

## ET8122MPH-S-DR



Hardened 8-port 10/100TX + 2-Port 10/100/1000T/100/1000 SFP Combo with 8 PoE Injectors  
Industrial Ethernet Switch

This quick start guide describes how to install and use the hardened 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 Terminal Block and Power inputs



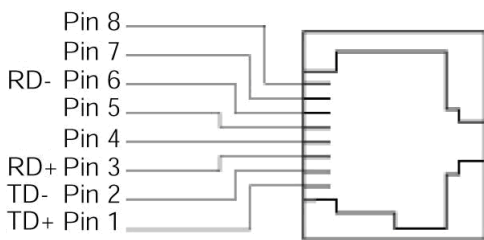
The Terminal Block	
<b>PWR1</b>	Power Input 1 (48VDC)
<b>GND</b>	Power Ground
<b>PWR2</b>	Power Input 2 (48VDC)
<b>GND</b>	Power Ground
	Earth Ground
 <b>FAULT</b>	The relay opens if PWR1 or PWR2 fails (1A)

DC Terminal Block Power Inputs: There are two pairs of power inputs can be used to power up this media converter. Redundant power supplies function is supported. You only need to have one power input connected to run the Switch.

### The 10/100Base-TX and Mini-GBIC combo port

#### The 10/100Base-TX Connections

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



Pin	Regular Ports	Uplink port
1	Output Transmit Data +	Input Receive Data +
2	Output Transmit Data -	Input Receive Data -
3	Input Receive Data +	Output Transmit Data +
4	NC	NC
5	NC	NC
6	Input Receive Data -	Output Transmit Data -
7	NC	NC
8	NC	NC

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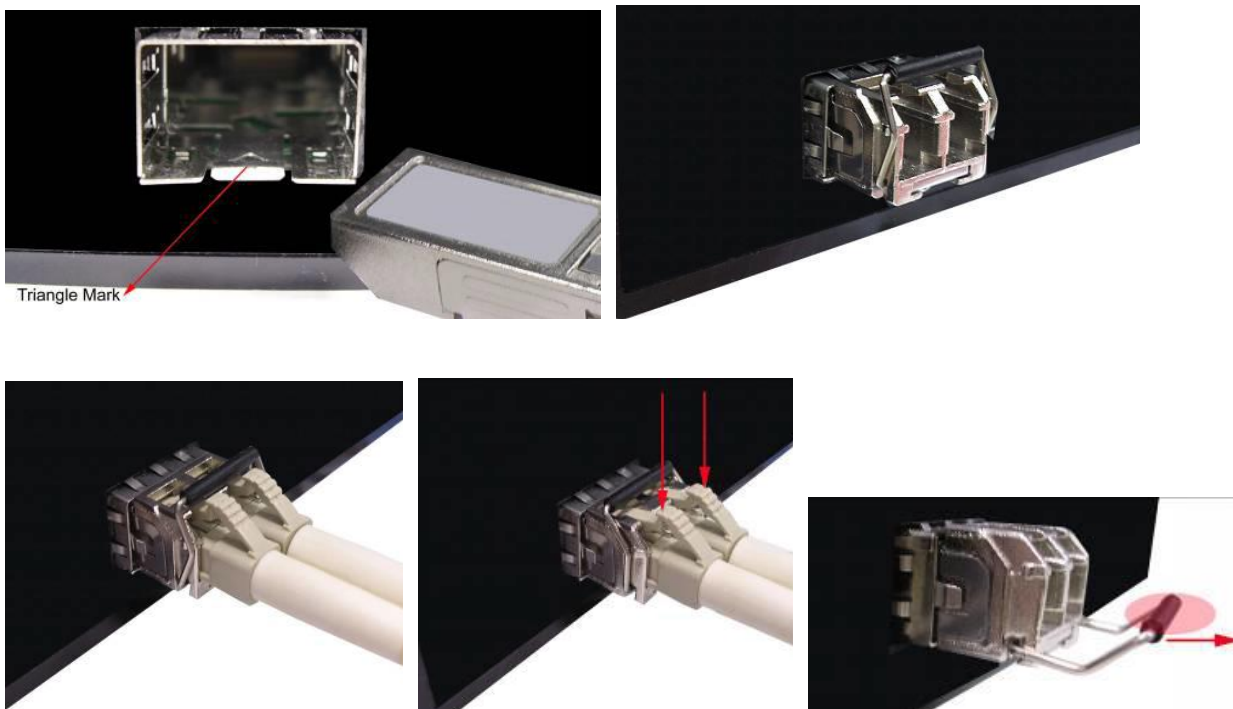
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### Mini-GBIC combo port:

2 auto-detect Giga port—UTP or fiber. The gigabit Ethernet ports are paired with the mini-GBIC ports. UTP (Gigabit Ethernet) ports can operate in half/full-duplex modes and work at speeds of 10/100/1000Mbps that support auto-sensing technology to enable each port to detect the connecting speed. The mini-GBIC port is a joint for a mini-GBIC (SFP) transceiver, so the switch can be uplinked through fiber to another one.

