



PointMax EtherNet/IP Adapter

5034-AENTR, 5034-AENTRXT



Allen-Bradley

by ROCKWELL AUTOMATION

Important User Information

Read this document and the documents listed in the additional resources section about installation, configuration, and operation of this equipment before you install, configure, operate, or maintain this product. Users are required to familiarize themselves with installation and wiring instructions in addition to requirements of all applicable codes, laws, and standards.

Activities including installation, adjustments, putting into service, use, assembly, disassembly, and maintenance are required to be carried out by suitably trained personnel in accordance with applicable code of practice.

If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

In no event will Rockwell Automation, Inc. be responsible or liable for indirect or consequential damages resulting from the use or application of this equipment.

The examples and diagrams in this manual are included solely for illustrative purposes. Because of the many variables and requirements associated with any particular installation, Rockwell Automation, Inc. cannot assume responsibility or liability for actual use based on the examples and diagrams.

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Throughout this manual, when necessary, we use notes to make you aware of safety considerations.



WARNING: Identifies information about practices or circumstances that can cause an explosion in a hazardous environment, which may lead to personal injury or death, property damage, or economic loss.



ATTENTION: Identifies information about practices or circumstances that can lead to personal injury or death, property damage, or economic loss. Attentions help you identify a hazard, avoid a hazard, and recognize the consequence.

IMPORTANT: Identifies information that is critical for successful application and understanding of the product.

These labels may also be on or inside the equipment to provide specific precautions.



SHOCK HAZARD: Labels may be on or inside the equipment, for example, a drive or motor, to alert people that dangerous voltage may be present.



BURN HAZARD: Labels may be on or inside the equipment, for example, a drive or motor, to alert people that surfaces may reach dangerous temperatures.



ARC FLASH HAZARD: Labels may be on or inside the equipment, for example, a motor control center, to alert people to potential Arc Flash. Arc Flash will cause severe injury or death. Wear proper Personal Protective Equipment (PPE). Follow ALL Regulatory requirements for safe work practices and for Personal Protective Equipment (PPE).

The following icon may appear in the text of this document.



Identifies information that is useful and can help to make a process easier to do or easier to understand.

Rockwell Automation recognizes that some of the terms that are currently used in our industry and in this publication are not in alignment with the movement toward inclusive language in technology. We are proactively collaborating with industry peers to find alternatives to such terms and making changes to our products and content. Please excuse the use of such terms in our content while we implement these changes.

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Preface

About This Publication

This manual describes how to use PointMax™ EtherNet/IP™ adapters in Logix 5000® control systems. Use this manual in conjunction with the EtherNet/IP Network Devices User Manual, publication [ENET-UM006](#).

Make sure that you are familiar with the following:

- Use of a controller in a Logix 5000 control system
- Use of an EtherNet/IP network
- Studio 5000 Logix Designer® application environment

Summary of Changes

This publication contains the following new or updated information. This list includes substantive updates only and is not intended to reflect all changes. Translated versions are not always available for each revision.

Table 1. Summary of Changes

Topic
Added topic Set the Network Address with the DeviceTools Application on page 20
Updated topics:
<ul style="list-style-type: none"> • Protection Mode on page 11 • Configure the Ethernet Port Settings on page 26

Additional Resources

These documents contain additional information concerning related products from Rockwell Automation. You can view or download publications at rok.auto/literature.

Table 2. Additional Resources

Resources	Description
PointMax I/O System Specifications Technical Data, publication 5034-TD001	Provides PointMax I/O system specifications.
PointMax I/O System Installation Instructions, publication 5034-IN001	Provides instructions on installing a complete PointMax I/O system.
PointMax EtherNet/IP Adapter User Manual, publication 5034-UM001	Provides information on how to configure and operate PointMax EtherNet/IP adapters.
PointMax Digital I/O Modules User Manual, publication 5034-UM002	Provides information on how to configure and operate PointMax digital I/O modules.
PointMax Analog I/O Modules User Manual, publication 5034-UM003	Provides information on how to configure and operate PointMax analog I/O modules.
PointMax 4-Channel IO-Link Master Module User Manual, publication 5034-UM004	Provides information on how to configure and operate the PointMax IO-Link master module.

Table 2. Additional Resources (continued)

Resources	Description
PointMax Serial Module User Manual, publication 5034-UM005	Provides information on how to configure and operate the PointMax serial module.
PointMax High-speed Counter/SSI Encoder User Manual, publication 5034-UM006	Provides information on how to configure and operate the PointMax high-speed counter/SSI encoder module.
PointMax Analog HART I/O Module User Manual, publication 5034-UM007	Provides information on how to configure and operate the PointMax analog HART I/O module.
EtherNet/IP Network Devices User Manual, publication ENET-UM006	Describes how to configure and use EtherNet/IP devices to communicate on the EtherNet/IP network.
Ethernet Reference Manual, publication ENET-RM002	Describes basic Ethernet concepts, infrastructure components, and infrastructure features.
System Security Design Guidelines Reference Manual, publication SECURE-RM001	Provides guidance on how to conduct security assessments, implement Rockwell Automation® products in a secure system, harden the control system, manage user access, and dispose of equipment.
Safety Guidelines for the Application, Installation, and Maintenance of Solid-state Control, publication SGI-1.1	Designed to harmonize with NEMA Standards Publication No. ICS 1.1-1987 and provides general guidelines for the application, installation, and maintenance of solid-state control in the form of individual devices or packaged assemblies incorporating solid-state components.
Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1	Provides general guidelines for installing a Rockwell Automation industrial system.
Product Selection and Configuration tools website, rok.auto/systemtools	Helps configure complete, valid catalog numbers and build complete quotes based on detailed product information.
Product Certifications website, rok.auto/certifications	Provides declarations of conformity, certificates, and other certification details.

Download Firmware, AOP, EDS, and Other Files

You can download firmware, associated files (such as AOP, EDS, and DTM), and access product release notes from the Product Compatibility and Download Center at rok.auto/pcdc.

Terminology

This table defines the terms that are used in this publication.

Table 3. Terminology

Acronym	Full Term	Definition
BOOTP	Bootstrap Protocol	A computer networking protocol used to automatically assign an IP address to network devices from a configuration server.
BP	Backplane Power	Power that is generated from module power by the adapter and expansion power, and supplied to the I/O system through the backplane.

Table 3. Terminology (continued)

Acronym	Full Term	Definition
CIP™	Common Industrial Protocol	An industrial communication protocol that is used by Logix 5000® based automation systems on EtherNet/IP™, ControlNet®, and DeviceNet® communication networks.
CIP Sync™	Common Industrial Protocol Synchronization	CIP Sync provides the increased control coordination needed for control applications where absolute time synchronization is vital to achieve real-time synchronization between distributed intelligent devices and systems.
DHCP	Dynamic Host Configuration Protocol	A network protocol used to automate the process of assigning IP addresses and other network configuration parameters to devices on a network.
DLR	Device Level Ring	A network technology that takes advantage of embedded-switch functionality in automation devices.
MB	Mounting Base	A device that provides data and power connections from the backplane to the installed module.
MP	Module Power	Power that is supplied to the adapter and expansion power.
NFC	Near Field Communication	A short-range wireless technology that enables communication between two electronic devices over a distance of 4 cm (1.6 in.) or less.
ODVA	Open DeviceNet Vendor Association	A nonprofit association of vendors that are established for the promotion of CIP networks.
PRP	Parallel Redundancy Protocol	An EtherNet /IP specification used to create network redundancy by allowing PRP enabled devices to send duplicate Ethernet frames over two independent Local Area Networks (LANs).
RIUP	Removal and Insertion Under Power	A feature that enables the device to be connected and disconnected from the system without having to remove power from the system.
RPI	Requested Packet Interval	Time interval (usually in milliseconds) that users are requesting their data be exchanged at
RTB	Removable Terminal Block	A component that is used for wiring field devices to.
SA	Sensor Actuator	A term that is used to describe field-side devices.
SELV	Safety Extra Low Voltage	An electrical system where the voltage level is considered safe under normal or fault conditions, as defined in the EN and IEC standards.
XT	Harsh Environment	These modules have additional conformal coating and design considerations that add a greater degree of protection when exposed to harsh, corrosive environments.

PointMax EtherNet/IP Adapter Overview

PointMax I/O in a Logix 5000 Control System

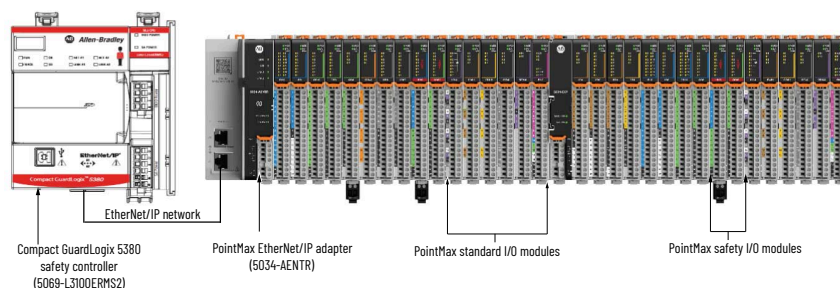
Logix 5000 controllers use PointMax standard and safety I/O modules to control devices in a control system. The controllers access the modules over an EtherNet/IP network. The PointMax I/O modules use mounting bases (MB) and removable terminal blocks (RTB) to connect field-side wiring.

I/O modules use the Producer/Consumer network communication model. This communication is an intelligent data exchange between modules and other system devices in which each module produces data without first being polled.

Use PointMax I/O modules as remote I/O modules that are accessible via an EtherNet/IP network. The modules are installed to the right of a PointMax EtherNet/IP adapter (when mounted in an upright horizontal orientation).

Logix 5000 controllers can exchange the data with the modules over an EtherNet/IP network. The below figure shows a Compact GuardLogix® 5380 safety controller with a PointMax EtherNet/IP adapter, and both standard and safety I/O modules. Safety controllers support both standard and safety PointMax I/O modules.

Figure 1. PointMax Standard and Safety I/O Modules in a Logix 5000 Control System



Controller and Software Compatibility

Controller and programming software compatibility requirements apply when you use PointMax digital I/O modules. A module type and how it is used affect which requirements apply.

You must use Studio 5000 Logix Designer application version 36 or later. For more information, see the Product Compatibility and Download Center at rok.auto/pcdc

Adapter Firmware Updates

EtherNet/IP adapters are manufactured with firmware installed. If updated firmware revisions are available in the future, you can update the firmware.

Firmware information for adapters is available at the Rockwell Automation Product Compatibility and Download Center (PCDC). The PCDC is available at: rok.auto/pcdc. At the PCDC, you can use the adapter catalog number to check for firmware updates. If the catalog number is not available, then no updates exist.

IMPORTANT: Only download firmware and access product release notes from the Rockwell Automation PCDC. Do not download firmware from non-Rockwell Automation sites.

Verify that the firmware revision of the adapter that you use is correct before commissioning the system. For more information on how to update your module firmware, see the ControlFLASH Plus Quick Start Guide, publication [CFP-QS001](#).

When the firmware update is in progress, you cannot perform the following operations:

- Firmware update progress
- Module connection request
- Adapter reset request



WARNING: When you update the PointMax EtherNet/IP adapter, the I/O modules in its chassis may reset and be unable to maintain their Program Mode or Inhibit states. Verify that all equipment controlled by the modules in this chassis are in a stopped state and that all safety critical functions are not affected.

Secure Access to the System

To secure access to the device by authorized users only, consider these options:

- Use passwords to help protect the source and execution of the control program.
- Remove the key from the controller.
- Implement physical barriers, such as locked cabinets.

To secure access to the system, consider these options:

- Follow industry best practices to harden your personal computers and servers, including anti-virus/anti-malware and application allow-list solutions.

