



# **ROCKET***LINX* ES7206-XT

*Industrial PoE Plus Switch*

## **QUICK INSTALLATION GUIDE**

2000584 Rev E | Release Date- March 2014

# INTRODUCTION

The RocketLinx ES7206-XT is an industrial 6-port Gigabit 802.3af/at PoE Voltage Boost Switch.

See the Control website for product specifications.

# INSTALLATION OVERVIEW

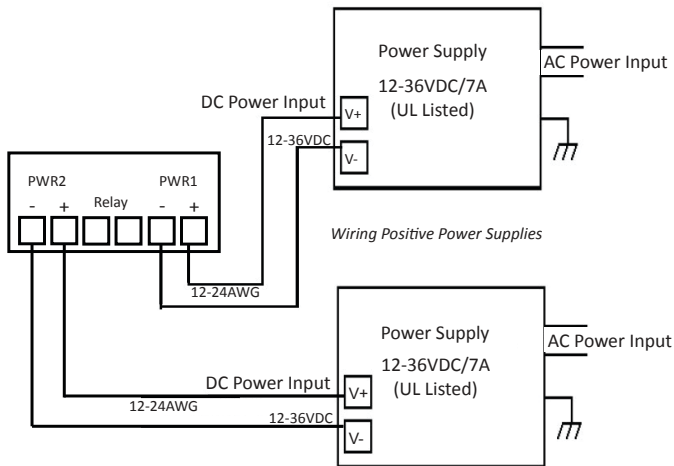
You can use the following information to install the ES7206-XT. The ES7206-XT is to be connected to PoE networks without routing to outside the plant.

## Wiring the Power Inputs

The ES7206-XT provides redundant power, reverse polarity protection, over-current protection and accepts a positive or negative power source but PWR1 and PWR2 must be applied with power sources of the same polarity.

The terminal block accepts 12 - 24AWG wire. Use a UL listed power supply with the required output voltage of 12-36VDC to deliver IEEE 802.3at PoE Plus on all PoE ports (Ports 1-4). The power supply must be rated as follows:

- 802.3af - 96 Watts (Minimum)
- 802.3at - 168 Watts (Minimum)



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.

1. Insert the positive and negative wires into PWR+ and PWR- contacts (PWR1 and PWR2). You can connect a single power supply or two power supplies depending on your requirements.

If both power inputs are connected, the ES7206-XT will be powered from the highest connected voltage. The unit can be configured to signal an alarm for loss of power in either PWR1 or PWR2.

2. Tighten the wire-clamp screws to prevent the wires from being loosened.

**Note:** When the ES7206-XT is in operation, caution must be taken to not touch the hot surface of the product enclosure.

Electrical Specifications	Value
Power Input	12-36VDC
Power Consumption (without PD loading)	<ul style="list-style-type: none"><li>• 840mA @ 12VDC</li><li>• 420mA @ 24VDC</li><li>• 280mA @ 36VDC</li></ul>
Power Consumption (with PD loading)	<ul style="list-style-type: none"><li>• IEEE 802.3af: 6.25 @ 12VDC</li></ul>
	<ul style="list-style-type: none"><li>• IEEE 802.3af: 4A @ 24VDC</li><li>• IEEE 802.3at: 7A @ 24VDC</li></ul>
	<ul style="list-style-type: none"><li>• IEEE 802.3af: 2.67A @ 36VDC</li><li>• IEEE 802.3at: 4.67A @ 36VDC</li></ul>
Maximum Output/Power PoE Port	<ul style="list-style-type: none"><li>• 15W (IEEE 802.3af)</li><li>• 30W (IEEE 802.3at)</li></ul>

*(table continued on next page)*

Electrical Specifications		Value
Total PoE Power Budget	VIN = 12VDC	<ul style="list-style-type: none"> <li>60W @ -40° to 70°C</li> <li>55W @ 70° to 75°C</li> </ul>
	VIN = 24VDC	<ul style="list-style-type: none"> <li>110W @ -40° to 65°C</li> <li>100W @ 65° to 75°C</li> </ul>
	VIN = 36VDC	<ul style="list-style-type: none"> <li>110W @ -40° to 65°C</li> <li>100W @ 65° to 75°C</li> </ul>
Operating Temperature		-40° to 75°C
Storage Temperature		-40° to 85°C

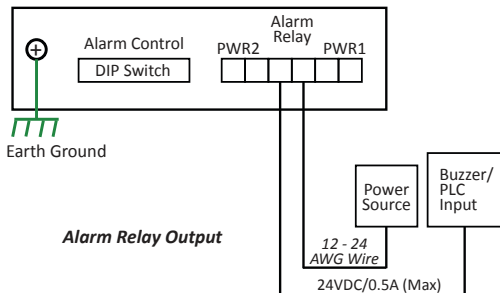
**Note:** Exceeding the recommended power and operating temperatures may result in failures or damage.

### Wiring the Alarm Relay Output

The alarm relay output or digital output (DO) contacts are on the terminal block connector. The alarm relay output contacts are normally open. The alarm relay output contacts close when the alarm is enabled with the DIP switches and there is a port link failure or PoE failure on a port.

The relay contact supports up to 0.5A at 24VDC. Do not apply voltage and current higher than the specifications.

The alarm relay output is controlled by the pre-defined rules. To activate the alarm relay output function, refer to the following drawing.