Use four twisted-pair, Category 5e or above cabling for RJ-45 port connection. The cable between the switch and the link partner (switch, hub, workstation, etc.) must be less than 100 meters (328 ft.) long.

Use the mini-GBIC ports to uplink to another switch by inserting the mini-GBIC (SFP) transceiver.

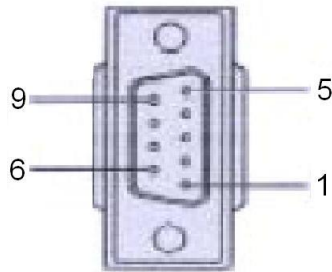
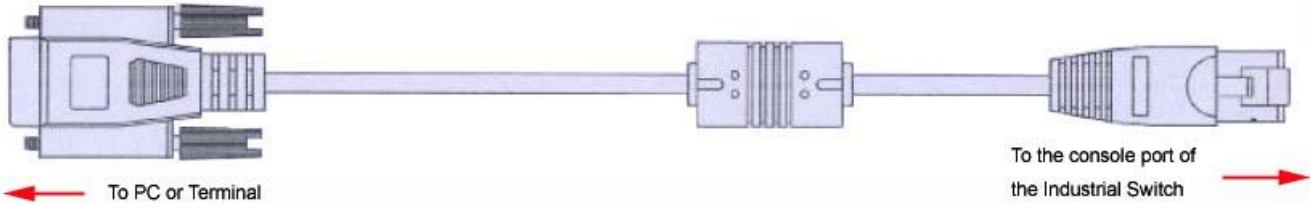


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### Connecting to the Console Port

The supplied cable which one end is RS-232 connector and the other end is RJ-45 connector. Attach the end of RS-232 connector to PC or terminal and the other end of RJ-45 connector to the console port of the switch. The connected terminal or PC must support the terminal emulation program.



DB 9-pin Female

### Pin Assignment

DB9 Connector	RJ-45 Connector
NC	1 Orange/White
2	2 Orange
3	3 Green/White
NC	4 Blue
5	5 Blue/White
NC	6 Green
NC	7 Brown/White
NC	8 Brown

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### Login in the Console Interface

When the connection between Switch and PC is ready, turn on the PC and run a terminal emulation program or **Hyper Terminal** and configure its **communication parameters** to match the following default characteristics of the console port:

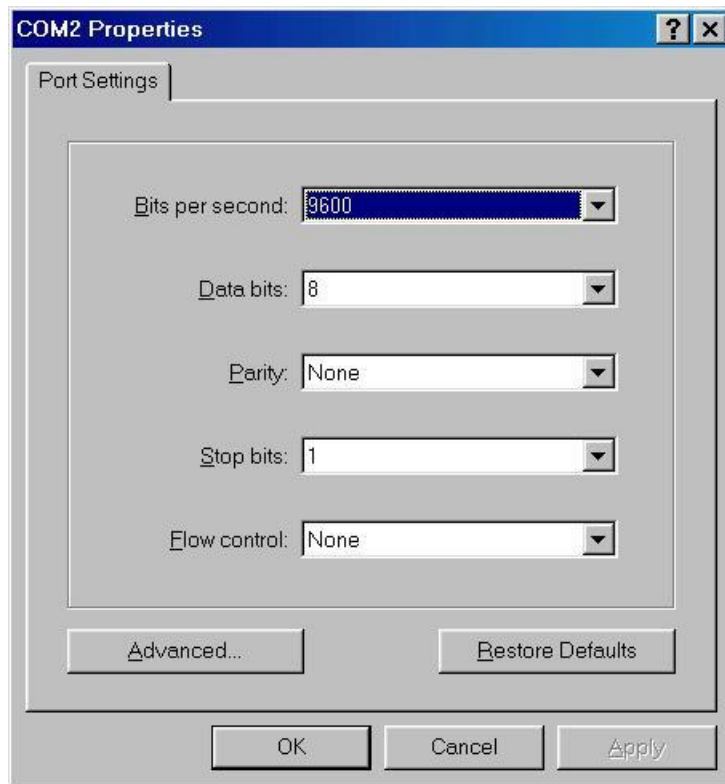
**Baud Rate: 9600 bps**

**Data Bits: 8**

**Parity: none**

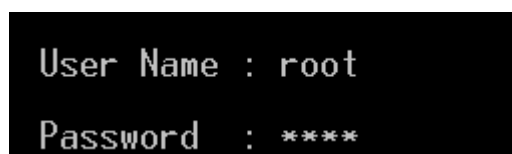
**Stop Bit: 1**

**Flow control: None**



The settings of communication parameters

Having finished the parameter settings, click 'OK'. When the blank screen shows up, press Enter key to have the login prompt appears. Key in 'root' (default value) for both User name and Password (use **Enter** key to switch), then press Enter and the Main Menu of console management appears. Please see below figure for login screen.