The recommendations are published at the Rockwell Automation technical support center in Knowledgebase Technote [Rockwell Automation Customer Hardening Guidelines](#).

- Develop and deploy backup and disaster recovery policies and procedures. Test backups on a regular schedule.
- Minimize network exposure for all control system devices and systems, and confirm that they are not accessible from the Internet.
- Locate control system networks and devices behind firewalls and isolate them from the business network.
- Subscribe to the Knowledgebase Technote [Security Advisory Index](#), so you have access to information about security matters that affect Rockwell Automation products.

Follow recommended network practices for products with network interfaces, such as communication ports or web servers. These practices help minimize risk or exposure by unauthorized activity or users. For more information, see:

- Converged Plantwide Ethernet (CPwE) Design and Implementation Guide, publication [ENET-TD001](#)
- EtherNet/IP Network Devices User Manual, publication [ENET-UM006](#)
- Configure System Security Features User Manual, publication [SECURE-UM001](#)

PointMax Adapter Features

- A PointMax adapter performs the following functions:
- Facilitates high-speed data transfer between some Logix 5000 controllers and remote I/O modules
 - Provides system-side and field-side power to PointMax I/O modules
 - Connects to multiple EtherNet/IP network topologies
 - Supports PRP network
 - Operates as a DLR supervisor
 - Supports PRP/DLR network status monitoring
 - Supports Time Sync
 - Supports Implicit and Explicit Protection Modes
 - Supports secure web server
 - Provides web server and SNMP enable and disable features
 - Supports mounting base diagnostics
 - Supports XT chassis status reporting
 - Supports High Availability controllers

Electronic Keying

Electronic Keying reduces the possibility that you use the wrong device in a control system. It compares the device that is defined in your project to the installed device. If keying fails, a fault occurs. These attributes are compared.

Attribute	Description
Vendor	The device manufacturer
Device Type	The general type of the product, for example, an I/O module
Product Code	The specific type of the product. The Product Code maps to a catalog number
Major Revision	A number that represents the functional capabilities of a device
Minor Revision	A number that represents behavior changes in the device

Table 4. Electronic Keying Options

Keying Option	Description
Compatible Module	Lets the installed device accept the key of the device that is defined in the project when the installed device can emulate the defined device. With Compatible Module, you can typically replace a device with another device that has the following characteristics: <ul style="list-style-type: none">• Same or compatible catalog number• Same or higher Major Revision

Table 4. Electronic Keying Options (continued)

Keying Option	Description
	<ul style="list-style-type: none"> Minor Revision as follows: <ul style="list-style-type: none"> If the Major Revision is the same, the Minor Revision must be the same or higher. If the Major Revision is higher, the Minor Revision can be any number. You can use an XT version of the module in place of a non-XT module or non-XT version of the module in place of XT module.
Disable Keying	<p>Indicates that the keying attributes are not considered when attempting to communicate with a device. With Disable Keying, communication can occur with a device other than the type specified in the project.</p> <hr/> <div>  <p>ATTENTION: Be cautious when using Disable Keying; if used incorrectly, this option can lead to personal injury or death, property damage, or economic loss.</p> <p>We strongly suggest that you do not use Disable Keying.</p> <p>If you use Disable Keying, you must take full responsibility for understanding whether the device being used can fulfill the functional requirements of the application.</p> </div> <hr/>
Exact Match	<p>Indicates that all keying attributes must match to establish communication. If any attribute does not match precisely, communication with the device does not occur.</p> <p>When XT module is configured in Studio 5000 Logix Designer application project, only XT Module residing on XT MB is considered as Exact Match. When non-XT module is configured, only non-XT module (with any MB) is considered as exact match.</p>

Carefully consider the implications of each keying option when selecting one.

IMPORTANT: Changing Electronic Keying parameters online interrupts connections to the device and any devices that are connected through the device. Connections from other controllers can also be broken.

If an I/O connection to a device is interrupted, the result can be a loss of data.

For more detailed information on Electronic Keying, see Electronic Keying in Logix 5000 Control Systems Application Technique, publication [LOGIX-AT001](#).

Protection Mode

Protection mode is a state where the device is operational but has implemented defenses against disruptive changes that could take the product out of service.

Implicit Protection Mode

Implicit protection mode helps prevent configuration changes that can affect system behavior and cause unintended and unforeseen changes. This security enhancement is automatically triggered as soon as one of the following occurs:

- When the adapter has an open Status connection
- When an I/O module in the chassis has an open I/O connection

In protection mode, the device deactivates services that could disrupt the operation of the device. For example, some configuration operations or firmware updates are disabled to not impact the operation of the device.

When the device is in protection mode, the mode prevents the following actions:

- Change Ethernet port configuration settings
- Change of NFC mode
- Change network address IP settings
- Disable or re-enable Ethernet ports
- Update the adapter firmware
- Perform any adapter resets
- Change configuration
- Disable or enable the web server
- Disable or enable the SNMP server
- Update the web server configuration pages

Explicit Protection Mode

Explicit protection mode is an additional security enhancement which is triggered when explicitly enabled. This security enhancement occurs at the module level and helps prevent unauthorized configuration changes that can affect system behavior and cause unintended and unforeseen changes.

When the device is in explicit protection mode, only certain requests and configuration changes are accepted until explicit protection mode is explicitly disabled.

The device enters explicit protection mode when rotary switches are set to value 900 during powerup. To enable explicit protection mode, do the following:

1. Note the current position of the rotary switches.
2. Power down the device.
3. Set the rotary switches to 900, then power up the device.
The device confirms explicit protection mode with the following status indicator flashing sequence:
 - Module status indicator = Flashing red
 - All other status indicators = Off
4. Power down the device and restore previous values to the rotary switches.
5. Power up the device to normal operation with Explicit Protection Mode enabled.

To disable explicit protection mode, do the following:

1. Note the current position of the rotary switches.
2. Power down the device.
3. Set the rotary switches to 000, then power up the device.
The device confirms exiting explicit protection mode with the following status indicator flashing sequence:
 - Module status indicator = Flashing red
 - All other status indicators = Off
4. Power down the device and restore previous values to the rotary switches.
5. Power up the device to normal operation with Explicit Protection Mode disabled.

Enable or Disable HTTPS Server (Web Server) and SNMP Server

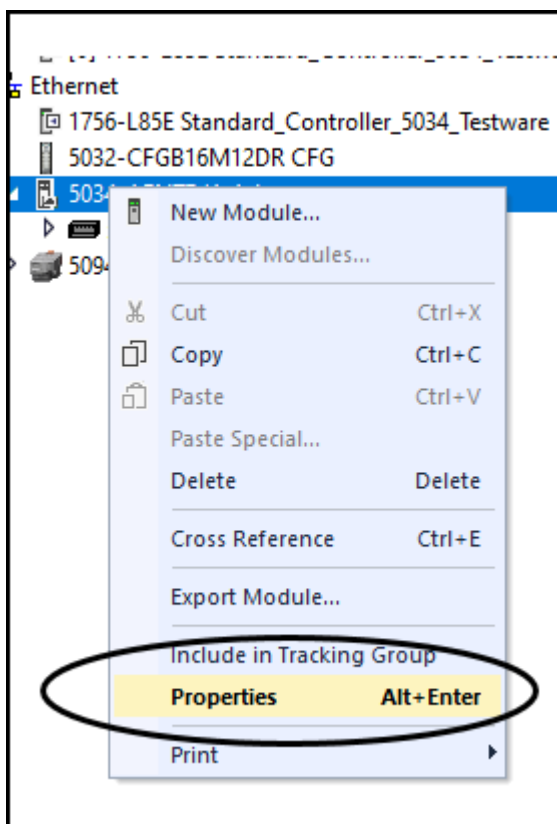
You can enable or disable the HTTPS server and SNMP server as an added security feature. The HTTPS server and SNMP server are disabled by default. Disabling these servers in conjunction with using the Explicit Protection Mode decreases the possibility of a security breach.

Enable the HTTPS Server in Studio 5000 Logix Designer Application

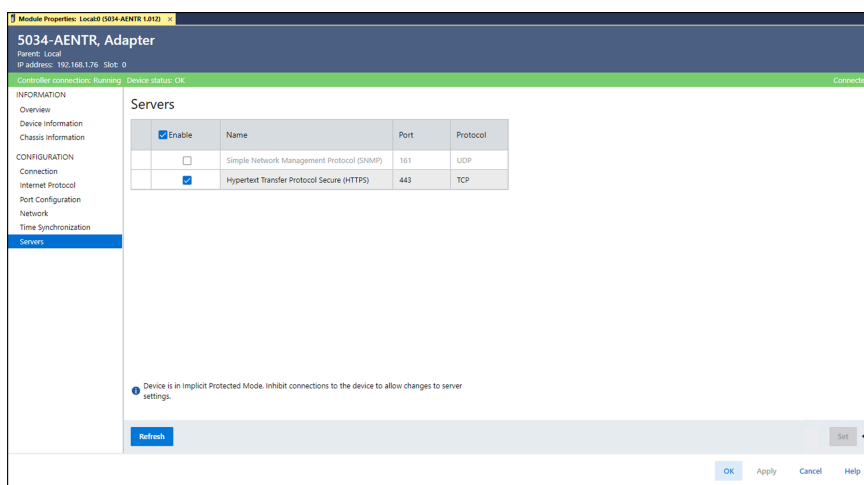
To change the settings in the Add-on Profile Server pages, make sure that the adapter is not in Explicit Protection Mode. To exit Explicit Protection Mode, see Protection Mode on page .

Enable the HTTPS Server in Studio 5000 Logix Designer

1. In Studio 5000 Logix Designer application, select the adapter device from the Controller Organizer pane.
2. Right-click on the adapter and select Properties.



3. On the Modules Properties dialog, select Servers.



4. Enable the Hypertext Transfer Protocol Secure (HTTPS).
5. Select Apply to accept the changes. You do not need to cycle power to the adapter.



ATTENTION: In order to decrease the possibility of a security breach, use Explicit Protection Mode and do not enable the HTTPS server.

Enable the SNMP Server in Studio 5000 Logix Designer Application

To change the settings in the Add-on Profile Server pages, make sure that the adapter is not in Protection Mode.

1. In Studio 5000 Logix Designer application, select the adapter device from the Controller Organizer pane.
2. Right-click on the adapter and select Properties.
3. On the Module Properties dialog, select Servers.
4. Enable the Simple Network Management Protocol (SNMP).
5. Select Apply to accept the changes. You do not need to cycle power to the adapter.



ATTENTION: In order to decrease the possibility of a security breach, use Explicit Protection Mode and do not enable the SNMP server.



See Knowledgebase article SNMP Password and MIB Configuration, Document ID [0A50173](https://rockwellautomation.com/knowledgebase/articles/0A50173) available at Rockwell Automation technical support center for more information. To access technical support center, go to rok.auto/knowledgebase.

PointMax Adapter Power Requirements

Power I/O Modules and Field-side Devices

The adapters provide power to the I/O modules and lets them transfer data and execute logic.

- System-side power powers the system and its modules. System-side power is also known as Backplane power.
- Field-side power powers field-side devices that are connected to some PointMax I/O modules. Field-side power is also known as SA power.
- All PointMax I/O modules maintain internal electrical isolation between the system-side and field-side power buses.

System power begins at the EtherNet/IP adapter and passes across the I/O module internal circuitry via power buses. The MOD power bus and SA power bus are isolated from each other.



ATTENTION: Power to this equipment and all connected I/O must be supplied from a source that is isolated from Mains power via a SELV power supply.

System-side power, that is, Backplane power begins at the PointMax EtherNet/IP adapter and passes through the mounting bases. It can be regenerated by installing a 5034-EXP or 5034-EXPXT expansion power after 16 modules.

Field-side power, that is, SA power begins at the PointMax EtherNet/IP adapter and passes through the mounting bases. You can install a 5034-MBSA or 5034-MBSAXT mounting base to start a new SA power domain.

