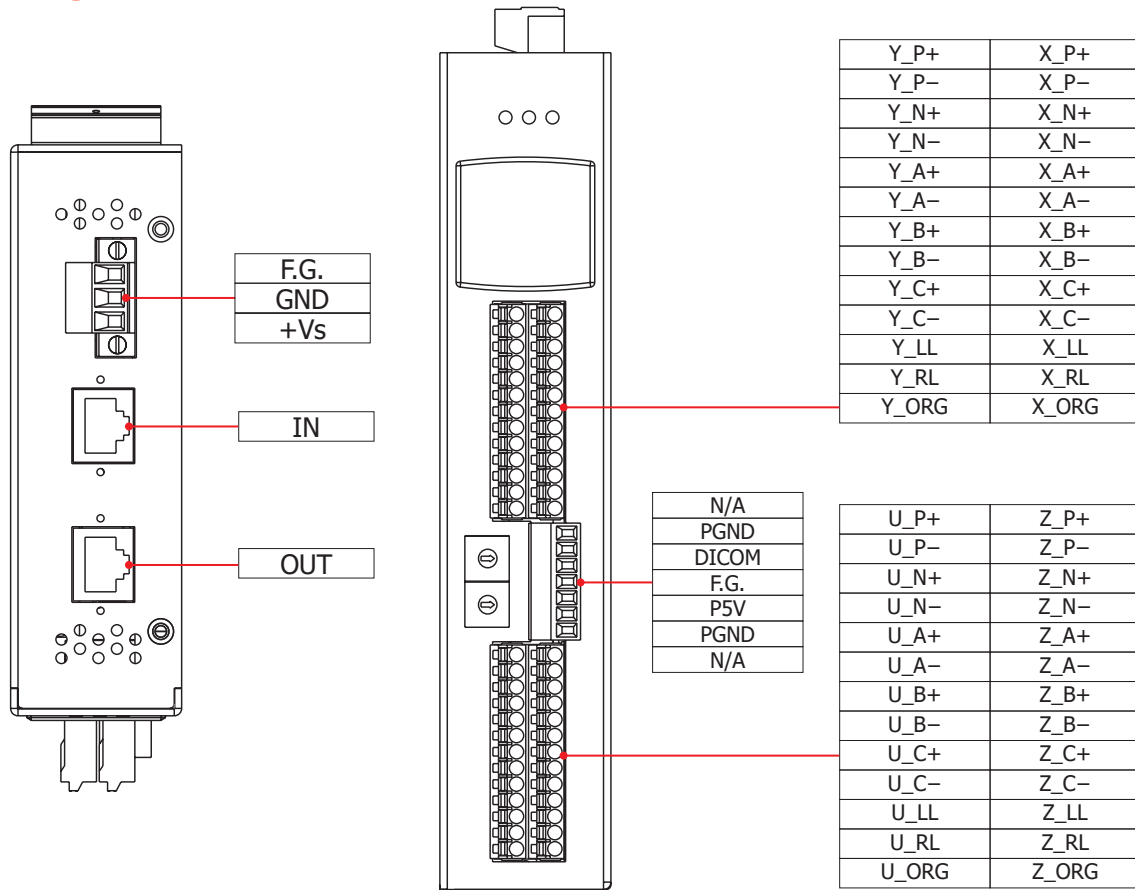
Applications

- Automated Test Equipment
- Surveillance Systems
- Labeling Machinery
- Packaging
- Semiconductor Manufacturing
- Engraving Machine
- Automatic Feeding Machine

