

Hardened PoE Ethernet Switch

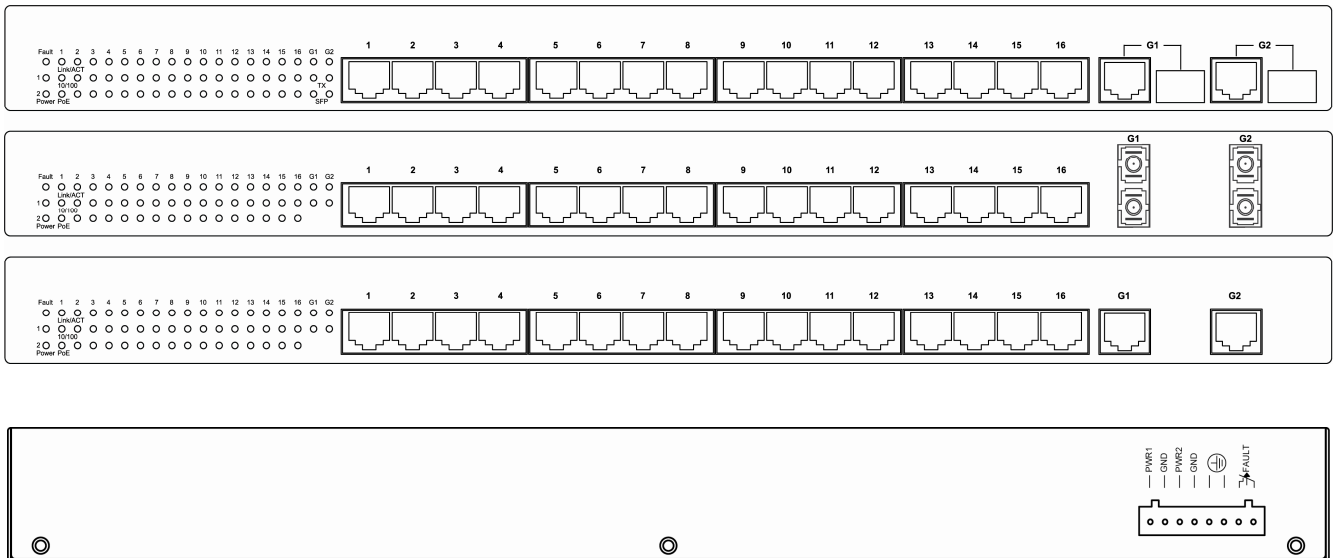
This quick start guide describes how to install and use the Hardened PoE Ethernet Switch. This is the switch of choice for harsh environments.

Functional Description

- Meets NEMA TS1 & TS2 Environmental requirements: temperature, shock, and vibration for traffic control equipment.
- Meets EN61000-6-2 & EN61000-6-4 EMC Generic Standard Immunity for industrial environment.
- Supports IEEE802.3at Power over Ethernet (PoE) Power Sourcing Equipment (PSE).
- 1000Mbps-Full-duplex, 10/100Mbps-Full/Half-duplex, Auto-Negotiation, Auto-MDI/MDIX.
- Supports 4096 MAC addresses. Provides 2.25M bits buffer memory.
- Alarms for power failure by relay output.
- Power Supplies: Redundant 47-57VDC Terminal Block power inputs.
- Operating voltage and Max. current consumption: 9A @ 55VDC. Power consumption: 495W Max.
- -40°C to 75°C (-40°F to 167°F) operating temperature range. Tested for functional operation @ -40°C to 85°C (-40°F to 185°F).
- Supports Rack Mounting installation.

Physical Description

The Port Status LEDs and Power Inputs




LED	State	Indication
Power1	Steady	Power on.
	Off	Power off.
Fault	Steady	Power redundant system failure occurred.
	Off	Power redundant system failure is not occurred.
10/100Base-TX		
Link/ACT	Steady	A valid network connection established.
	Flashing	Transmitting or receiving data. ACT stands for ACTIVITY.
10/100	Steady	Valid port connection at 100Mbps.
	Off	Valid port connection at 10Mbps.
PoE	Steady	Powered device (PD) is connected.
	Off	Powered device (PD) is disconnected.

LED	State	Indication
Gigabit Ethernet		
Link/ACT	Steady	A valid network connection established.
	Flashing	Transmitting or receiving data. ACT stands for ACTIVITY.
TX	Steady	A valid TX connection established.
	Off	No valid TX connection established.
SFP	Steady	A valid SFP connection established.
	Off	No valid SFP connection established.

DC Terminal Block Power Inputs: There are two pairs of power inputs can be used to power up this switch. Redundant power supplies function is supported.

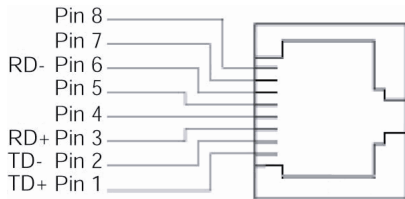
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Power Input Assignment			
Power2	+	47-57VDC	Terminal Block
	-	Power Ground	
Power1	+	47-57VDC	
	-	Power Ground	
		Earth Ground	
Relay Output Rating			

The 10/100Base-TX (PoE) and Gigabit Ethernet Connectors

The 10/100Base-TX (PoE) Connections

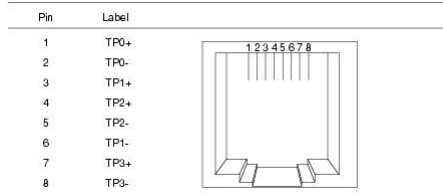
The following lists the pinouts of 10/100Base-TX ports.



Pin	Signal Name	Signal Definition
1	TD+	Output Transmit Data +
2	TD-	Output Transmit Data -
3	RD+	Input Receive Data +
4	PoE	Positive (VCC+)
5	PoE	Positive (VCC+)
6	RD-	Input Receive Data -
7	PoE	Negative (VCC-)
8	PoE	Negative (VCC-)

The 1000Base-T Connections

The following lists the pinouts of 1000Base-T ports.



Pin	Signal Name	Signal Definition
1	TP0+	Transmit and Receive Data 0 +
2	TP0-	Transmit and Receive Data 0 -
3	TP1+	Transmit and Receive Data 1 +
4	TP2+	Transmit and Receive Data 2 +
5	TP2-	Transmit and Receive Data 2 -
6	TP1-	Transmit and Receive Data 1 -
7	TP3+	Transmit and Receive Data 3 +
8	TP3-	Transmit and Receive Data 3 -

The SFP Socket Connections

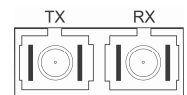
The SFP socket for Gigabit fiber optic expansion.



The 1000Base-SX/LX Connections

The fiber port pinouts

The Tx (transmit) port of device I is connected to the Rx (receive) port of device II, and the Rx (receive) port of device I to the Tx (transmit) port of device II.



The WDM 1000Base-BX Connections

The fiber port pinouts

Only one optical fiber is required to transmit and receive data.