SA Power Requirements

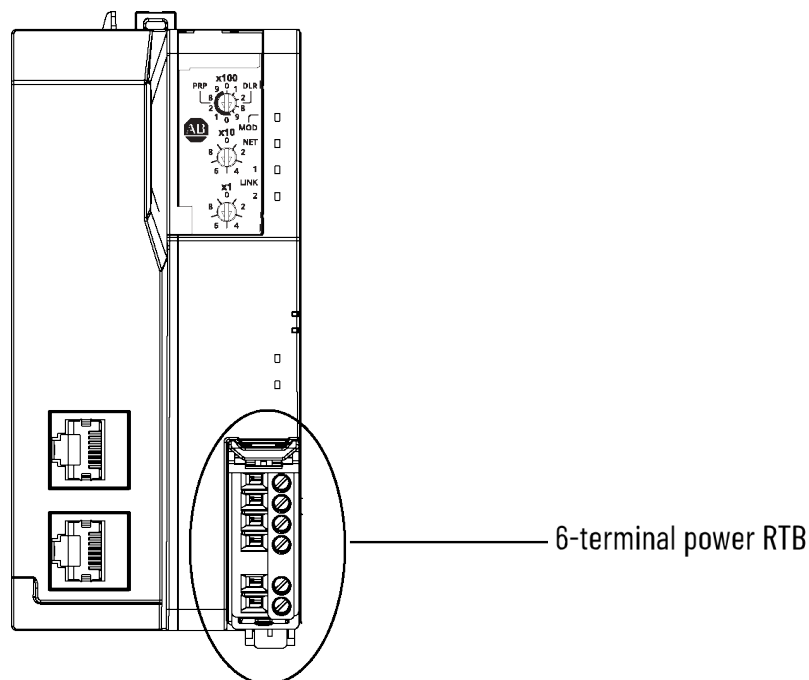
- You must limit the SA field-side power source to 10 A, max, at 18...30V DC.
- You must use SELV-listed power supplies for SA power.

Power Connectors

Connect the external power supply to the removable terminal block (RTB) to provide MOD power and SA power. The adapters use different RTBs to connect power.

PointMax EtherNet/IP adapters use one 6-terminal power RTB.

Figure 2. PointMax EtherNet/IP Adapter Power Connection



For more information on how to connect MOD power, see the PointMax I/O System Installation Instructions, publication [5034-IN001](#).

Module Power (MP)

MP power is required in a PointMax I/O system.

PointMax EtherNet/IP adapters provide power to a PointMax I/O system via an adapter RTB that is connected to an external power supply and installed on the adapter. The adapter RTB provides module power to the system. Module power refers to system-side power that is used to operate the PointMax I/O system.

- You must limit the MP power source to 18...30V DC. The rated current should be at least 850 mA (maximum limit of 10 A). The inrush current handling capability should be at least 6 A for 10 ms.

For more information, see Switched Mode Power Supply Specifications Technical Data, publication [1606-TD002](#).

- You must use SELV-listed or PELV-listed power supplies for MP power.

Sensor Actuator (SA) Power

SA power is field-side power that is connected to the adapter, 5034-MBSA mounting base, or 5034-EXP module. It powers devices that are connected to the I/O modules.

- You must limit the SA Power source to 10 A, max, at 18...30V DC.

For more information, see Switched Mode Power Supply Specifications Technical Data, publication [1606-TD002](#).

- You must use SELV-listed or PELV-listed power supplies for SA power.
- You must connect SA power for safety I/O modules to provide the required safety function.

Backplane Power (BP)

The backplane power is generated from module power by the adapter and expansion power . It internally powers the I/O modules in the system.

Connect to the EtherNet/IP Network

You can set the network address using one of these methods:

- [Set the Network Address with the Rotary Switches on page 19](#)
- [Set the Network Address with FactoryTalk Linx Software on page 20](#)
- [Set the Network Address with the DeviceTools Application on page 20](#)

You must set the network address on the adapter for the adapter to operate on an EtherNet/IP network.

The following are adapter conditions in which you set the network address:

- Set the network address for the first time after it powers up in the out-of-box state.

IMPORTANT: The adapter powers up in the out-of-box state the first time you install it.

- Change the IP address after it has been set.

IMPORTANT: Verify that the network address for the adapter is not a duplicate of any existing devices on the network.

Requirements

To set the network address, have the following:

1. The MAC ID that is located below the QR code on the adapter
2. The recommended IP address for the adapter

Set the Network Address

When the adapter is in the out-of-box state, the following apply regarding network addresses:

- The adapters ship without a network address.
- The rotary switches on the PointMax adapter are set to 999 and DLR.
- The adapter is DHCP-enabled which means the adapter is configured to obtain an network address via a DHCP server.
- If there is no DHCP server or the DHCP server is not configured to set the network address, you must set the network address manually.
- The adapter issues requests for an network address via DHCP until an network address is set by using one of the tools that are described in this section.
- The adapter is configured so that it must obtain the network address over DHCP each time that power is cycled.
- You can change the adapter configuration so that it is not required to obtain the network address over DHCP each time that power is cycled.

PointMax adapters support the following methods to set/change the network address:

- Rotary Switches
- FactoryTalk® Linx Software
- BOOTP/DHCP utility
- EtherNet/IP commissioning tool
- Secure web server
- NFC technology via DeviceTools application

IMPORTANT: To use the BOOTP/DHCP tool, you must know the Ethernet hardware address (MAC ID) of your module. Rockwell Automation assigns each module a unique 48-bit hardware address at the factory. The address is printed on a label on the side of your module. It consists of six hexadecimal digits that are separated by colons. This address is fixed by the hardware and cannot be changed.

If you change or replace the module, you must enter the new Ethernet hardware address of the module when you configure the new module.

Set the Network Address with the Rotary Switches

If the network uses 192.168.1.x, use the rotary switches on the adapter to set the last octet of the network IP address. Valid numbers range from 001...254.

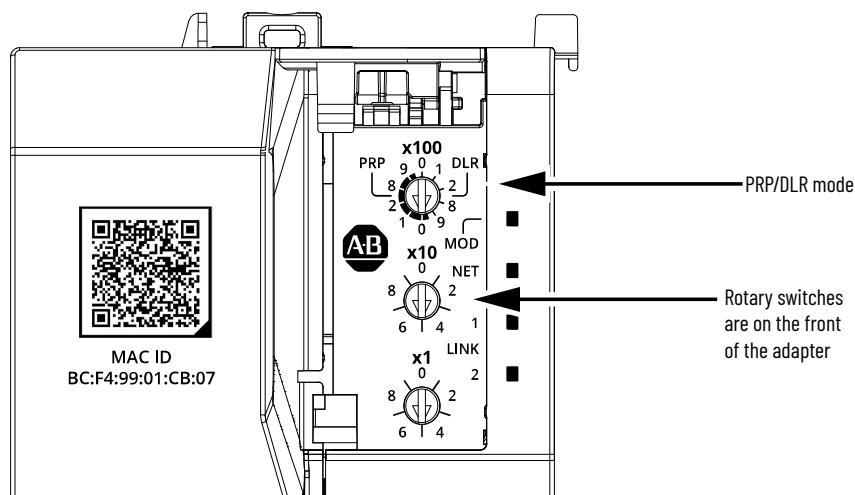
IMPORTANT: The rotary switches only set the IP address when power is cycled.



WARNING: When you change switch settings on the adapter while power is on, an electric arc can occur. This could cause an explosion in hazardous location installations. Be sure that power is removed or the area is nonhazardous before proceeding.

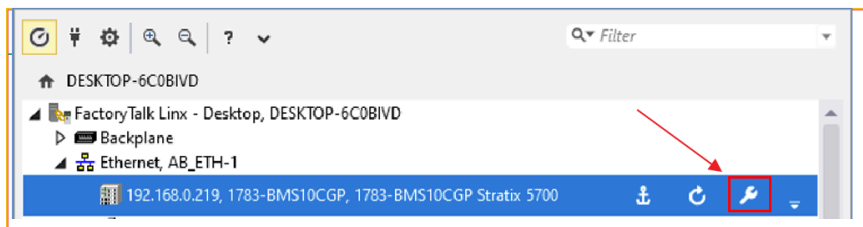
If you change the rotary switches when the device is powered up, a minor recoverable fault occurs on the device in order to alert you of an unexpected configuration change. The change will only take effect after cycling power or after a reset.

Rotary switches – The bottom switch represents the first digit in the octet, the middle switch represents the second digit, and the top switch represents the third digit.

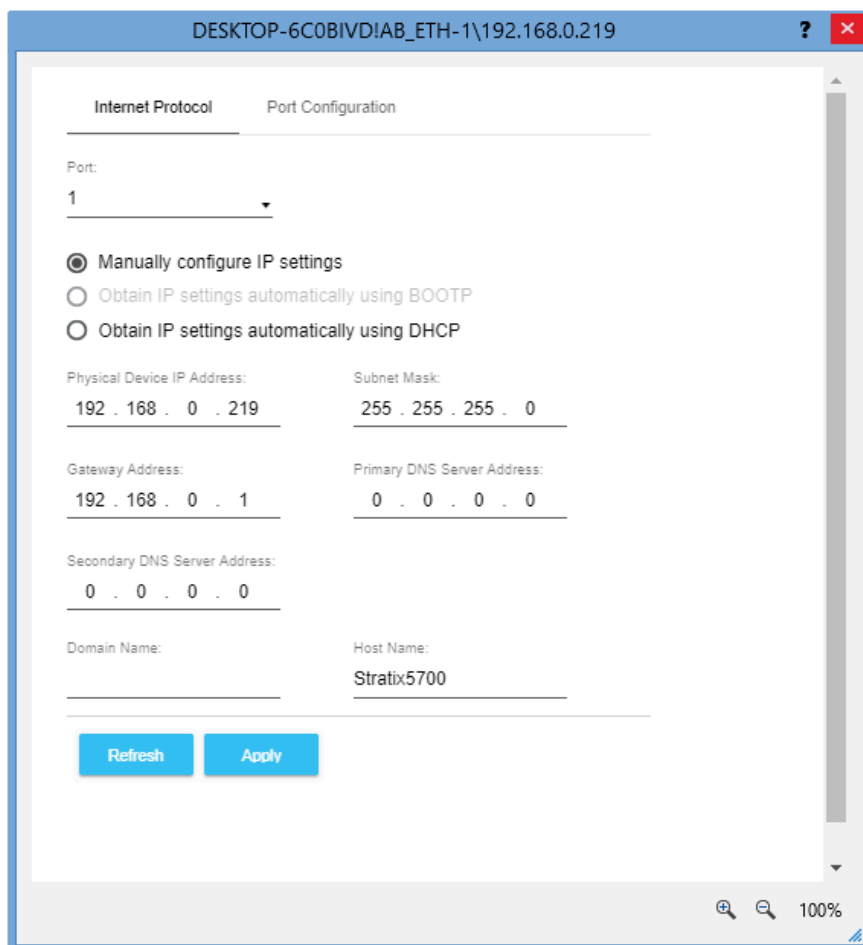


Set the Network Address with FactoryTalk Linx Software

1. Use the FactoryTalk Linx Network Browser to navigate to the device and select the wrench icon.



2. Enter the IP address settings.



Set the Network Address with the DeviceTools Application

The DeviceTools application (for Android and iOS devices) allows you to set the PointMax EtherNet/IP adapter network address using NFC. It also enables you to:

- Gain access to the device health, network status, and key parameters of adapter and of connected I/O modules
- Perform product registration by extracting serial number and catalog number

Download and Install DeviceTools Application

Download and install the DeviceTools application to set the network address of the PointMax EtherNet/IP adapter using NFC. For more information on using the DeviceTools application, see <https://rok.auto/devicetools>.

