

ECAT-4XMO/ECAT-TRG4

4-Channel Motion Control and High Speed Trigger EtherCAT Bridge Module

Features

- 4 table trigger—10 Mhz max w/ FIFO 255 points
- 4 linear trigger—10 Mhz max.
- 4 channel latch response—3 MHz max. w/ 255 points
- Hardware emergency stop interface
- Supports gantry function up to 32 sets with master
- Power-off memory for axis parameter
- Supports encoder re-driver function
- Supports advanced point table





ECAT-TRG4

Introduction

The ECAT-4XMO and ECAT-TRG4 are EtherCAT slave modules with high-speed position comparison trigger and encoder single redriver function, helping machine and equipment builders to use multiple triggers simultaneously for AOI, glue dispensing, display tests, and storage assembly applications.

Additionally, the ECAT-4XMO has 4-axis motion control with bridge function between EtherCAT and non-EtherCAT. Advanced motion control functions help machine and equipment builders to increase their motor selection portfolio, like leaner, step, servo, direct drive, and AC motors, making it ideal for a variety of automation industry applications.

Ordering Information

ECAT-4XMO

4-channel motion control and high-speed trigger module for the bridge connected to EtherCAT

ECAT-TRG4

4-channel high speed position comparison and trigger module

Specifications

Model Name	ECAT-4XMO	ECAT-TRG4
EtherCAT Communication		
Communication Cycle Time	250 / 500 / 1000 / 2000 microsecond	
Number of Controllable Axes	4	
Support Motion modes	Single axis move, multi axes move trigger & stop, jog move, advanced single move & interpolation, advanced point table, gear/gantry function, manual pulse generator function, (please refer to ADLINK's APS function library)	
1/0		
Motion I/O	PEL, MEL, ORG, LTC (per axis)	-
Servo I/O	SVON, RDY, RST, ALM, INP, ERC (per axis)	-
Pulse Output	OUT/DIR, up to 12 MHz pin (OUT/DIR) CW/CCW, up to 12 MHz	-
Encoder Input	CW/CCW up to 8 MHz OUT/DIR up to 8 MHz 1/2/4xAB up to 20 MHz	
Encoder Re-driver	Encoder input OUT/DIR signal sharing to output pin, up to 10 MHz	
Trigger Output	4 linear trigger max. 10 Mhz 4 table trigger max. 10Mhz w/ FIFO 255 points Table size = 8192 points/axis	
Latch input	Source type, DI/PWM 4-channel latch response max. 3 Mhz with 255 points (multiple and single point size = 5256 points)	
GPIO	4DI, 4DO (4DO and RST are common pin, selected by DIP switch)	
EMG	Per Module	
DIP Switch	6 bits for ID setting 4 bits for EA1+/-, EB1+/- open/short selection between CN6 and D-SUB 26P 2 bits for DO connect to alarm reset pin of D-SUB 26P (ECAT-4XMO only)	
General Specifications		
Power Consumption	Max = 5W, (power sup	ply input 24V DC±10%)
Protection	Over current, short, reverse, 1A	
Operating temperature	0 to 50°C	
Non-operating temperature	-40 to 70°C Relative humidity: 10 to 90%, non-condensing	
Dimension	165.3 x 74.9 x 52.7 mm (W x D x H)	
Certificate		
EMC	FCC Part 15b, and EN55032 (CISPR 32) for Class B	
Safety	IEC62368; IEC61010	