■ Specifications

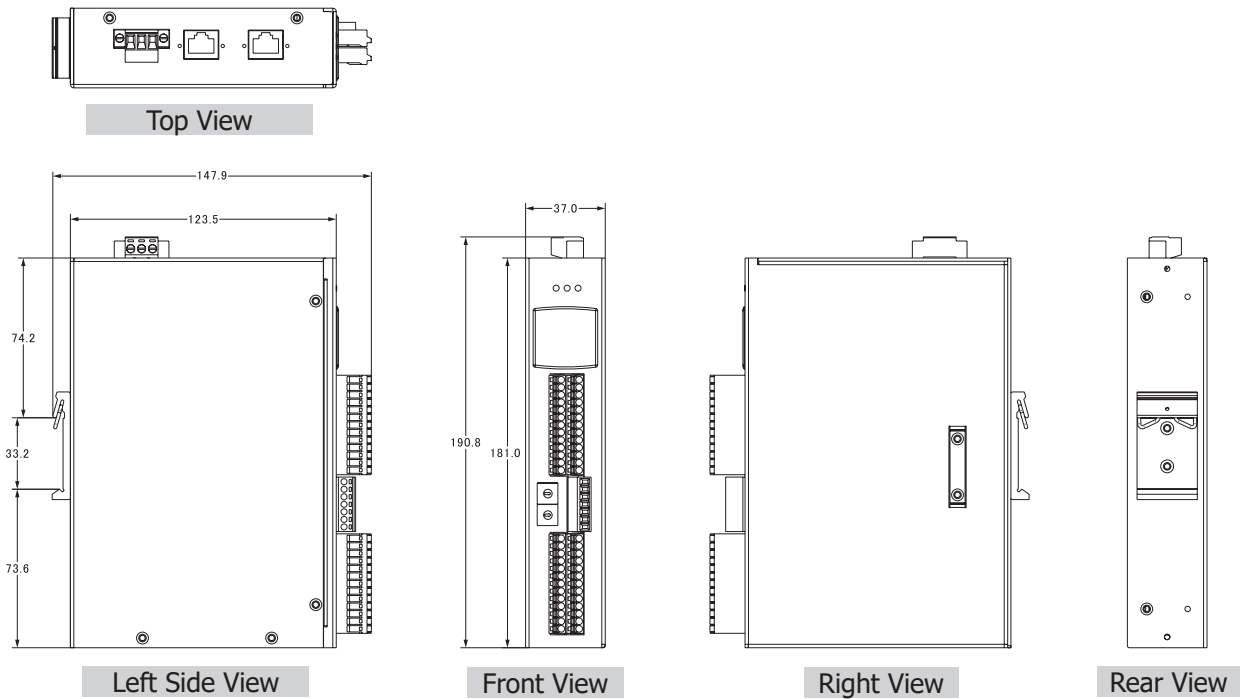
Model	ECAT-2094P	
EMS Protection		
EFT (IEC 61000-4-4)	Signal : 1 KV Class A; Power : 1 KV Class A	
ESD (IEC 61000-4-2)	4 KV Contact for each channel	
Surge (IEC 61000-4-5)	1 KV Class A	
LED Indicators		
Status	1 x Power 1 x Operation State 2 x Communication 12 x DI status 18 x Motion status	
Encoder Input		
No. of Axes	4, differential	
Mode	A/B phase, CW/CCW, Pules/Dir	
Frequency	1 MHz Max.	
Motor Output		
No. of Axes	4	
Step Frequency	4 MHz Max.	
Digital Input		
Channels	12	
Type	Wet Contact	
ON Voltage Level	10 ~ 24 VDC	
OFF Voltage Level	4 VDC Max.	
Isolation	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	0.5 Millisecond	
Distributed Clocks	Yes	
Power		
Input Range	+20 VDC ~ +30 VDC	
Mechanical		
Casing	Metal	
Dimensions (W x L x H)	DIN-rail mounting	37 mm x 191 mm x 148 mm
	Wall mounting	37 mm x 229 mm x 142 mm
Installation	DIN-rail mounting or wall mounting	
Environmental		
Operating Temperature	-25 ~ +40 °C	
Storage Temperature	-30 ~ +80 °C	
Ambient Relative Humidity	10 ~ 90% RH, Non-condensing	

Pin Assignments

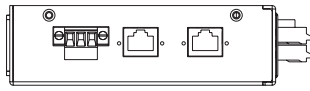


Dimensions (Units: mm)

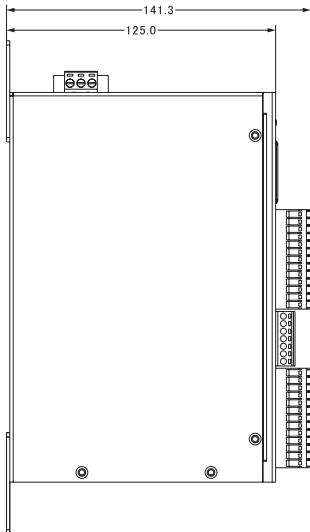
DIN-rail mounting



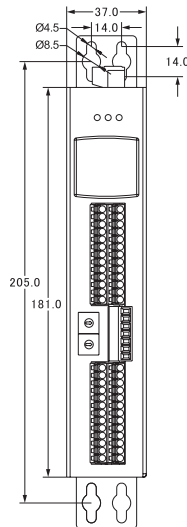
Wall mounting



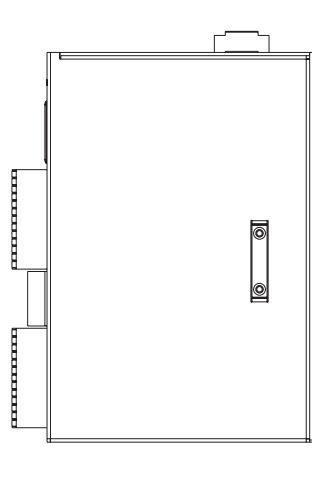
Top View



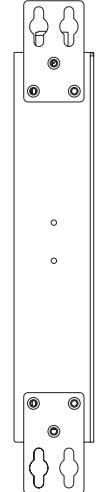
Left Side View



Front View



Right View



Rear View

Wire Connections

Digital Input	Readback as 1	Readback as 0
Sink	+10 ~ +24 VDC 	OPEN or <4 VDC
	+10 ~ +24 VDC 	OPEN or <4 VDC

Ordering Information

ECAT-2094P CR

EtherCAT slave CiA402 Standard 4-axis pulse output module (Metal Case) (RoHS)