1. From Apple App Store® or from Google Play™, search for and install the free DeviceTools application by Rockwell Automation.



Icons and branding are subject to change. For the current icon and publisher information, see the store listing.

If your phone or operating system version is not compatible, the application does not download. Check the store listing for supported device and operating system versions.

2. After installation, launch the application and follow on-screen prompts. You can adjust language and appearance in **Settings**.

IMPORTANT: The PointMax EtherNet/IP adapter ships with NFC enabled. For security, disable NFC when not in use. You can disable NFC using the Studio 5000 Logix Designer application.

If NFC is disabled, to re-enable it, reset the adapter to its default settings. For more information see [Reset the Adapter on page 47](#).

To adjust the network address, do the following:

1. Open the DeviceTools application on a supported iOS or Android device.
2. Hold the device to the NFC logo (N) on the front of the adapter.
3. When the scan completes, the app displays the read/write options available for the adapter's current state, including IP configuration and device status.
4. Follow the prompts in the DeviceTools application to set the network address to a valid value.



WARNING: Operating a mobile device in a hazardous or explosive environment

Do not use a cellular phone in a hazardous or explosive environment unless the phone has been approved for use in such environments. Failure to comply with these guidelines can cause damage or unpredictable operation which could result in death or severe personal injury and/or property damage.

Select the Network Redundancy Mode

The PointMax EtherNet/IP adapter supports two types of network redundancy:

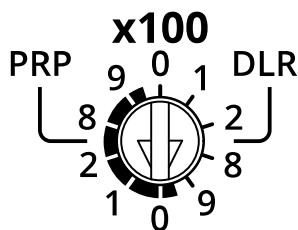
- DLR (Device Level Ring)
- PRP (Parallel Redundancy Protocol)

In these modes, all EtherNet/IP ports of the adapter are used to provide redundant network paths.

IMPORTANT: Make sure that both EtherNet/IP ports are enabled and configured correctly (recommended setting: auto-negotiation is ON).

To select one of the network redundancy modes, do the following:

1. Power down the adapter.
2. Use the PRP/DLR rotary switch to select the redundancy mode.



- The black x100 rotary switch positions on the left set the adapter to PRP mode.
 - The white x100 rotary switch positions on the right set the adapter to DLR mode.
3. Power up the adapter.

Before you select one of the redundancy modes, verify your network settings to determine the redundancy mode used by your network.

IMPORTANT: The rotary switches only set the IP address when power is cycled.

IMPORTANT: If you switch the adapter to a redundancy mode that is different from your network, the adapter disconnects from the network.

IMPORTANT: You cannot switch the network redundancy mode while the adapter is running. A minor recoverable fault occurs to warn about the unintentional change to the network redundancy mode.

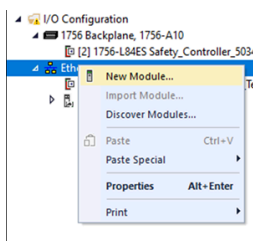
Configure the Adapter

After you install the EtherNet/IP adapter and set the IP address, you must add the adapter to a controller project. The project must be online to set the Speed and Duplex configurable parameters on the module.

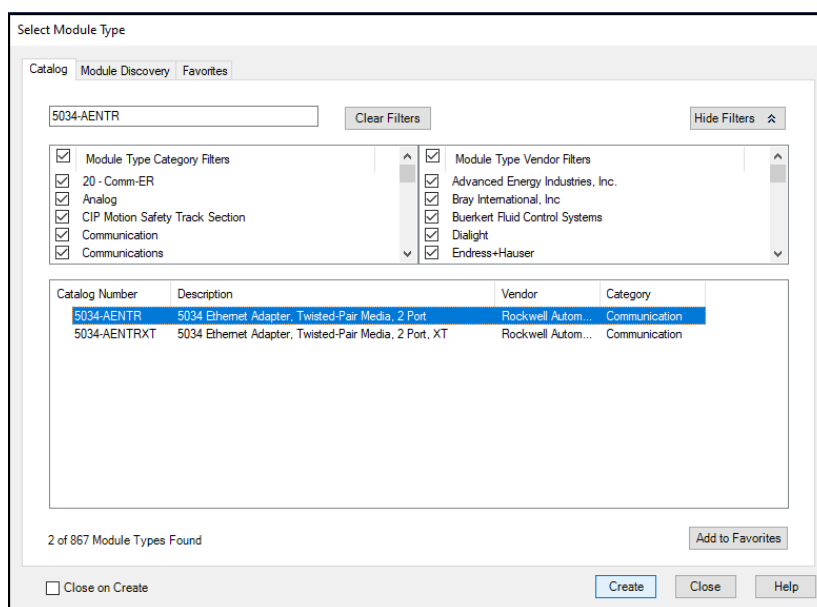
IMPORTANT: You must use the Studio 5000 Logix Designer application version 36 or later.

Add the Adapter to a Project

1. Verify that your project is online.
2. Right-click on your network port, and select New Module.



3. On the Select Module Type dialog, complete the following tasks:
 - a. In the search field, type the catalog number for your adapter.
This example uses the 5034-AENTR adapter.
 - b. Select your adapter from the search result.
For some modules, the Select Major Revision dialog can appear. If this dialog appears, choose the major revision of the module and select OK
 - c. Select Create.



4. From the Device definition dialog, complete the following:
- a. Enter a name for your adapter.
 - b. Enter the IP address in the Ethernet Address field.
 - c. Set appropriate firmware revision of your adapter. Use the left and right dropdowns under the Revision.

Option	Description
Major revision (left dropdown menu)	This field only displays the major revisions that are applicable to the selected series. This field appears dimmed when online unless the module supports allowing major revision changes to be made while online.
Minor revision (right field)	Sets the minor revision of the module. The valid range is 1...255. This field is enabled while offline, and in the Program, Remote Program, and Remote Run modes. It appears dimmed in Run mode or when the Electronic Keying is set to Disable Keying.

Device definition

Device type:
5034-AENTR 5034 Ethernet Adapter, Twisted-Pair Media, 2 Port

Change type..

Name:*
5034_Adapter

Description:

Ethernet Address:*
IP address 192 . 168 . 1 . 182

Slot:
0

Series:
A

Revision:
1 . 001

Electronic keying:
Compatible Module

Connection:*
None

Automatic Diagnostics not available with "None" selected

Network mode:
None

Chassis size:
33

Expansion Power Supply required after Slot 16

OK

Cancel

Help

- d. Select the appropriate the Electronic Keying setting.

Attribute	Description
Vendor	The device manufacturer
Device Type	The general type of the product, for example, digital I/O module.
Product Code	The specific type of the product. The Product Code maps to a catalog number.

Attribute	Description
Major Revision	A number that represents the functional capabilities of a device.
Minor Revision	A number that represents behavior changes in the device.

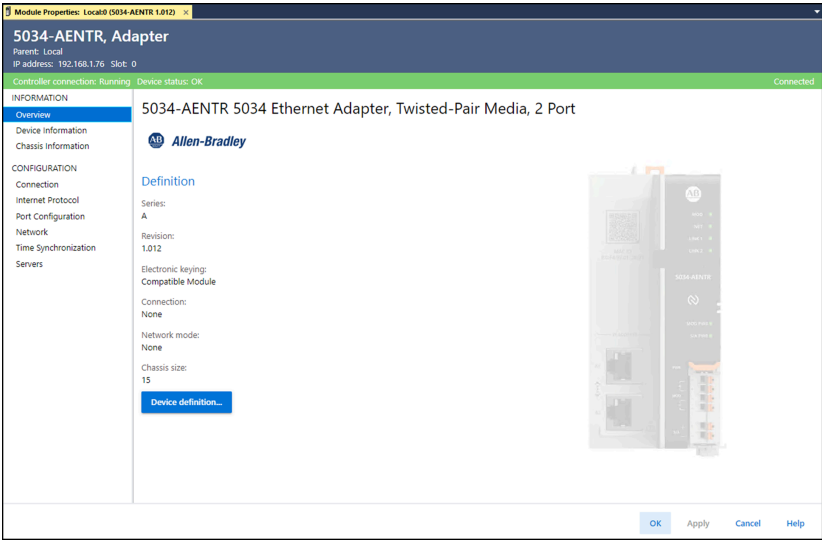
- e. Select the connection type from the Connection type dropdown list.

Connection Options	Description
None	No direct connection from the controller (Originator) to the adapter.
Status	Reports the device status.

- f. Select the network mode from the Network mode dropdown list.

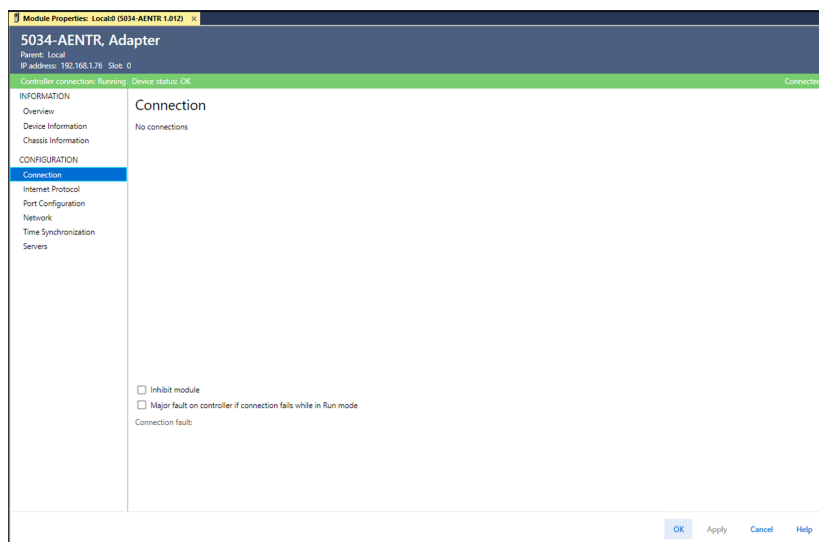
Network Mode Options	Description
Device Level Ring (DLR)	Provides redundant paths.
Parallel Redundancy Protocol (PRP)	Duplicated data at the physical level for each path.

- g. Set the Chassis size to the number of modules including the adapter. For example, one adapter with 32 I/O modules is considered as Chassis size 33.
- h. Select OK. If you set the Connection to Status, select Yes on the Apply changes dialog.



5. On the New Module dialog, select the Connection from Configuration and complete the following tasks:
 - a. Set the Requested Packet Interval (RPI). The acceptable range is 25.0...750.0 ms, with 200.0 ms as the default. This connection is for status data only, with no I/O.
 - b. Set the Connection over Ethernet/IP to Unicast or Multicast from the dropdown list.

For non-redundant controllers, the default value is Unicast when the target device supports unicast. Otherwise, the default value is Multicast. For redundant controllers, the default value is Multicast when the target device supports multicast. Otherwise, the default value is Unicast.