## Setting the DIP Switch

The ES7206-XT has an 8-pin DIP switch located on the bottom panel to configure the Port Link Alarm for the Ethernet ports. The following table shows the DIP switch number mapping to the corresponding options.

Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	PWR Alm	SFP 100
DIP 1	DIP 2	DIP 3	DIP 4	DIP 5	DIP 6	DIP 7	DIP 8

This table shows the relationship between the DIP switch number, position, and function.

Switch	Position	Function
1-6	ON	Enables port failure alarm for corresponding port
	OFF (Default)	Disables port failure alarm for corresponding port
7	ON	Enables power event alarm
	OFF (Default)	Disables power event alarm
8	ON	Enables SFP port for 100BASE-FX
	OFF (Default)	Supports Gigabit SFP in SFP port

*Note: After connecting the SFP or changing the speed through DIP 8, cycle the power to activate the SFP.*

## Grounding the ES7206-XT

Wire the earth ground to ensure the system is not damaged by noise or any electrical shock, we recommend that you make a direct connection between the ES7206-XT and earth ground.

Using a screw driver, loosen the earth ground screw on the bottom of the ES7206-XT and then tighten the screw after the earth ground wire is connected.

## Mounting the ES7206-XT

The DIN rail clip is attached to the ES7206-XT.

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

*Note: When the ES7206-XT is in operation, caution must be taken to not touch the hot surface of the product enclosure.*

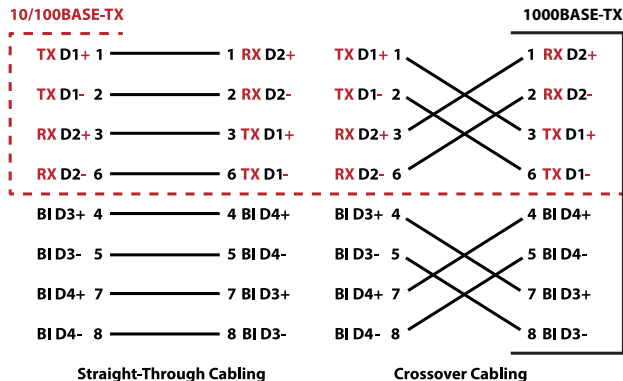
## Connecting the RJ45 Ethernet Ports

Connect one end of an Ethernet cable into the Ethernet port of the ES7206-XT and the other end to the attached networking device:

- Ports 1-4 are Gigabit PoE ports that support IEEE 802.3af/802.3at (PoE+)
- Port 5 is a Gigabit (10/100/1000BASE-TX) port
- Port 6 is a Gigabit SFP port, which is discussed in the next section

The ports support Gigabit half/full-duplex. All RJ45 ports auto-detect the signal from connected devices to negotiate the link speed and duplex mode. Auto MDI/MDIX allows users to connect another switch, hub, or workstation without changing straight-through or crossover cables.

Link/Act LEDs are lit to indicate traffic and link status, see the LEDs subsection for more information.

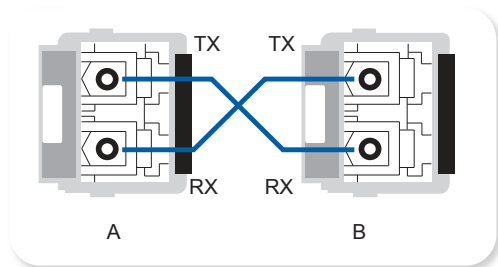


Always make sure that the cables between the switches and attached devices (for example, switch, hub, or workstation) are less than 100 meters (328 feet). You should use Category 5 cable or higher.

### Connecting the SFP Port

You can connect an SFP transceiver to Port 6. Control recommends using Control-approved SFP transceivers. Cross-connect the transmit channel at each end to the receive channel at the opposite end as illustrated in the figure.

Make sure that you use an SFP fiber transceiver compliant with UL certification and EN60825 Class 1.



#### ATTENTION



This is a Class 1 Laser/LED product.

Do not stare into the Laser/LED Beam.

## LED INDICATORS

LED	Status	Description
PWR1/2	Green	The terminal block is receiving power
	Off	The terminal block is not receiving power

*(table continued on next page)*

LED	Status	Description
Alm	Red	One of the following has occurred: <ul style="list-style-type: none"> <li>• Port link failure has occurred</li> <li>• Power has been removed from PWR1 or PWR2</li> <li>• Port 6 SFP is 100BASE-FX and has lost connection/link</li> </ul>
	Off	No failure has been found
PoE 1-4	Yellow	The port is providing PoE power to the PD
	Off	No PD is attached
P 1-5 LNK/ACT	Green	A network device is attached
	Blinks	There is a valid Ethernet transmit/receive activity to/from the connected network device
	Off	The port link is not active
P6 LNK	Green	A network device is attached
	Blinks	There is a valid Ethernet transmit/receive activity to/from the connected network device.
	Off	The port link is not active

## CONTROL CUSTOMER SERVICE

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

Contact Method	Web Address or Phone Number
Support	<a href="http://www.comtrol.com/support">http://www.comtrol.com/support</a>
Downloads	<a href="ftp://ftp.comtrol.com/html/default.htm">ftp://ftp.comtrol.com/html/default.htm</a>
Website	<a href="http://www.comtrol.com">http://www.comtrol.com</a>
Phone	+1 763.957.6000

