



## 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 SubDevice and an EtherCAT MDevice 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 MDevice 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.

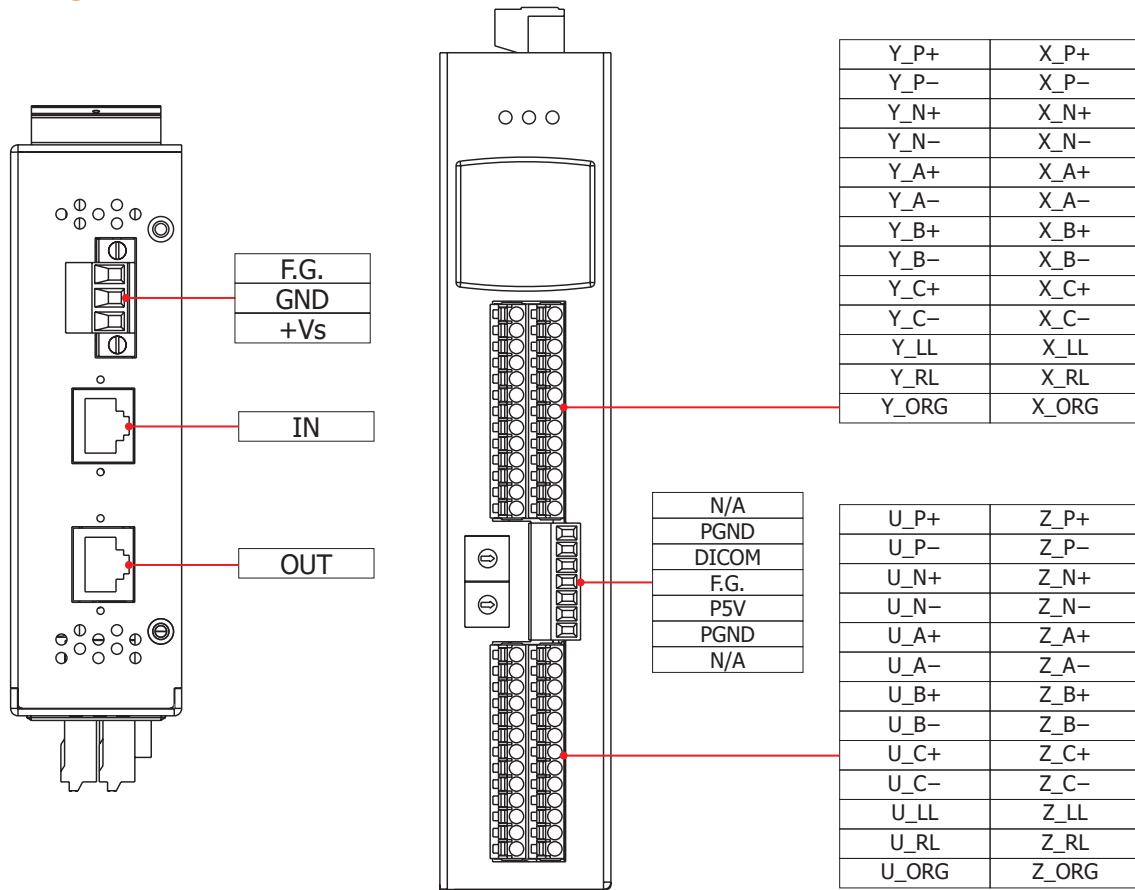
### Applications

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

## ■ Specifications

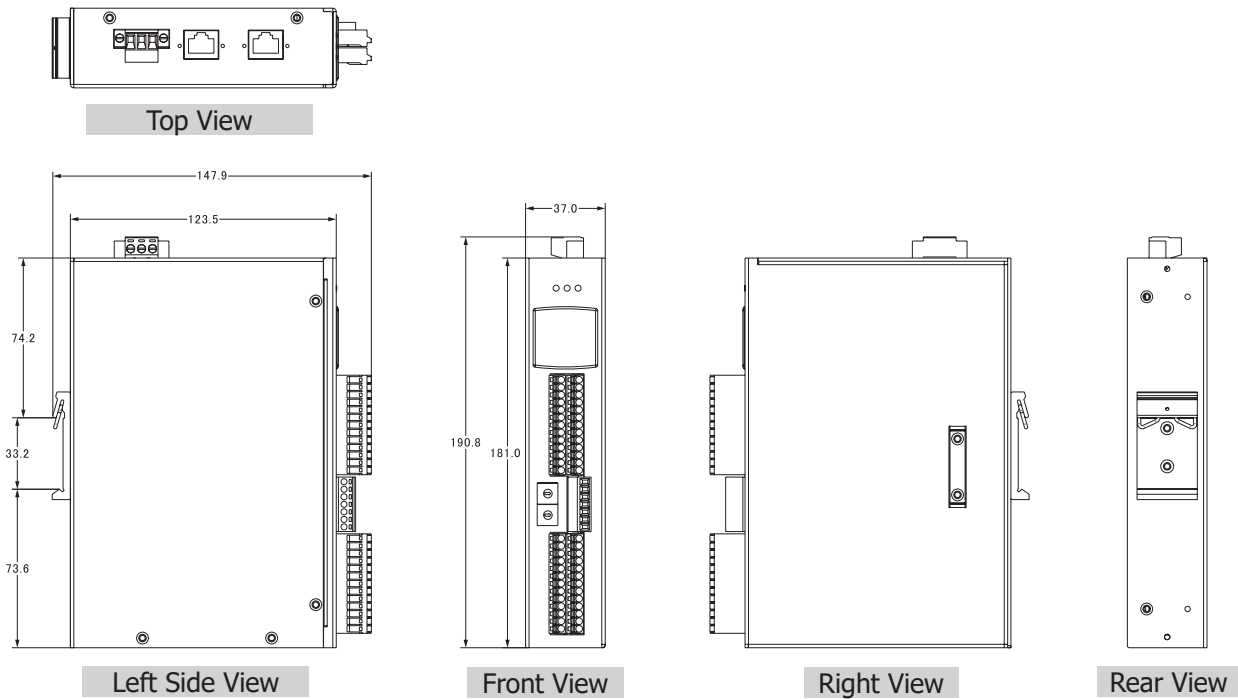
<b>Model</b>	<b>ECAT-2094P</b>	
<b>EMS Protection</b>		
EFT (IEC 61000-4-4)	Signal : 1 KV Class A; Power : 1 KV Class A	
ESD (IEC 61000-4-2)	4 KV Contact for each channel	
Surge (IEC 61000-4-5)	1 KV Class A	
<b>LED Indicators</b>		
Status	1 x Power 1 x Operation State 2 x Communication 12 x DI status 18 x Motion status	
<b>Encoder Input</b>		
No. of Axes	4, differential	
Mode	A/B phase, CW/CCW, Pules/Dir	
Frequency	1 MHz Max.	
<b>Motor Output</b>		
No. of Axes	4	
Step Frequency	4 MHz Max.	
<b>Digital Input</b>		
Channels	12	
Type	Wet Contact	