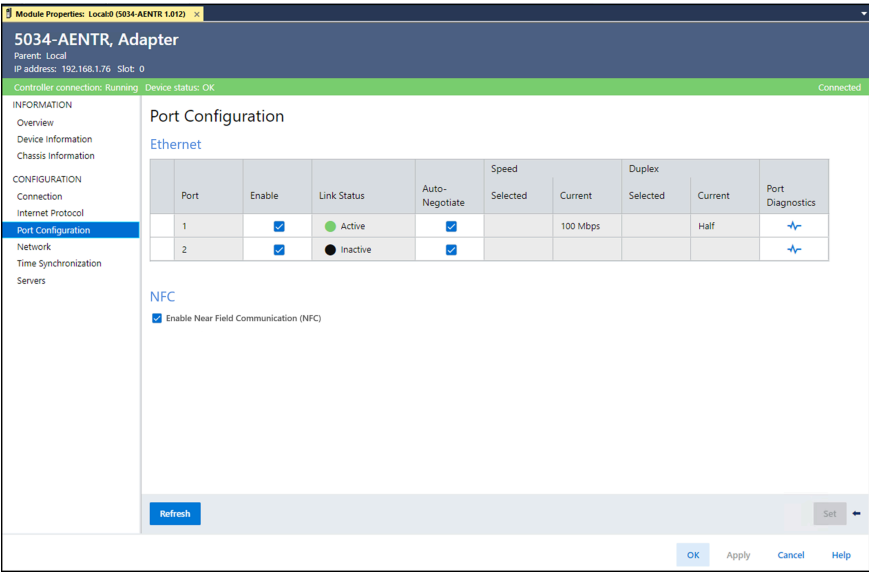


- c. Select OK.
 6. Save the project.
 7. If the project does not have a communication path to the controller, select Browse to create a path.
 8. On the Who Active dialog, choose the desired path and select Set Project Path and close the dialog.
 9. Verify that the controller mode switch is in the PROG mode position.
 10. Right-click on the Controller Status icon, and select Go Online.
 11. On the Connected To Go Online dialog, select Download.
 12. Confirm that you want to download the project.
- The project downloads to the controller. The Connected To Go Online dialog closes when the download is complete.

Configure the Ethernet Port Settings

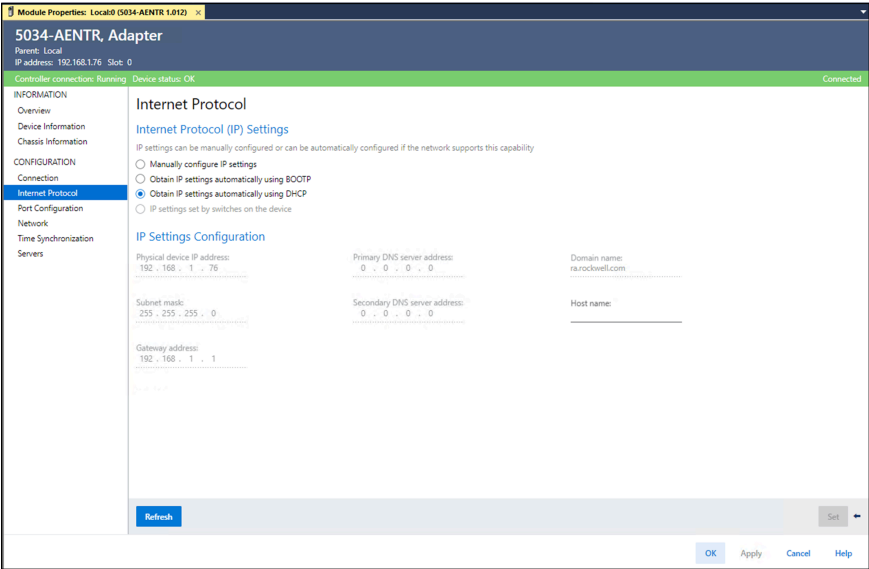
If you did not already configure the Ethernet port speed and duplex settings with FactoryTalk Linx software, complete these tasks:

1. Put the controller mode switch in the REM position.
2. Change the Studio 5000 Logix Designer application project to Run Mode. When prompted to change the controller mode to Remote Run, select Yes.
3. Right-click on your adapter, and select Properties.
4. From the Device Information view, select Port Configuration.



Desired Task	Action
Let the module automatically set the port speed and duplex settings.	Leave the Auto-Negotiate checkboxes selected.
Manually configure your port speed and duplex settings.	Follow these steps: <div><div>a. Clear the Auto-Negotiate checkbox.</div><div>b. Under Speed category Selected column, select the port speed from the dropdown list.</div><div>c. Under Duplex category Selected column, select Full from the dropdown list to set the port to full-duplex mode.</div></div>
Disable NFC functionality.	Clear the Enable Near Field Communication (NFC) checkbox.

5. From the Module Properties view, select Internet Protocol.

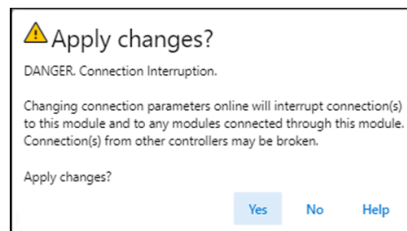


If needed, you can set Internet Protocol properties such as:

- Domain Name
- Host Name
- Gateway Address
- Primary DNS Server Address
- Secondary DNS Server Address

6. On the Module Properties dialog, select OK.
-

IMPORTANT: If you try to change the IP address on this page, the following alert appears:



-
7. Save the project.

PointMax Adapter Troubleshooting

You can use the following methods to troubleshoot your PointMax adapter:

- Adapter Status Indicators
- Studio 5000 Logix Designer application

Troubleshoot with Status Indicators

EtherNet/IP communication modules have bi-color status indicators to assist with diagnostics.

Figure 3. PointMax EtherNet/IP Adapter Status Indicators

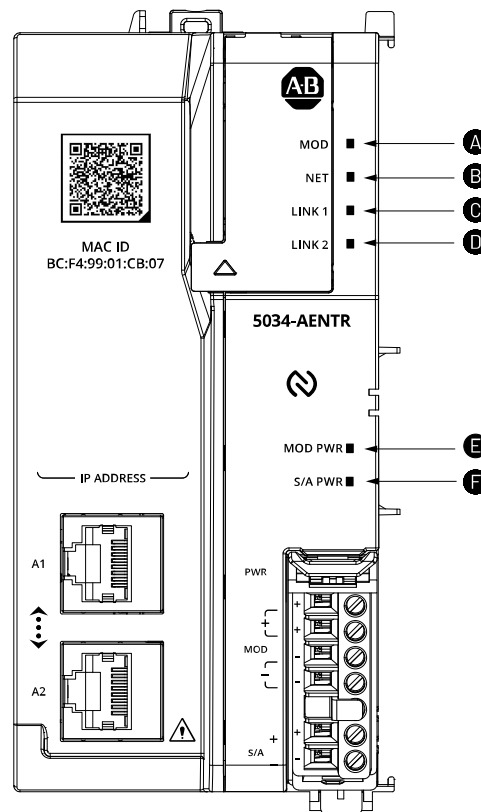


Table 5. A - Module Status Indicator

Indicator State	Description	Recommended Action
Off	The adapter is not powered.	Apply power as necessary.
Steady green	The adapter is operational.	None
Steady red	The adapter is in power up state or in a unrecoverable fault state.	Cycle power to the module. If the fault persists, replace the adapter.
Flashing red/green	The adapter is in self-test mode.	None

Table 5. A - Module Status Indicator (continued)

Indicator State	Description	Recommended Action
Flashing red	The adapter is in one of the following states: <ul style="list-style-type: none"> Factory default power up Recoverable fault Firmware update in progress 	Complete one of the following: <ul style="list-style-type: none"> Wait for the firmware update to finish. Cycle power to the module.
Flashing green	The adapter is in standby mode.	Establish connections as required by the project.

Table 6. B - Network Status Indicator

Indicator State	Description	Recommended Action
Off	The network is in one of the following states: <ul style="list-style-type: none"> The adapter is not powered. The adapter is powered but there is no IP address configured. 	One of the following: <ul style="list-style-type: none"> Apply power as necessary. Configure the device or assign an IP address.
Steady green	A network connection is established and at least one CIP connection is established.	None
Steady red	A duplicate network address is detected.	Troubleshoot the issue and remedy the cause. For example, if a duplicate IP address condition exists, determine which devices on the network use the same IP address and change the IP addresses to unique values.
Flashing red/green	The adapter is performing power-on self-test (POST).	None
Flashing red	The network connection has timed out.	Verify that the Ethernet cables are connected.
Flashing green	A network address is configured but there are no CIP connection established.	Establish connections as required by the project.

Table 7. C - LINK 1 Network Status Indicator

Indicator State	Description	Recommended Action
Off	No Ethernet cable is connected.	Verify that the Ethernet cables are properly seated in the Ethernet port.
Flashing green	Communication is active through the connect Ethernet cable.	None

Table 7. C - LINK 1 Network Status Indicator (continued)

Indicator State	Description	Recommended Action
Flashing red	The adapter is operating in PRP mode and a LAN A warning has occurred.	None

Table 8. D - LINK 2 Network Status Indicator

Indicator State	Description	Recommended Action
Off	The network is in one of the following states: <ul style="list-style-type: none"> No Ethernet cable is connected The adapter is the active ring supervisor in a DLR network and has detected a rapid ring fault. 	Complete one of the following: <ul style="list-style-type: none"> Verify that the Ethernet cables are properly seated in the Ethernet port. If the port is disabled due to rapid ring faults, troubleshoot the cause of the fault and remedy it.
Flashing green	Communication is active through the connect Ethernet cable.	None
Steady green	The adapter is the active ring supervisor in a DLR network and the ring is not broken.	None
Flashing red	The adapter is operating in PRP mode and a LAN B warning has occurred.	None

Table 9. E - Module Power Status Indicator

Indicator State	Description	Recommended Action
Off	Module power is not available.	Apply power as necessary.
Steady green	Module power is available.	None

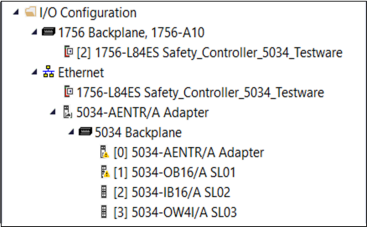
Table 10. F - SA Power Status Indicator

Indicator State	Description	Recommended Action
Off	SA power is not available.	Apply power as necessary.
Steady green	SA power is available.	None

Troubleshoot with Studio 5000 Logix Designer

Check the Controller Organizer to see if there is a warning icon on the adapter.

Figure 4. Warning Icon in Controller Organizer



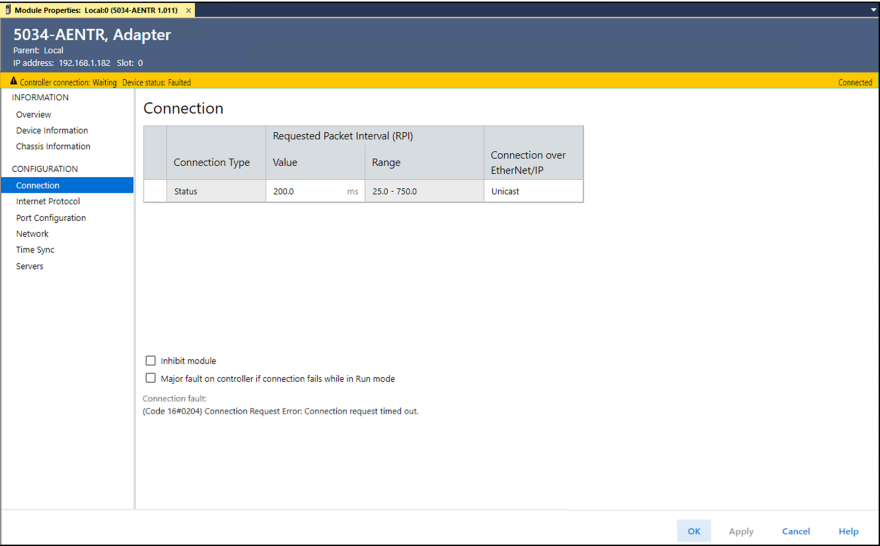
If a warning icon is present, open the Module Properties and check the status bar to identify the type of fault.

Figure 5. Fault Message in Status Bar



If connection is faulted, go to the Connection view and check the error code in the Connection Fault area.