Console login interface

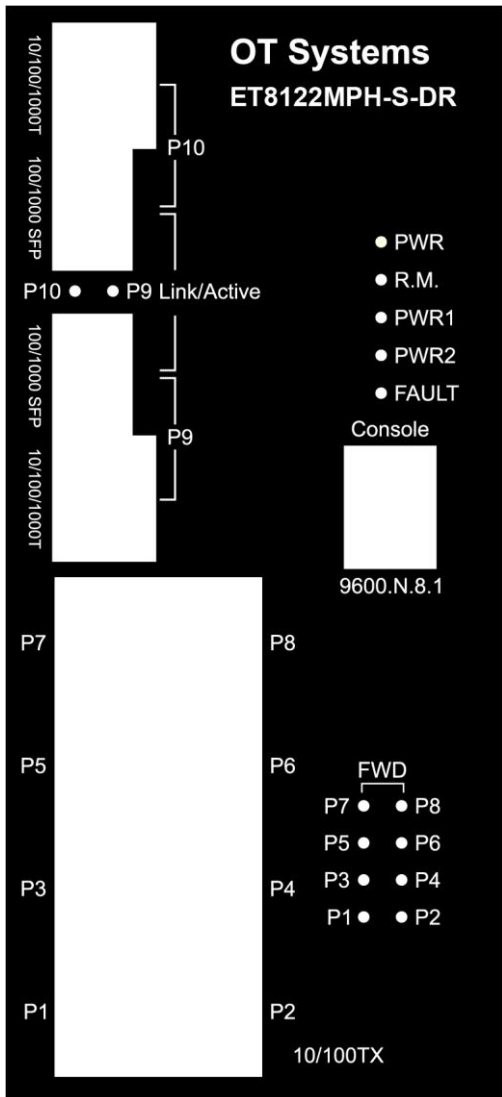
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### The Port Status LEDs, Wall Mounting Kit

#### LED Indicators

The diagnostic LEDs located on the front panel of the industrial switch provide real-time information of system and optional status. The following table provides the description of the LED status and their meanings for the switch.



LED	Color	Status	Meaning
PWR	Green	On	The switch unit is power on
		Off	No power
R.M.	Green	On	The industrial switch is the master of X-Ring group
		Off	The industrial switch is not a ring master in X-Ring group
PWR1	Green	On	Power 1 is active
		Off	Power 1 is inactive
PWR2	Green	On	Power 2 is active
		Off	Power 2 is inactive
FAULT	Red	On	Power or port failure
		Off	No failure
P9, P10 (RJ-45)	Green (Upper LED)	On	A network device is detected.
		Blinking	The port is transmitting or receiving packets from the TX device.
		Off	No device attached
	Green (Lower LED)	On	1000M
Off	10/100M		
Link/Active (P9, P10 SFP)	Green	On	The SFP port is linking
		Blinks	The port is transmitting or receiving packets from the TX device.
		Off	No device attached
P1 ~ P8	Green	On	A network device is detected.
		Blinking	The port is transmitting or receiving



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			packets from the TX device.
		Off	No device attached
	Amber	On	The port is operating in full-duplex mode.
		Blinking	Collision of Packets occurs.
		Off	The port is in half-duplex mode or no device is attached.
<b>FWD (P1 ~ P8)</b>	Green	Green	A powered device is connected utilizing Power over Ethernet on the port
		Off	No device is connected or power forwarding fails

