The figure shows Ethernet port identification for the 9300-ENA.

# **Ethernet Port Identification**



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# **Install the Modules**

Mount the modules, as shown, in the vertical position only. We do not recommend horizontal mounting due to thermal considerations. When mounting, provide 50 mm (2 in.) of space on all sides for adequate heat dissipation.

IMPORTANT	Use care with the plastic DIN rail clip.
	If you connect or disconnect the communication cable with power applied to this module or any device on the network, an electrical 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.
WARNING	If you connect or disconnect wiring while the field-side power is on, an electrical 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.

## **DIN Rail Mounting**

Read this section for information on how to install and remove a module using DIN rail mounting.

#### Install the Module

To install the module on DIN rail, proceed as follows.

- 1. Mount your DIN rail.
- 2. Snap the DIN-rail latch into the closed position.

**3.** Hook the top slot over the DIN rail and push the module into position on the DIN rail.



## Remove the Module

To remove the module from DIN rail, proceed as follows.

- 1. Place a screwdriver in the DIN-rail latch at the bottom of the module.
- 2. Hold the module and pry downward on the latch until the module is released from the DIN rail.



## **Panel Mounting**

Provide 15 mm (0.6 in.) clearance for DIN-rail latch movement during installation and removal. Dimensions in the figure are in mm (in.). These views are not actual size.



## Wire the Module

Read this section for information about external power supply wiring.

Provide low voltage DC power to the module by using the screw terminals contained in the power connector.



Follow these steps to prepare the DC power cable.

1. Locate the power connector.



2. Identify the positive and return DC power connections on the connector.

The positive DC power connection is labeled DC+ and the negative DC power connection in the adjacent connection labeled DC-.

- **3.** Measure a length of 0.82...0.52 mm<sup>2</sup> (18...20 AWG) copper wire long enough to connect to the DC power source.
- Using an 18-gauge wire-stripping tool, strip each of the two wires to 6.3 mm (0.25 in.) ±0.5 mm (0.02 in.).

Do not strip more than 6.8 mm (0.27 in.) of insulation from the wire. Stripping more than the recommended amount of wire can leave exposed wire from the connector after installation.



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**5.** Insert the exposed part of the positive wire into the connection labeled DC+ and the exposed part of the return wire into the connection labeled DC-.

Make sure that you cannot see any wire lead. Only wire with insulation should extend from the connector.

- 6. Use a ratcheting-torque screwdriver to torque the power and relay connector captive screws (above the installed wire leads) to 0.23 N•m (2.0 lb in.).
- Connect the other end of the positive wire (the one connected to DC+) to the positive terminal on the DC power source, and connect the other end of the return wire (the one connected to DC-) to the return terminal on the DC power source.

### Attach the Power Connector

Follow these steps to connect the DC power connector:

- **1.** Insert the power connector into the Power receptacle on the bottom of the unit.
- **2.** Use a screwdriver to tighten the captive screws on the sides of the power connector.

### **Connect the Copper Ethernet Ports**

Follow these steps to connect the copper Ethernet port(s) on the module.

- 1. Locate the copper Ethernet RJ-45 ports on the module.
- **2.** Connect one end of an Ethernet cable to one of the copper ports on the module.
- **3.** Connect the other end of the Ethernet cable to a device in your Ethernet network.

#### **Grounding Considerations**



You must provide an acceptable grounding path for each device in your application. For more information on proper grounding guidelines, refer to publication <u>1770-4.1</u>, Industrial Automation Wiring and Grounding Guidelines.

This product is intended to be mounted to a well-grounded mounting surface such as a metal panel. The functional earth ground connection to the product is through the specified pin on the dc connection terminals.

#### IMPORTANT

The ground connection is required at the grounding pin on the dc connection terminals

Refer to publication <u>1770-4.1</u>, Industrial Automation Wiring and Grounding Guidelines, for additional information.

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# Use the Module

To start using your module, follow this procedure. For information about the status indicators on the module, refer to the LED functions on page 17.

- Connect the 9300-ENA module's configuration port to your computer's LAN card by using an Ethernet patch cable or cross-over cable and follow these steps.
  - a. Choose Start>Settings>Network Connections and right-click Local Area Connection and Properties.



b. From the Local Area Connection Properties menu, check Ethernet Protocol (TCP/IP), and click Properties.