Figure 6. Connection Fault Description with Error Code

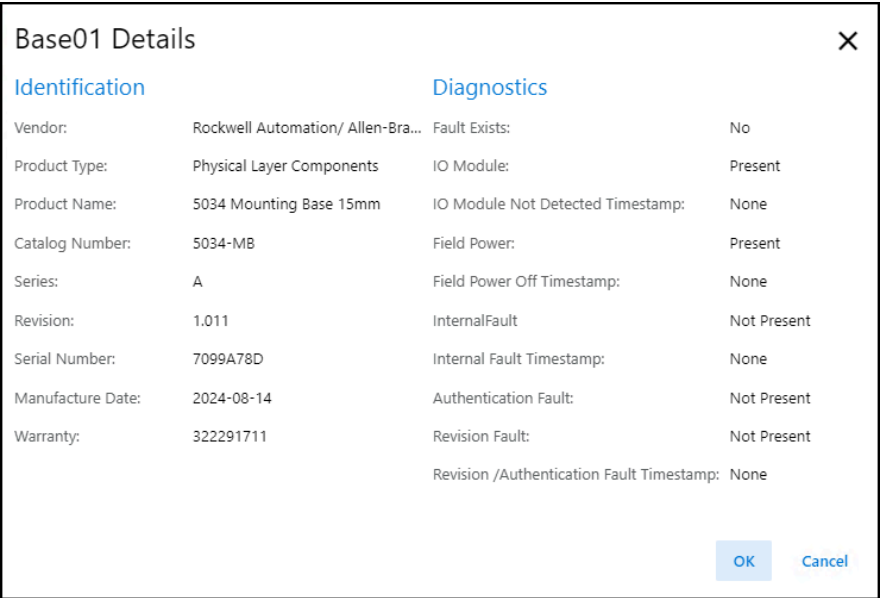


Error Code	Action
0x204	<div>1. Open the adapter module properties.</div> <div>2. Go to Chassis Information view and check the base status. If there is a fault, check the base details to identify the fault.</div>
Keying Error	<div>Go to Device Information view to confirm that the physical module is compliant or matches the configured identity.</div> <div>For more information, see Electronic Keying in Logix 5000 Control Systems Application Technique, publication LOGIX-AT001.</div>

Error Code	Action
0x10	<div>Go to Device Information view and check the firmware revision and major fault status.</div> <div><ul style="list-style-type: none">• If firmware update is required, update the firmware.• If the major fault is recoverable, reset the adapter.• If the major fault is unrecoverable, replace the adapter.</div>

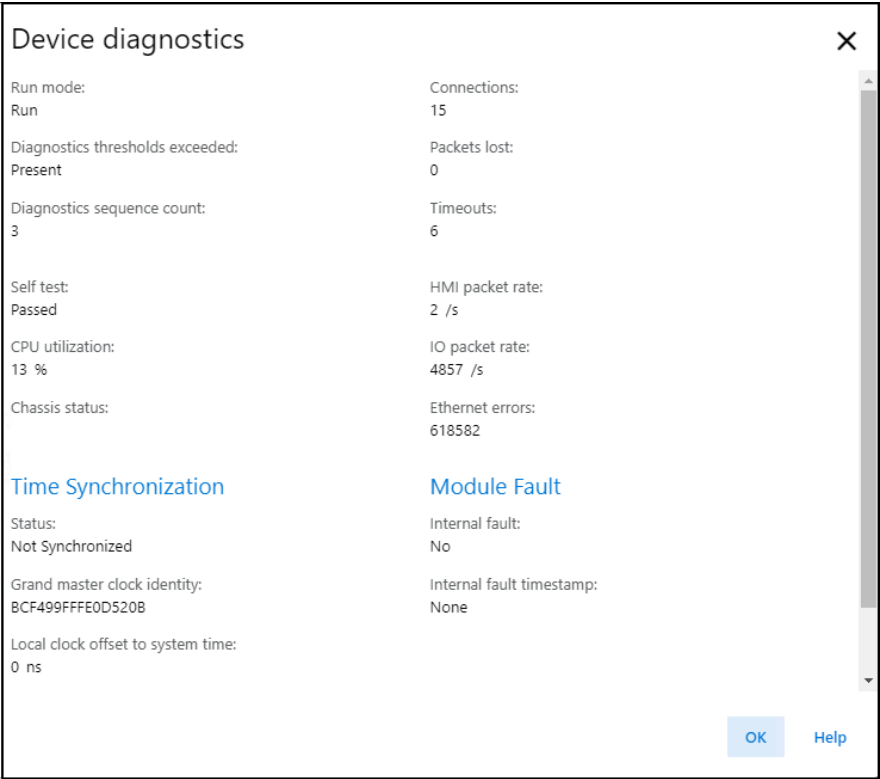
If a base is faulted, go to the Base Details view and check the Diagnostics for the base to see the diagnostic condition.

Figure 7. Base Details Diagnostics



If a Time Sync fault is present, go to the Device Diagnostics dialog to check the Time Synchronization status and Grandmaster clock identity.

Figure 8. Device Diagnostics



The Grandmaster clock identity must match with the network Grandmaster clock identity. Also, check the Time Synchronization status of the adapter in the adapter Device Diagnostics dialog.

Adapter Status Tags

The 5034-AENTR has system tags for DLR and PRP modes.

Table 11. Adapter Status Tags

Name	Data Type	Definition	Valid Values
RunMode	BOOL	The modules operating state	<ul style="list-style-type: none"> 0 = Idle 1 = Run
ConnectionFaulted	BOOL	Indicates if a connection to the target is running. The module always returns a zero in this member. The controller overwrites the zero with a one when the connection is not up.	<ul style="list-style-type: none"> 0 = Connection is running 1 = Connection is not running
DiagnosticActive	BOOL	Indicates if any diagnostics are active or the prognostics threshold is reached.	<ul style="list-style-type: none"> 0 = No diagnostics are active 1 = One or more diagnostics are active or the prognostics threshold is reached.
CIPSyncValid	BOOL	Indicates if the module is synced with a 1588 master. A set bit alone cannot indicate that it is synced to the same master clock of the owner controller. You must compare the Grandmaster Clock ID of both the module and the owner controller. For more information, see Troubleshoot with Studio 5000 Logix Designer on page 31 .	<ul style="list-style-type: none"> 0 = CIP Sync is not available 1 = CIP Sync is available
CIPSyncTimeout	BOOL	Indicates if the module was once synced with a 1588 master, but is not now due to a timeout.	<ul style="list-style-type: none"> 0 = A valid time master has not timed out 1 = A valid time master was detected on the backplane, but the time master has timed out. The module is using its local clock and can be drifting away from the last known time master.
DiagnosticSequenceCount	SINT	Increments for each time a distinct diagnostic condition is detected, and when a distinct diagnostic condition transitions from detected to not detected.	-128...+127

Table 11. Adapter Status Tags (continued)

Name	Data Type	Definition	Valid Values
			The value of 0 is skipped except during module powerup.
Portxx.Fault	BOOL	Displays whether one or more internal diagnostics indicate an internal issue in the numbered Ethernet port.	<ul style="list-style-type: none"> 0 = No internal issue found 1 = One or more of several internal diagnostics indicate an internal issue
Portxx.Uncertain	BOOL	Indicates that the numbered Ethernet port data can be inaccurate but the degree of inaccuracy is not known.	<ul style="list-style-type: none"> 0 = Good data 1 = Uncertain data
Portxx.Connected	BOOL	Indicates if the numbered Ethernet port is active.	<ul style="list-style-type: none"> 0 = Ethernet port is not active 1 = Ethernet port is active
Portxx.FullDuplex	BOOL	Indicates if the numbered Ethernet port is running in full-duplex mode or half-duplex mode (if it is connected).	<ul style="list-style-type: none"> 0 = Ethernet port is running in half-duplex mode. 1 = Ethernet port is running in full-duplex mode.
Portxx.AutonegotiationStatus	SINT	Indicates the status of link auto-negotiation.	<ul style="list-style-type: none"> 0 = Auto-negotiation in progress 1 = Auto-negotiation and speed detection failed. Using default values for speed and duplex. Default values are product-dependent. Recommended defaults are 10 Mbps and half-duplex. 3 = Successfully negotiated speed and duplex mode 4 = Auto-negotiation not attempted. Forced speed and duplex mode.
Portxx.Speed	INT	Indicates the actual port speed in Mbps.	<ul style="list-style-type: none"> 10 100 1000
Statistics.TCPConnections	INT	The number of TCP/IP connections currently open to the adapter	All values
Statistics.CIPConnections	INT	The number of CIP connections currently open to and through the adapter	All values
Statistics.CIPLostPackets	DINT	A running sum of the number of Sequenced Address Item Sequence Numbers that are skipped in Class 0 and Class 1 connections that are consumed by the adapter and its children.	All values
Statistics.CIPTimeouts	DINT	A running count of the number of connections to and through the adapter that time out.	All values

Table 11. Adapter Status Tags (continued)

Name	Data Type	Definition	Valid Values
Statistics.HMIPacketRate	DINT	The number of Class 3 packets and unconnected packets that are sent and received by the device in the previous second.	All values
Statistics.IOPacketRate	DINT	The number of Class 0 and Class 1 packets that are transmitted or received by the adapter in the previous second.	All values
Statistics.EthernetErrors	DINT	The sum over all ports of the Ethernet Link object values: In Discards, In Errors, In Unknown Protos, Out Discards, Out Errors, Alignment Errors, FCS Errors, Single Collisions, Multiple Collisions, SQE Test Errors, Deferred Transmissions, Late Collisions, Excessive Collisions, MAC Transmit Errors, Carrier Sense Errors, Frame Too Long, and MAC Receive Errors.	All values
Statistics.CPUUtilization	INT	The utilized percentage of the capacity of the product's compute engine (whether that is a CPU, or a core of a CPU, or a thread) most important to the performance of communication of packets by the product.	0...100
InternalFault	BOOL	Indicates if an internal fault exists.	<ul style="list-style-type: none"> 0 = No internal fault detected 1 = Internal fault detected
DLRNetworkState	SINT	The current value of the Network Status instance attribute of the DLR object for devices with multiple Ethernet ports that support DLR.	<ul style="list-style-type: none"> 0 = Normal 1 = Ring Fault 2 = Unexpected Loop Detected 3 = Partial Network Fault 4 = Rapid Fault/Restore Cycle
DLRSupervisorState	SINT	The current value of the Ring Supervisor Status instance attribute of the DLR object for devices with multiple Ethernet ports that support DLR.	<ul style="list-style-type: none"> 0 = Device is functioning as a backup. 1 = Device is functioning as the active ring supervisor. 2 = Device is functioning as a normal ring node.

Table 11. Adapter Status Tags (continued)

Name	Data Type	Definition	Valid Values
			<ul style="list-style-type: none"> 3 = Device is operating in a non-DLR topology. 4 = Device cannot support the current ring parameters (Beacon Interval and Beacon Timeout).
DLREnabled	BOOL	Indicates if DLR network redundancy mode is enabled.	<ul style="list-style-type: none"> 0 = DLR network redundancy mode is not enabled 1 = DLR network redundancy mode is enabled
PRPEnabled	BOOL	Indicates if PRP network redundancy mode is enabled.	<ul style="list-style-type: none"> 0 = PRP network redundancy mode is not enabled 1 = PRP network redundancy mode is enabled
PRPPort1Fault	BOOL	Indicates a PRP network A fault state. Fault state may be caused by missing duplicate packets (one of redundant network disconnected) or network cables mismatch.	<ul style="list-style-type: none"> 0 = No fault 1 = Fault
PRPPort2Fault	BOOL	Indicates a PRP network B fault state. Fault state may be caused by missing duplicate packets (one of redundant network disconnected) or network cables mismatch.	<ul style="list-style-type: none"> 0 = No fault 1 = Fault
PRPModeFault	BOOL	Indicates that the configuration of the adapter in the Studio 5000 Logix Designer application project is for PRP mode but the PRP/DLR switch on the adapter is not configured for PRP mode.	<ul style="list-style-type: none"> 0 = Configuration is correct. The Module Properties configuration matches the PRP/DLR switch setting. 1 = The Module Properties configuration does not match with the PRP/DLR switch setting.
DLRModeFault	BOOL	Indicates that the configuration of the adapter in the Studio 5000 Logix Designer application project is for DLR mode but the PRP/DLR switch on the adapter is not configured for DLR mode.	<ul style="list-style-type: none"> 0 = Configuration is correct. The Module Properties configuration matches the PRP/DLR switch setting. 1 = The Module Properties configuration does not match the PRP/DLR switch setting.
DLRFault	BOOL	Indicates if there is a ring fault in the network. To use the bit, the adapter must act as an active or backup Ring Supervisor. Once the bit is triggered, the bit can be cleared by using the Reset Counter.	<ul style="list-style-type: none"> 0 = Network is healthy 1 = Ring fault
XTChassisWarning	BOOL	Indicates if an XT chassis contains non-XT units.	<ul style="list-style-type: none"> 0 = One of the following: <ul style="list-style-type: none"> Adapter is not configured as XT in the project Adapter is configured as XT and no non-XT physical units are found in the chassis 1 = Adapter is configured as XT in project but non-XT physical units (Adapter, I/O, or Base) are found in the chassis.

