



## ET-M8194A

Ethernet Remote Unit with High-speed 4-axis Motion Control Module

### Features

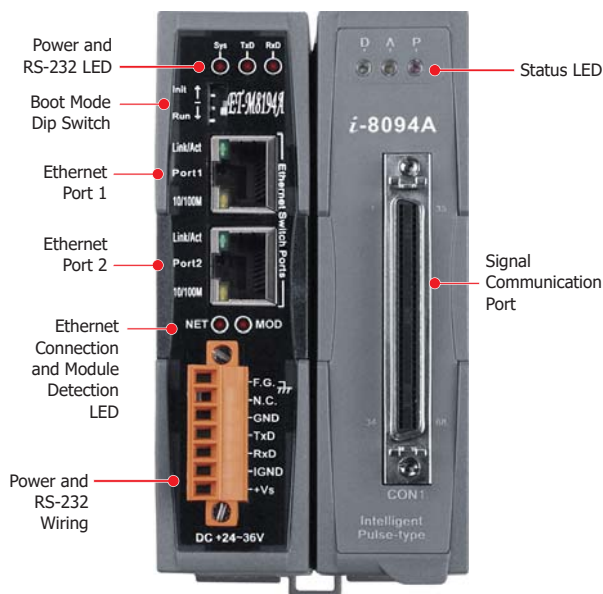
- Remote control via Modbus TCP
- Can be controlled using SCADA, PAC, or PLC
- Can be integrated into multi-station, multi-axis applications
- 4-axis motion control capability
- 2/3-axis linear interpolation function
- 2-axis circular interpolation function
- Programmable automatic homing function
- EzMove Utility for configuration and macro programming
- Test motion functions via EzMove without compilation
- Library for rapid development of applications
- Easy wiring for multi-station applications
- Can be set as a remote or stand-alone motion controller



### Introduction

**ET-M8194A** is a remote four-axis stepping/pulse-type servo motor controller and acts as a server in a Modbus TCP/IP network. This intelligent motion controller also has a variety of built-in motion control functions, such as 2/3 axes linear interpolation, 2 axes circular interpolation, T/S-curve acceleration/deceleration, various synchronous actions, and automatic homing. The controller is suitable for a wide range of remote motion control applications and can be integrated into any system where the host platform is built on the Modbus TCP protocol (for example PC, PAC, or PLC). In addition, a multi-station, multi-axis motion control solution can easily be achieved by cascading several ET-M8194A devices using Ethernet cables, either with or without Ethernet switches. Software configuration utility and API Library are provided to configure the ET-M8194A and to rapidly develop customized control applications.

### Hardware



### ET-M8194A Interface Functions

### Software Supported: ET-M8194A/H SDK

#### EzMove Utility

An EzMove utility is provided for configuring the ET-M8194A and assisting the user in writing macro programs and in getting familiar with the ET-M8194A and its motion commands. Furthermore, it can be used for motion monitoring and tracking of the motion path.



#### API Library

The ET-M8194A/H API Library consists of several single and multi-axis configuration and motion control commands. In addition, APIs are provided to edit and download Macro Programs (MP). No Modbus knowledge is required as the library handles all Modbus communication internally.

DLL and libraries for the following development environments are provided:

- Visual C++
- BCB 5.0, 6.0
- C#, VB.NET
- Visual Basic 6.0

## Specifications

Model	ET-M8194A	Model	ET-M8194A
<b>Software</b>		<b>Mode</b>	
OS Support	Windows 7/8/10 32/64 bit	Counting Rate	A/B Phase, Up/Down
Development	Visual C++ lib/DLL, C#, VB.Net DLL Visual Basic 6.0, BCB 5.0, 6.0 Macro Programming	Counter Width	4 MHz
Utility	EzMove Utility	<b>Pulse Output</b>	
<b>Hardware</b>		Mode	CW/CCW, PULSE/DIR
Connector	68-pin SCSI-II	Counter Width	32-bit
<b>General</b>		Rate	4 MPPS (Max.)
No. of Axes	4	<b>Interpolation</b>	
Motion Control Type	IC Chip Based	Cicular	Any 2 axes (one group only)
Synchronous Action	10 activation factors and 14 actions	Continuous	Yes
Speed Profile	T/S-curve	Linear	Any 2 to 3 axes (one group only)
Position Control Mode	Incremental and absolute mode	<b>Digital Input</b>	
Command Type	Pulse Command	Channels	Local: 4 DI
Auto-Home Search	Yes	Isolation	2500 Vrms (with DN-8468)
Input Signal Filter	2 ~ 16 ms, 8 stages	<b>Digital Output</b>	
<b>Axis I/O</b>		Channels	-
Servo Interface Output	SVON	Isolation	2500 Vrms (with DN-8468)
Latch Input	Yes	<b>Ethernet</b>	
Manual Pulse Generator	Yes	Protocol	Modbus TCP
Mechanical Switch Input	Home, Limit+/-, Near Home, Emergency	<b>Power</b>	
Position Compare Output	10 KHz (X and Y only)	Input Range	+24V
Servo Interface Input	INP, ALM	<b>Mechanical</b>	
<b>Encoder Input</b>		Dimensions (mm)	65 x 121 x 99 (W x L x H)
Ring Counter Mode	32-bit	<b>Environment</b>	
		Operating Temperature	-20 ~ +75°C
		Storage Temperature	-30 ~ +85°C
		Humidity	10 ~ 90% RH, Non-condensing

## Applications

- ➔ X-Y-Z Table
- ➔ Spinner
- ➔ Fix-Pitch Stamping Machine
- ➔ Loader/Unloader
- ➔ Transfer Machine

## Ordering Information

<b>ET-M8194A</b>	Ethernet Remote Automation Unit with High-speed 4-axis Motion Control Module
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## Accessories

DN-8468UB	Photo-isolated Universal Snap-on Wiring Terminal Board
DN-8468GB	Photo-isolated General Purpose Wiring Terminal Board
DN-8468MB	Photo-isolated Snap-on Wiring Terminal Board for Mitsubishi MELSERVO-J2 Servo Amplifier
DN-8468PB	Photo-isolated Snap-on Wiring Terminal Board for Panasonic MINAS A4/A5 Servo Amplifier
DN-8468YB	Photo-isolated Snap-on Wiring Terminal Board for Yaskawa Sigma II/III/V Servo Amplifier
DN-8468DB	Photo-isolated Snap-on Wiring Terminal Board for Delta ASDA-A Servo Amplifier
DN-8468FB	Photo-isolated Snap-on Wiring Terminal Board for Fuji FALDIC-W Servo Amplifier
CA-SCSI15-H3	68-pin SCSI-II Connector Cable; Length 1.5 M
CA-SCSI30-H3	68-pin SCSI-II Connector Cable; Length 3.0 M
CA-SCSI50-H2	68-pin SCSI-II Connector Cable; Length 5.0 M