



# ROCKET **LINX** ES8105/8108

*Industrial Full Gigabit Ethernet Switch*



## Quick Installation Guide *ES8105-GigE | ES8108-GigE*

## Introduction

The RocketLinx ES8105-GigE and ES8108-GigE are industrial Ethernet switches with full Gigabit ports that are backward compatible (10/100/1000BASE-TX). The ES8105-GigE has five Gigabit ports and the ES8108-GigE has eight Gigabit ports. The ES8105-GigE and ES8108-GigE are referred to as the switch in the remainder of the Guide unless model-specific information is required.

The switches conform to IEEE802.1p Class of Service, IEEE802.1Q Quality of Service for packet forwarding precedence, and IEEE802.3x Flow Control standards. The switches provide 9.6K bytes Jumbo frame (Gigabit) for large file transmission and supports broadcast storm packet filtering.

The switches feature a compact IP31 rigid aluminum case for operation in harsh environments (-10°C to 70 C). They also feature an alarm relay to notify users of a port link or power failure. The switches can be powered using a wide input power range of 12-48VDC using the 6-pin terminal block.



*ES8105-GigE*



*ES8108-GigE*

## Setting the DIP switch

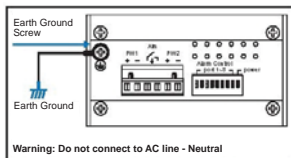
The RocketLinx switches have a DIP switch located on the bottom panel to configure the port link or power failure alarm.

ES8105-GigE	ES8108-GigE	Status	Description
DIP 1 to DIP 5	DIP 1 to DIP 8	On	Enables the port link down alarm on the corresponding port.
		Off	Disables the port link down alarm on the corresponding port.
DIP 6	DIP 9	On	Enables the power failure alarm.
		Off	Disables the power failure alarm.

## Grounding the Switch

There is an earth ground screw on the bottom side of the switch. Connect the earth ground screw of the switch to a grounding surface to ensure safety and prevent noise.

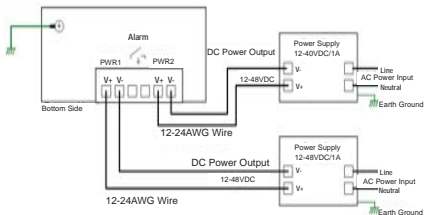
It is not necessary to attach a ground wire if the DIN rail is grounded and the switch is mounted on the DIN rail.



## Wiring the Power

Use the following procedure to wire the power. The switches allow redundant DC power input. Note: The recommended working voltage is 24VDC (12-48VDC).

1. Disconnect the terminal block from the switch.
2. Insert the positive and negative wires into the + and - contact either under the PW1 and/or PW2 on the terminal block



**Note:** Power should be disconnected from the power supply before connecting it to the switch. Otherwise, your screwdriver blade can inadvertently short your terminal connections to the grounded enclosure.

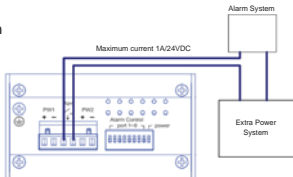
3. Tighten the wire-clamp screws to prevent the wires from being loosened.
4. Plug the terminal block into the switch.

## Wiring the Alarm Relay

The alarm relay contacts are in the middle of the terminal block connector. By inserting the wires and setting the DIP switch of the respective Port Alarm to ON, the alarm relay detects any port failures and forms a short circuit. The alarm relay is normally open. It closes if there is a port or power failure.

The following graphic illustrates the ES8108-GigE, which has a DIP switch with 9 switches.

1. Insert the positive and negative wires as shown in the graphic.
2. Tighten the wire-clamp screws to prevent the wires from coming loose.



## Mounting the Switch

The DIN rail clip is already attached on the rear of the switch.

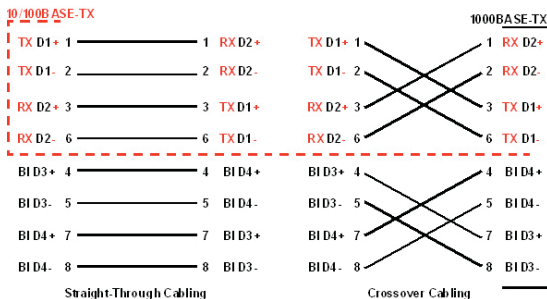
1. Insert the upper end of the DIN rail clip into the back of the DIN rail track from its upper side.
2. Lightly push the bottom of the DIN rail clip into the track.
3. Verify that the DIN rail clip is tightly attached to the track.

## Connecting the Ethernet Ports

You can use the following information to connect standard Ethernet cables between the Ethernet ports and the network nodes. The Ethernet ports support 10BASE-T, 100BASE-TX, and 1000BASE-TX, full-or half-duplex modes.

All ports automatically detect the signal from the connected devices to negotiate the link speed and duplex mode (half- or full-duplex). Auto MDI/MDIX allows you to connect another switch, hub, or workstation without changing straight-through or crossover cables. Crossover cables cross-connect the transmit lines at each end to the received lines at the opposite end.

The following table shows the RJ45 pin-out assignments for the Ethernet ports.



Connect one side of an Ethernet cable into any switch port and connect the other side to your attached device. The wiring cable types and maximum cable length are as follows.

- 10/100BASE-TX: 4-pair UTP/STP Cat. 5 Cable, EIA/TIA-568B 100-ohm (100 meters)
- 1000BASE-TX: 4-pair UTP/STP Cat. 5e cable, EIA/TIA-568B 100-ohm (100 meters)

	LEDs	Function	Description
	Link/Act	Indicates the traffic and link status.	On: Port is linked to another device. Blinking: The traffic is active
	Speed	Indicates the copper port link speed.	On: Port link is 1000Mbps Off: Port link is 100Mbps or 10Mbps

## Control Customer Service

You can use one of the following methods to contact Control Corporation.

Contact Method	Web Address or Phone Number
Support	<a href="http://www.comtrol.com/pub/en/support">http://www.comtrol.com/pub/en/support</a>
Downloads	<a href="ftp://ftp.comtrol.com/html/ES8105_GigE.htm">ftp://ftp.comtrol.com/html/ES8105_GigE.htm</a> <a href="ftp://ftp.comtrol.com/html/ES8108_GigE.htm">ftp://ftp.comtrol.com/html/ES8108_GigE.htm</a>
Web Site	<a href="http://www.comtrol.com">http://www.comtrol.com</a>
Phone	763.957.6000