Table 11. Adapter Status Tags (continued)

Name	Data Type	Definition	Valid Values
LocalClockOffset	LINT	The offset from the local clock to the system time. This value helps to detect steps in time. This value updates when a PTP update is received.	All values
LocalClockOffsetTimestamp	LINT	The time when the Local Clock Offset was sampled. This value is initially zero, and the first timestamp occurs when the module synchronizes with the master clock.	All values
GrandMasterClockID	SINT[8]	The EUI-64 Identity of the CIP Sync Grandmaster clock the module is synced to.	All values
Basexx.Fault	BOOL	Indicates if a base fault is present.	<ul style="list-style-type: none"> 0 = Fault not detected 1 = Fault detected
Basexx.Uncertain	BOOL	Indicates that the numbered base data can be inaccurate but the degree of inaccuracy is not known.	<ul style="list-style-type: none"> 0 = Good data 1 = Uncertain data
Basexx.InternalFault	BOOL	Indicates if an internal fault is present.	<ul style="list-style-type: none"> 0 = Internal fault not detected 1 = Internal fault detected
Basexx.NotDetected	BOOL	Indicates if the base of a backplane slot is detected.	<ul style="list-style-type: none"> 0 = Base detected 1 = Base not detected
Basexx.RevisionFault	BOOL	Indicates that a hardware or firmware incompatibility with another part of the system is detected.	<ul style="list-style-type: none"> 0 = No revision fault detected 1 = Revision fault detected

Secure Web Server

The PointMax EtherNet/IP adapter allows you to view network diagnostic information and configure network settings of the module through a secure web server interface.

To view the web server interface, enter the IP address of the adapter into your browser, preceded by "https://".

For example, <https://192.168.1.99>

IMPORTANT: Make sure that your LAN and TCP/IP settings are configured to access the subnet on which your adapter communicates.

We recommend that you only use a secure network environment as it retains default settings.

Browser Requirements

To access the adapter web server pages, you must use the latest versions of the following browsers:

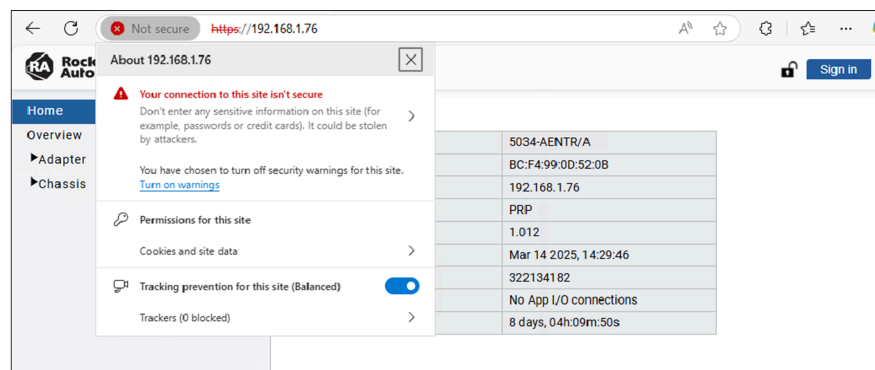
- Microsoft® Edge™ version 116 or later
- Google Chrome™ version 116 or later
- Mozilla™ Firefox™ version 109 or later

To access data view web server pages, your browser requires JavaScript support.

Access the Web Server Home Page

The first time that you enter the IP address of the module into your web browser, a privacy error page opens. This occurs due to a self-signed certificate used to establish a secure HTTP connection.

Figure 9. Example of Web Server Privacy Error



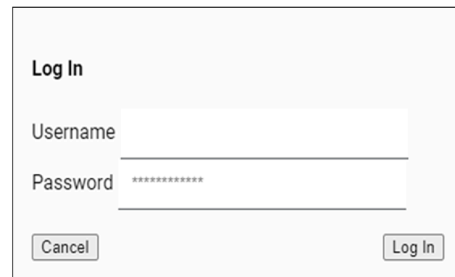
To proceed, you must acknowledge the privacy error. The steps to acknowledge the error vary depending on the browser that you use. Follow the instructions on the error page. Once you have acknowledged the error, the web server home page displays.

Without signing in, you can only view the diagnostics pages for the module. If you want to view the configuration pages and make changes, you must authenticate with your credentials.

Sign in to the Web Server

Many of the adapter features require you to sign in with the appropriate access. If you want to view the configuration pages and make changes, you must sign in with your username and password.

Select Sign in on the top right of the page to launch the sign in dialog.



A dialog box titled "Log In" with a light gray background. It contains two input fields: "Username" and "Password". The "Password" field is masked with asterisks. At the bottom, there are two buttons: "Cancel" on the left and "Log In" on the right.

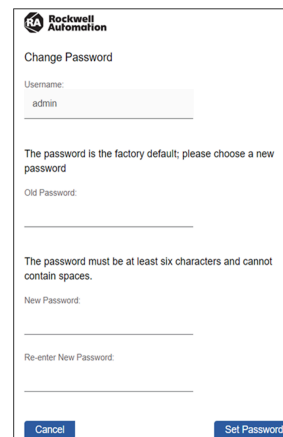
Mandatory First-time Password Change

You must change the default password when you access the web server for a module that is in the out-of-box state, or when the module has been reset to factory default.

If you do not change the default password before establishing an initial I/O connection, the web server remains in the read-only state and you can only access the diagnostics pages. To access the configuration pages, you must perform a factory reset and change the default password before establishing an initial I/O connection.

The first time that you access the Configuration page, the Change Password dialog appears as shown below.

Figure 10. Change Password Example



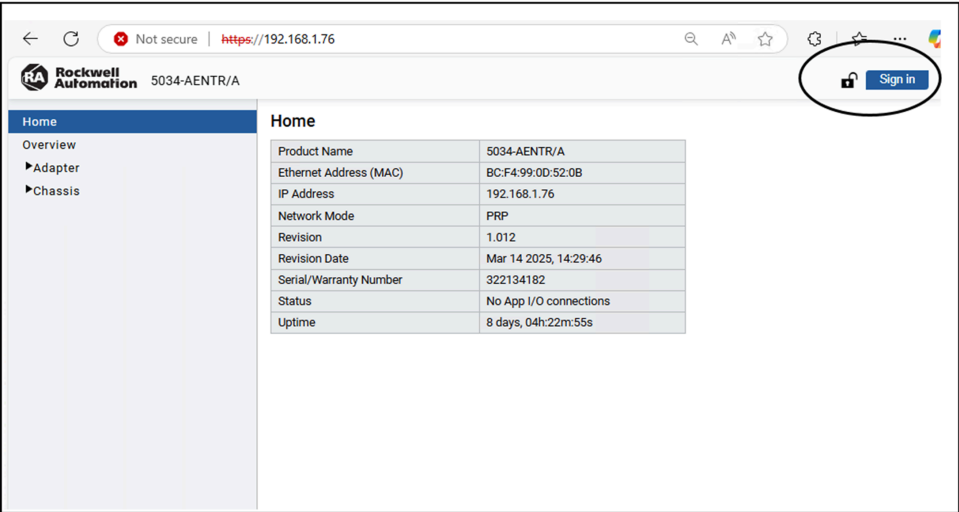
A dialog box titled "Change Password" with the Rockwell Automation logo at the top left. It contains the following fields and text:

- "Username:" with a text box containing "admin".
- A message: "The password is the factory default; please choose a new password".
- "Old Password:" with a text box.
- A message: "The password must be at least six characters and cannot contain spaces."
- "New Password:" with a text box.
- "Re-enter New Password:" with a text box.
- At the bottom, there are two buttons: "Cancel" on the left and "Set Password" on the right.

- Factory default username: "admin"
- Factory default password: "password"

The newly set password must adhere to the following criteria:

- Does not contain spaces
- Does not match the default password
- Password length must contain 8...64 characters
- Username and password are case sensitive

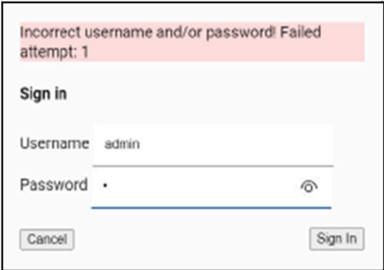
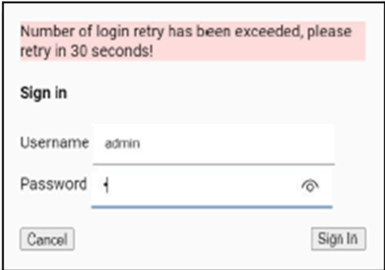


The  on the top right of the page remains unlocked until you change the default password.

Maximum Limit of Unsuccessful Sign in Attempts

You are allowed up to three unsuccessful attempts to sign in to the web server.

The error message “Incorrect username and/or password! Failed attempt: x” displays, where x is the number of attempts. After three unsuccessful attempts, the message “Number of login retry has been exceeded, please retry in 30 seconds!” displays and you are locked out of the web server for 30 seconds.



Session Timeout - Inactivity Timeout

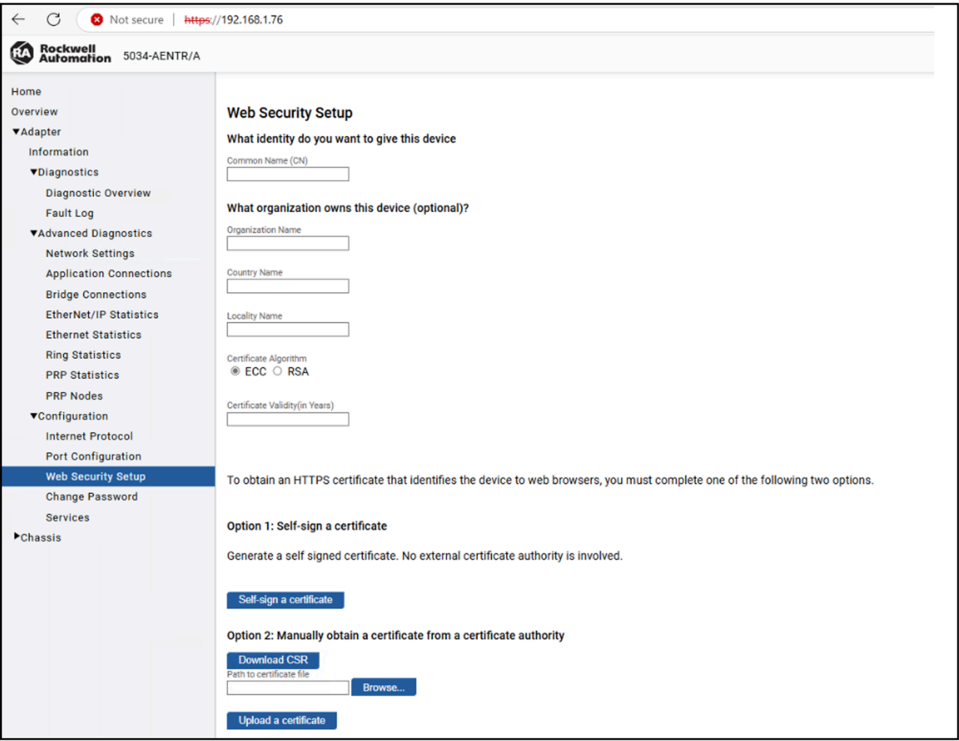
The web server monitors webpage usage and locks you out of the current session if no input or movement is detected for three minutes. The webpage goes to the default home page. If you wish to continue the session with user access, you can sign in again using the Sign in option at the top.



