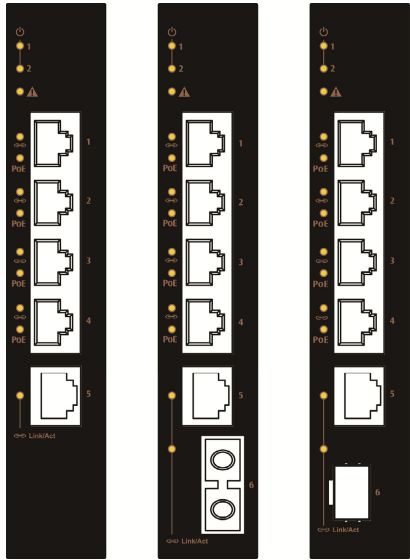This quick start guide describes how to install and use the Hardened PoE Ethernet Switch. Capable of operating at temperature extremes of -40°C to +75°C, this is the Switch of choice for harsh environments constrained by space.

Physical Description

The Port Status LEDs

| LED	State	Indication
⏻ **Power (Green)**	Steady	Power on.
	Off	Power off.
⚠ **Fault (Red)**	Steady	Relay starts alarm.
	Off	Relay non-alarm.
10/100TX Ports		
Link/Act (Green)	Steady	A valid network connection established.
	Blinking	Transmitting or receiving data. Act stands for Activity.
	Off	No link.
PoE (Amber)	Steady	Powered Device is connected.
	Off	Powered Device is disconnected.
	Blinking	While Powered Device over 30W.
Gigabit Port		
Link/Act (Amber)	Steady	A valid network connection established.
	Blinking	Transmitting or receiving data. Act stands for Activity.
	Off	No link.

The Terminal Block and Power Inputs
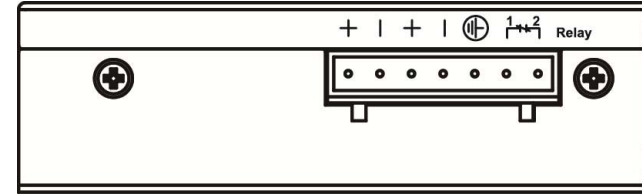
Power Input Assignment			
Power1	+	24/48VDC	Terminal Block
	−	Power Ground	
Power2	+	24/48VDC	
	−	Power Ground	
⏚		Earth Ground	
Relay Output Rating			1A @ 250VAC

DC Terminal Block Power Input: The DC Terminal Block power input can be used to power up this Switch.

DIP Switch Settings

	ON	OFF
PIN 1 - 6 **Port Fault Alarm**		
PIN 7 **Broadcast Storm**	enable	disable
PIN 8 **Jumbo Frame**		
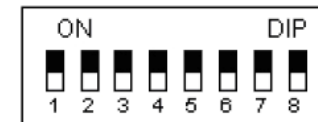
| DIP No.	On	Off
1	Port 1 Alarm Enable.	Port 1 Alarm Disable.
2	Port 2 Alarm Enable.	Port 2 Alarm Disable.
3	Port 3 Alarm Enable.	Port 3 Alarm Disable.
4	Port 4 Alarm Enable.	Port 4 Alarm Disable.
5	Port 5 Alarm Enable.	Port 5 Alarm Disable.
6 (Only for EX42315)	Port 6 Alarm Enable.	Port 6 Alarm Disable.
7	Broadcast Storm Enable.	Broadcast Storm Disable.
8	Jumbo Frame Enable.	Jumbo Frame Disable.

W70G-EX42300Q2

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

The 10/100Base-TX 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−)

```
Pin 8
Pin 7
RD- Pin 6
Pin 5
Pin 4
RD+ Pin 3
TD- Pin 2
TD+ Pin 1
```
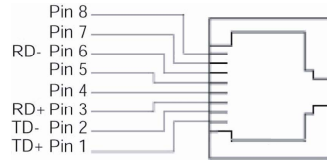
The 10/100/1000Base-TX Connections

The following lists the pinouts of 10/100/1000Base-TX ports.

Pin	Regular Ports	Uplink port
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 −

Pin	Label
1	TP0+
2	TP0-
3	TP1+
4	TP2+
5	TP2-
6	TP1-
7	TP3+
8	TP3-
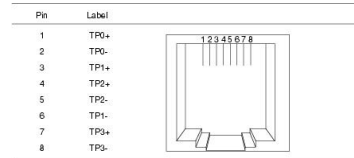
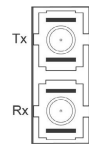### The SFP Socket Connections

The SFP socket for Gigabit fiber optic expansion.

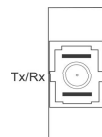### The 1000Base-SX/LX Connections

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.

Tx

Rx

The WDM 1000Base-BX Connections

The fiber port pinouts

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

Tx/Rx

Functional Description

- Complies with EN61000-6-2 & EN61000-6-4 EMC Generic standard immunity for industrial environment.
- Supports 802.3/802.3u/802.3ab/802.3z/802.3x. Auto-negotiation: 10/100/1000Mbps, Full/Half-duplex. Auto MDI/MDIX.
- 1000Base-SX/LX: Multi mode SC or ST type, Single mode SC type. 1000Base-BX: WDM Single mode SC type.
- Supports 8192 MAC addresses, 1M bits buffer memory.
- Supports IEEE802.3az Energy Efficient Ethernet (EEE).
- High speed, non-blocking four traffic class QoS switch fabric.
- Supports Jumbo frame up to 10K Bytes on Gigabit port.
- Enable Broadcast Storm Protection by DIP Switch No. 7 to limit 15,000 packets per second.
- Port 1~4 support IEEE802.3at Power over Ethernet (PoE) Power Sourcing Equipment (PSE) and provide power up to 30W.
- Power consumption: 7W Max (Device only, without PoE).
- PoE power budget: 120W.
- Power Supply: Redundant 24/48VDC Terminal Block power inputs.
- Operating temperature ranges from -40°C to 75°C (-40°F to 167°F).
- Slim design with DIN-Rail mount installation.

Assembly, Startup, and Dismantling

- Assembly: Place the device on the DIN rail from above using the slot. Push the front of the device toward the mounting surface until it audibly snaps into place.
- Startup: Connect the supply voltage to start up the device via the terminal block.
- Dismantling: Pull out the lower edge and then remove the device from the DIN rail.