

RS-M8194H

Serial Communication Remote Unit
with High-speed 4-axis Motion Control Module

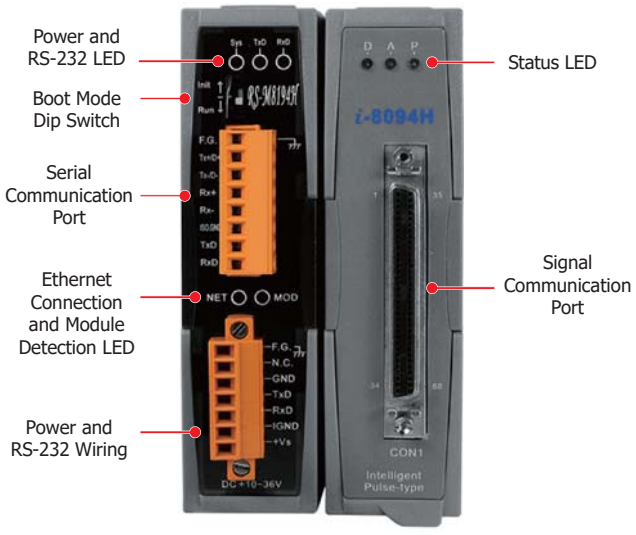
Features

- Remote control via Modbus RTU
- Can be controlled using SCADA, PAC, or PLC
- Can be integrated into a 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
- API Library for rapid development of applications
- Easy wiring for multi-station applications
- Can be set as a remote or stand-alone motion controller
- Supports high-speed FRnet I/O: 128 DO and 128 DI

Introduction

The **RS-M8194H** is a new product from ICP DAS that can be used to implement remote control functionality via the serial communication and includes an I-8094H module (a 4-axis stepping/pulse-type servo motor control module with an embedded CPU) and a serial communication interface. The intelligent RS-M8194H can provide users with the ability to develop a wide range of remote motion control applications, and can be integrated in any system where the host platform is built on the Modbus RTU protocol (for example: PC, PAC or PLC). ICP DAS also provides the EzMove Utility and an API Library that can be used to configure the RS-M8194H and to rapidly develop customized control applications.

Hardware



Software

EzMove Utility

EzMove is a configuration utility developed by ICP DAS for the RS-M8194H controller. It is intended to perform motion control tasks and movement test on equipment without the need to first create customized applications. As the EzMove Utility is a Modbus client, it can be used to create and edit Macro Programs (MP), which can then be uploaded to the RS-M8194H. The EzMove Utility can also display and plot position/velocity of all four axes as well as display Modbus RTU messages for easy reference.



API Library

The RS-M8194H API Library is composed of nine groups of functions, which can be utilized to edit Macro Programs (MP) and send Modbus RTU commands required to control or configure the I-8094H. The library provides users with the ability to simultaneously control a large number of RS-M8194H from the PC. 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	RS-M8194H
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	
Mode	A/B Phase, Up/Down
Ring Counter Mode	32-bit

Model	RS-M8194H
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: 1 DI Expandable: 128 DI
Isolation	2500 Vrms (with DN-8468)
Digital Output	
Channels	Expandable: 128 DO
Isolation	2500 Vrms (with DN-8468)
COM Ports	
Ports	1 x RS-232/422/485
Baud Rate	115200 bps Max.
Protocol	Modbus RTU
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

RS-M8194H	Serial Communication 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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