

ET-M8194A

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

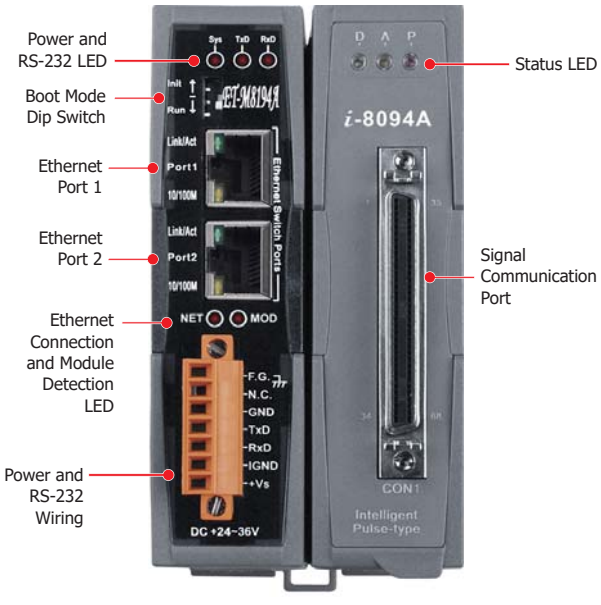
Features

- 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

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Specifications

Model	ET-M8194A
Software	
OS Support	Windows 7/8/10 32/64 bit
Development	Visual C++ lib/DLL, C#, VB.Net DLL Visual Basic 6.0, BCB 5.0, 6.0 Macro Programming
Utility	EzMove Utility
Hardware	
Connector	68-pin SCSI-II
General	
No. of Axes	4
Motion Control Type	IC Chip Based
Synchronous Action	10 activation factors and 14 actions
Speed Profile	T/S-curve
Position Control Mode	Incremental and absolute mode
Command Type	Pulse Command
Auto-Home Search	Yes
Input Signal Filter	2 ~ 16 ms, 8 stages
Axis I/O	
Servo Interface Output	SVON
Latch Input	Yes
Manual Pulse Generator	Yes
Mechanical Switch Input	Home, Limit+/-, Near Home, Emergency
Position Compare Output	10 KHz (X and Y only)
Servo Interface Input	INP, ALM
Encoder Input	
Ring Counter Mode	32-bit

Model	ET-M8194A
Mode	A/B Phase, Up/Down
Counting Rate	4 MHz
Counter Width	32-bit
Pulse Output	
Mode	CW/CCW, PULSE/DIR
Counter Width	32-bit
Rate	4 MPPS (Max.)
Interpolation	
Cicular	Any 2 axes (one group only)
Continuous	Yes
Linear	Any 2 to 3 axes (one group only)
Digital Input	
Channels	Local: 4 DI
Isolation	2500 Vrms (with DN-8468)
Digital Output	
Channels	-
Isolation	2500 Vrms (with DN-8468)
Ethernet	
Protocol	Modbus TCP
Power	
Input Range	+24V
Mechanical	
Dimensions (mm)	65 x 121 x 99 (W x L x H)
Environment	
Operating Temperature	-20 ~ +75°C
Storage Temperature	-30 ~ +85°C
Humidity	10 ~ 90% RH, Non-condensing

Applications

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

Ordering Information

ET-M8194A	Ethernet Remote Automation Unit with High-speed 4-axis Motion Control Module

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 CA-SCSI30-H3 CA-SCSI50-H2	68-pin SCSI-II Connector Cable; Length 1.5 M 68-pin SCSI-II Connector Cable; Length 3.0 M 68-pin SCSI-II Connector Cable; Length 5.0 M

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