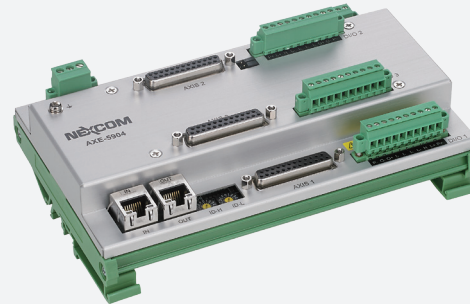
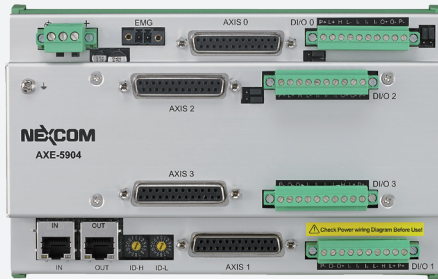


# AXE-5904

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
- ◆ 4 x Differential encoder interface, ABZ phase
- ◆ EtherCAT slave protocol communication
- ◆ Support CiA 402 device profile
- ◆ General purpose I/O: 12 DI

## 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

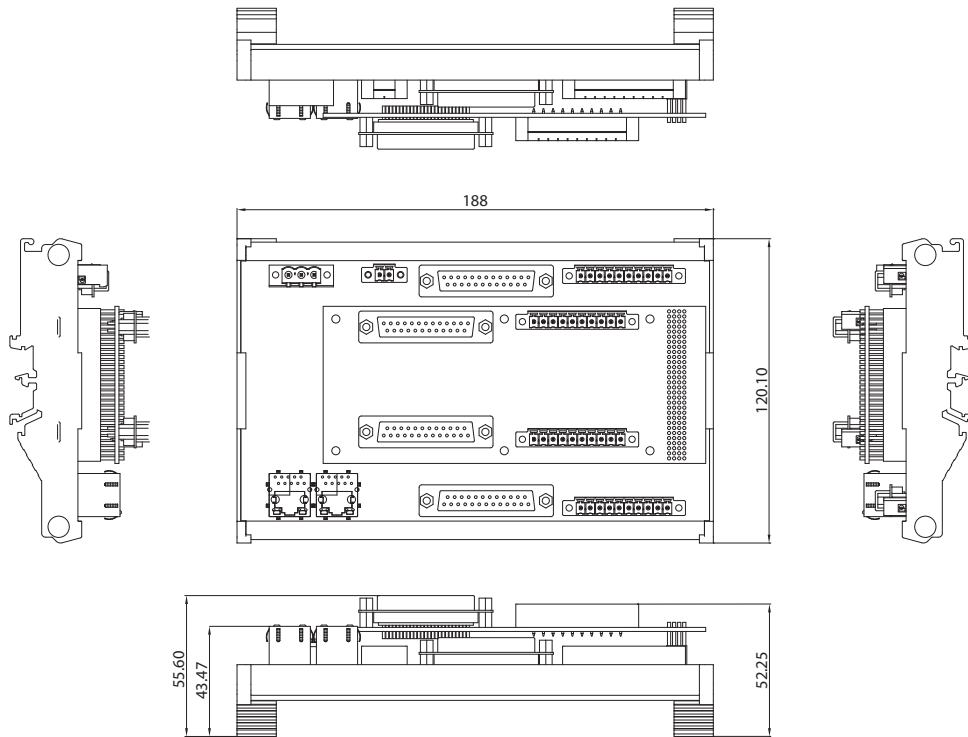
### Common Section

- ◆ Data transfer medium: Ethernet cable (min CAT 5), shield
- ◆ Bus interface: 2 x 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

- ◆ **AXE-5904 (P/N: 10J40590400X0)**  
Point-to-point 4-axis pulse type motion EtherCAT slave module