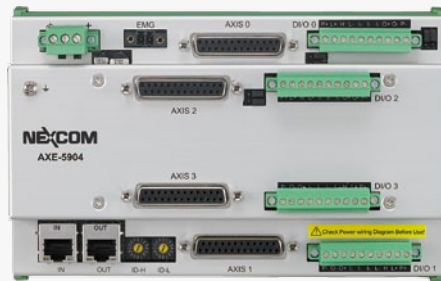


# AXE-5904

Point-to-point 4-axis Pulse Type Motion EtherCAT Slave Module



## Main Features

- ♦ 4-axis independent control and pulse output up to 8Mpps
- ♦ Pulse output options: CW/ CCW, OUT/DIR
- ♦ 4x differential encoder interface, ABZ phase
- ♦ EtherCAT slave protocol communication
- ♦ Support CiA 402 device profile
- ♦ General purpose I/O: 12 DI and 3 DO

## Product Overview

AXE-5904 is a 4-axis pulse type point-to-point motion EtherCAT slave module, featuring real-time EtherCAT communication and CiA 402 device profile for machine automation applications requiring high-speed and point-to-points function. With pulse type commands, AXE-5904 supports pulse output rate up to 4MHz and encoder input up to 8MHz in 4 xAB phase mode and build-in dedicated I/O points for servo control and mechanism to facilitate building up whole machines.

## Specifications

### Pulse Type Motion Control

- ♦ Number of axes: 4
- ♦ Pulse output rate: up to 8pps
- ♦ Pulse command output: CW/ CCW, OUT/DIR, ABZ Phase
- ♦ Committed I/O Signal:  $\pm$ LIM/ $\pm$ CMP/ORG/SVON/RDY/INP/ALM/ALMCLR/DCLR for each axis

### Encoder Input

- ♦ Encoder input type: Incremental, 32-bit
- ♦ Encoder signal: CW/ CCW, AB/Z
- ♦ Positioning Range: -2,147,483,648 through 2,147,483,647 pulse (32-bit)
- ♦ Max. input frequency: 4MHz

### General I/O

- ♦ General-purpose input: 3 channel per axis
- ♦ Input type: photo-coupler input (corresponding to current sink output)
- ♦ Response time of DI (Max.): 100  $\mu$ sec
- ♦ General-purpose output: 2 channel per axis
- ♦ Response time of DO (Max.): 100  $\mu$ sec

### Power Requirements

- ♦ DC input range: DC 24V  $\pm$ 10% with over-voltage and reversed-voltage protection

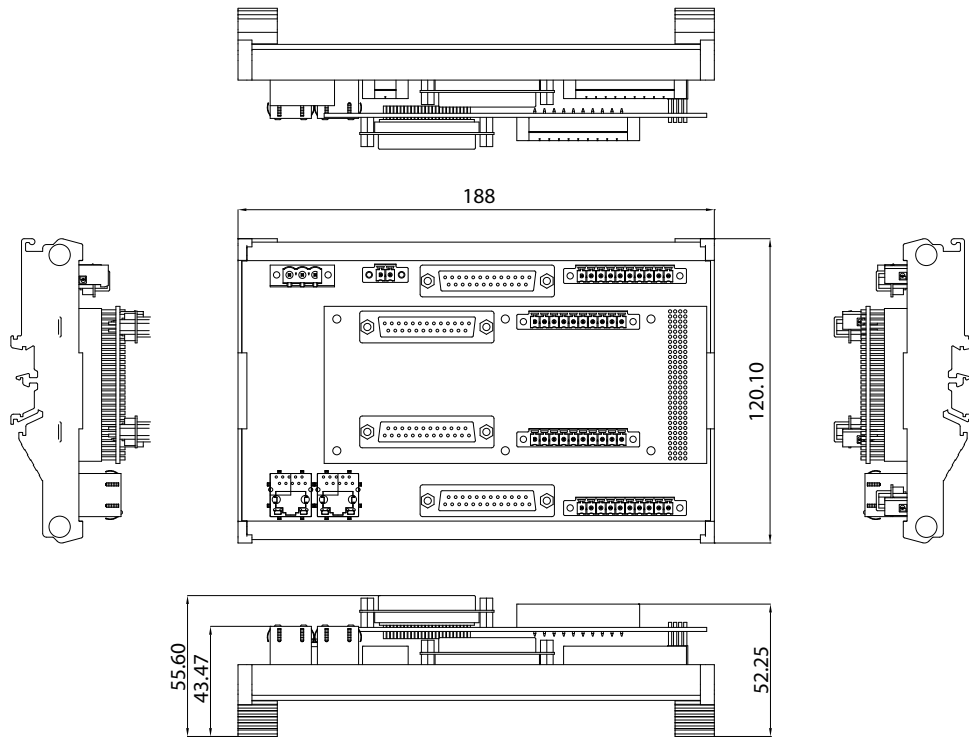
### Common Section

- ♦ Data transfer medium: Ethernet cable (min CAT 5), shield
- ♦ Bus interface: 2x RJ-45
- ♦ Data transfer rate: 100M baud
- ♦ Protocol: EtherCAT
- ♦ Device profile: CiA 402
- ♦ Operating temperature: 0°C to 50°C
- ♦ Relative humidity:
  - ♦ 35~85%, non-condensation, operating
  - ♦ 10~90%, non-condensation, non-operating
- ♦ Shock: IEC 60068 2-27
- ♦ Vibration: IEC 60068 2-64
- ♦ Enclosure type rating: IP00
- ♦ Mounting type: DIN-rail
- ♦ Dimension (mm): 120.1(W) x 188(L) x 55.6(H)

### Certifications

- ♦ CE
- ♦ FCC Class A

## Dimension Drawing



## Ordering Information

### Motion Controller

- **AXE-5904 (P/N: TBD)**  
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