ON Voltage Level	10 ~ 24 VDC	
OFF Voltage Level	4 VDC Max.	
Isolation	3750 VDC	
<b>EtherCAT</b>		
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	
<b>Power</b>		
Input Range	+20 VDC ~ +30 VDC	
<b>Mechanical</b>		
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	
<b>Environmental</b>		
Operating Temperature	-25 ~ +40 °C	
Storage Temperature	-30 ~ +80 °C	
Ambient Relative Humidity	10 ~ 90% RH, Non-condensing	

## Pin Assignments

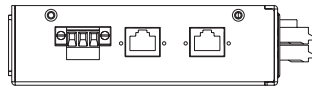


## Dimensions (Units: mm)

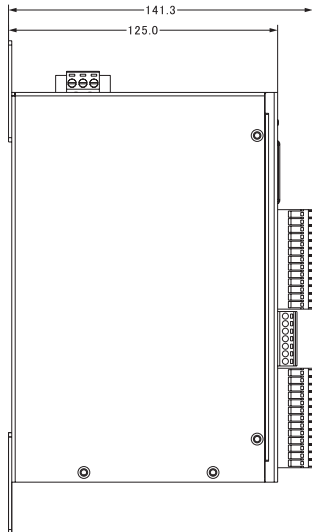
### DIN-rail mounting



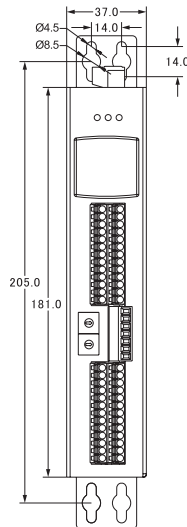
## Wall mounting



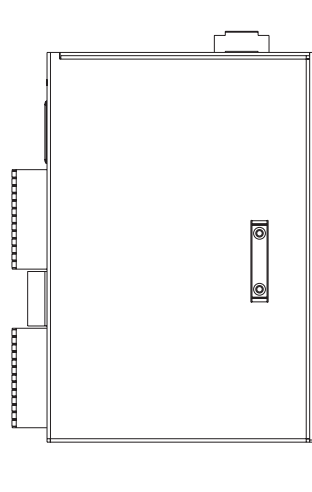
Top View



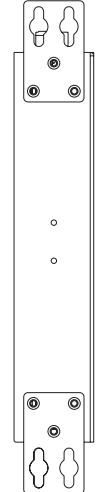
Left Side View



Front View



Right View



Rear View

## Wire Connections

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

## Ordering Information

**ECAT-2094P CR**

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