Session timeout is based on the request that is sent to the web server from the Configuration pages only. If there are no requests that are processed from the Configuration pages for three minutes, the session times out.

Web Server Security

The web server employs HTTPS for secure and encrypted connections with clients. HTTPS uses SSL/TLS certificates to achieve its security goals.



- The adapter uses two types of certificates:
- A self-signed certificate — Automatically generated by the module itself during its initial power-on following a factory reset
 - A CA-signed certificate — Obtained by having the certificate signed through a Certificate Authority

Generate a Self-signed Certificate

The module comes with an out-of-box self-signed certificate that is generated using the ECC algorithm.

Table 12. Web Security Setup Requirements

Parameter	Accepted Value	Length
Common Name	Any character	8...63
Organization Name	Alphabet, number, and space only	1...63
Country Name	Alphabet only	2
Locality Name	Alphabet only	1...63
Certificate Validity	Numeric value only	1...82 (years)

To generate a self-signed certificate, complete these steps:

1. From the Web Security Setup page, enter the necessary details that are shown. **You must enter the Common Name and Certificate Validity.**
2. Select whether to generate the certificate using the ECC or the RSA algorithm.
3. Select Self-sign a certificate.

The self-signed ECC certificate generates in approximately five seconds, whereas the RSA certificate generates in approximately 50 seconds. Once the certificate is generated, the web server restarts, and the generated certificate is used.



A self-signed certificate is automatically generated whenever you change the IP settings.

Upload a CA-signed Certificate

You can upload a CA-signed certificate that is based on the Certificate Signing request (CSR) generated from the module.

To upload a CA-signed certificate, complete these steps:

1. From the Web Security Setup page, enter the necessary details that are shown. **You must enter the Common Name and Certificate Validity.**
2. Select whether to generate the CSR using the ECC or the RSA algorithm.
3. Select Download CSR.

The CSR generates in approximately five seconds for the ECC algorithm, whereas the CSR generates in approximately 50 seconds for the RSA algorithm. Once the CSR is generated, you can retrieve the CSR in the Downloads folder.

4. Use the generated CSR to have a Certificate Authority (CA).
5. Once you have the CSR signed by a CA, you can use the Browse... option to go to the location where you stored the certificate.
6. Select Upload a certificate. Once the certificate is uploaded, the web server restarts, and the uploaded certificate is used.



Close the browser and reopen it to see the newly generated or uploaded certificates.

Once you upload a CA-signed certificate, the web server will only use the CA-signed certificate. If you regenerate a self-signed certificate, it will not take effect.

Enable or Disable the Web Server

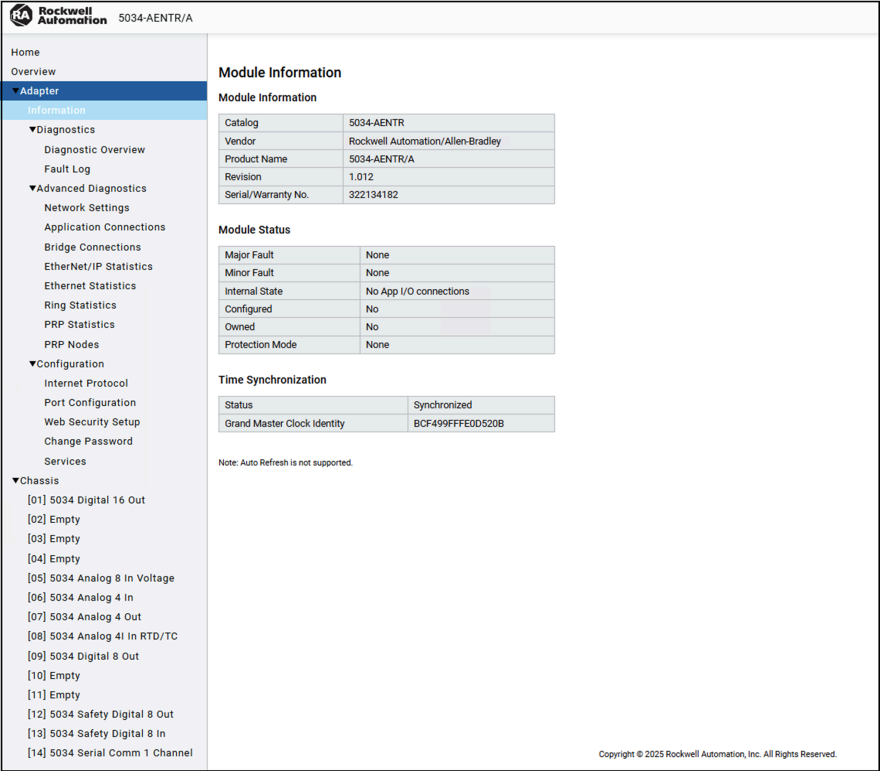
The web server functionality is disabled by default. Disabling the web server and using the Protection Mode helps to decrease the possibility of a security breach.

Disable the web server on the Services page.

Navigate the Web Server

Navigate the web server pages by using the navigation panel on the left of the screen.

Figure 11. Navigate the Web Server Pages



Diagnostic Pages

Diagnostics pages are read-only. Read-only pages automatically refresh according to the configured Refresh Interval, set in seconds. The default Refresh Interval is set to 5 seconds, which is both the minimum and initial value. You can adjust the Refresh Interval up to a maximum of 15 seconds. If you set the Refresh Interval to 0, auto-refresh is disabled.

Configuration Pages

To view the configuration pages and make changes, you must sign in to the web server.



You cannot update the pages while the module is in Explicit or Implicit Protection mode.

Internet Protocol Page

The Internet Protocol page shows the IP settings for the EtherNet/IP adapter.

Use the Internet Protocol page to complete the following tasks:

- Select how IP settings are configured.
- Configure IP settings

Port Configuration Page

The Port Configuration page shows the status information of the network ports.

Use the Port Configuration page to complete the following tasks:

- Enable or disable network ports
- Select whether to configure the port settings automatically or manually
- Select the port speed
- Select the port duplex mode

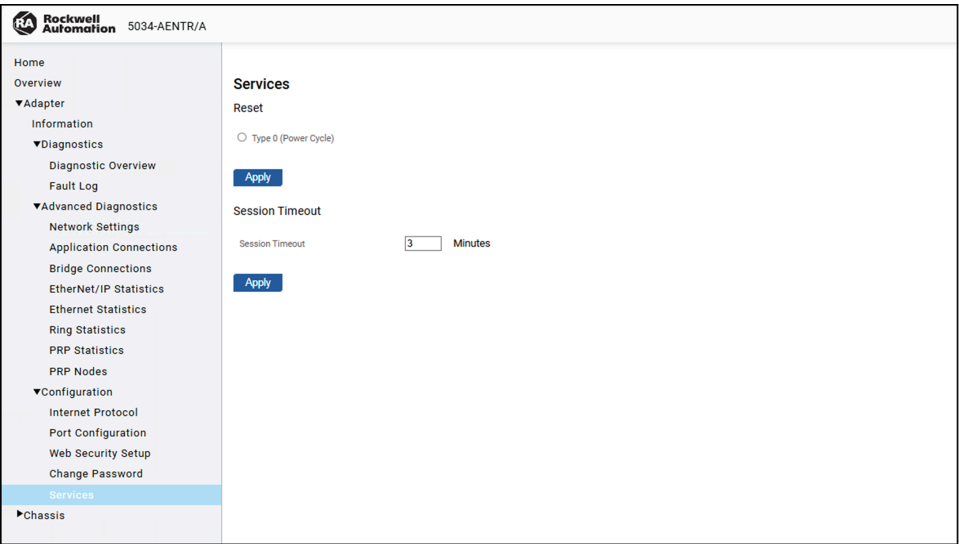
Web Security Setup Page

The Web Certificate Setup page shows the information on the HTTPS certificate for the web server.

Use this page to complete the following tasks:

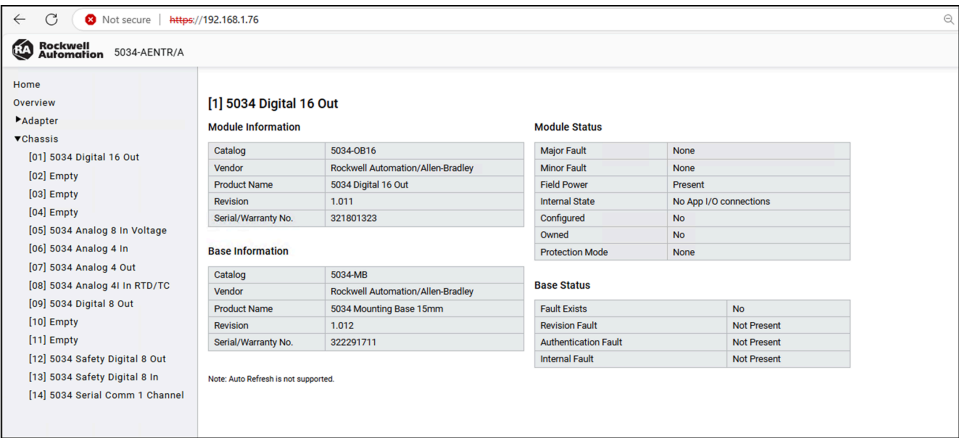
- Generate a self-signed certificate
- Generate a CSR
- Upload a CA-signed certificate

Services Page



Use the Services page to reset the adapter and set the session timeout duration.

Chassis Page



The Chassis page shows the information for I/O modules and mounting bases connected on the chassis.

Use this page to view the following information:

- Module information
- Module status

- Base information
- Base status

Reset the Adapter

To reset the PointMax EtherNet/IP adapter to its default settings, complete the following steps.

1. Power down the adapter.
2. Set the rotary switches to 888.
3. Power up the adapter.
4. Wait for the adapter power-up sequence to complete.
The power-up sequence is complete, and the adapter has returned to its factory default setting when the status indicator states are as follows:
 - Ok indicator is flashing red.
 - All other indicators are off.
5. Power down the adapter.
6. Set the rotary switches to the desired address.

IMPORTANT: If you do not want to set the IP address via the rotary switches, set them to 999.

After the adapter powers up, set the IP address.

7. Power up the adapter.

Rockwell Automation Support

Use these resources to access support information.

Technical Support Center	Find help with how-to videos, FAQs, chat, user forums, and product notification updates.	rok.auto/support
Local Technical Support Phone Numbers	Locate the telephone number for your country.	rok.auto/phonesupport
Technical Documentation Center	Quickly access and download technical specifications, installation instructions, and user manuals.	rok.auto/techdocs
Literature Library	Find installation instructions, manuals, brochures, and technical data publications.	rok.auto/literature
Product Compatibility and Download Center (PCDC)	Get help determining how products interact, check features and capabilities, and find associated firmware.	rok.auto/pcdc

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Waste Electrical and Electronic Equipment (WEEE)



At the end of life, this equipment should be collected separately from any unsorted municipal waste.

Rockwell Automation maintains current product environmental information on its website at rok.auto/pec.

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