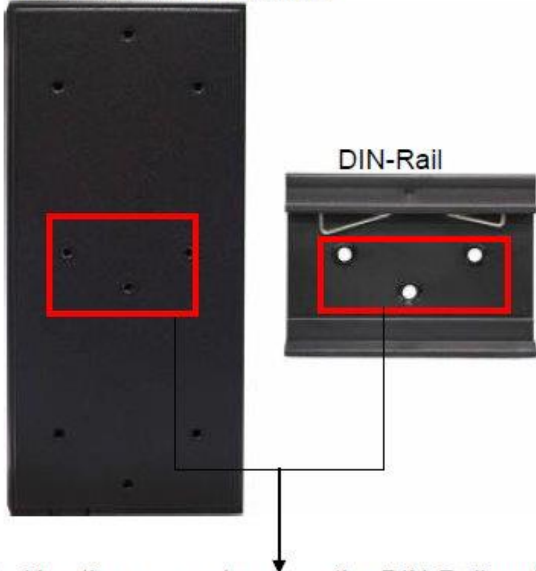
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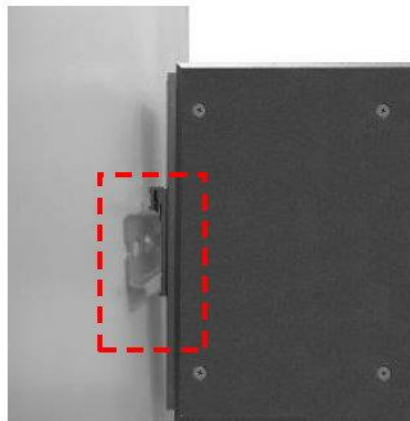
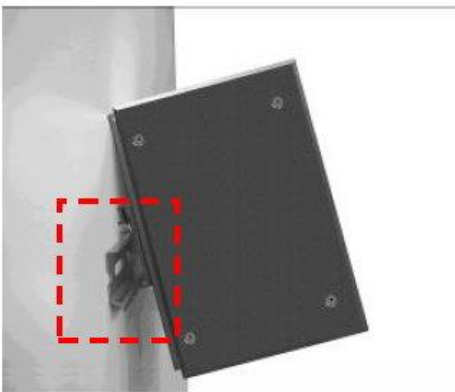
### DIN-Rail Mounting

The DIN-Rail is screwed on the industrial switch when out of factory. If the DIN-Rail is not screwed on the industrial switch, please see the following pictures to screw the DIN-Rail on the switch. Follow the steps below to hang the industrial switch.

Rear Panel of the switch



1. Use the screws to screw the DIN-Rail on the industrial switch
2. To remove the DIN-Rail, reverse the step 1.

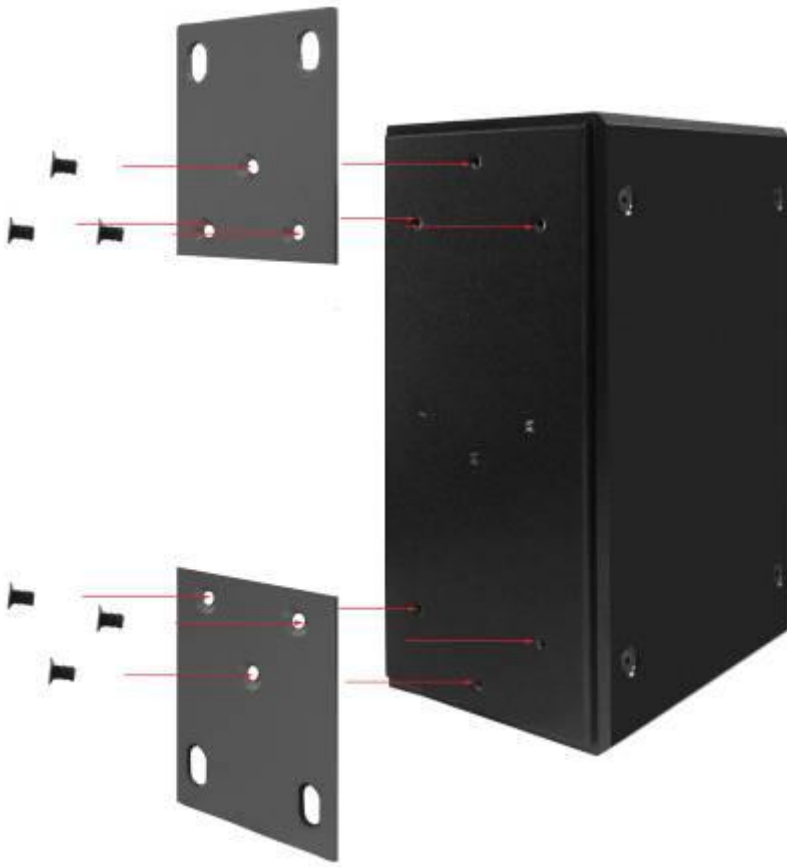


1. First, insert the top of DIN-Rail into the track.
2. Then, lightly push the DIN-Rail into the track.
3. Check if the DIN-Rail is tightened on the track or not.
4. To remove the industrial switch from the track, reverse steps above.

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### Wall Mount Plate Mounting



Follow the steps below to mount the industrial switch with wall mount plate.

1. Remove the DIN-Rail from the industrial switch; loose the screws to remove the DIN-Rail.
2. Place the wall mount plate on the rear panel of the industrial switch.
3. Use the screws to screw the wall mount plate on the industrial switch.
4. Use the hook holes at the corners of the wall mount plate to hang the industrial switch on the wall.
5. To remove the wall mount plate, reverse steps above.





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### Functional Description

- Meets IEC61000-6-2 EMC Generic Standard Immunity for industrial environment.
- Support 802.3/802.3u/802.3ab/802.3z/802.3x/802.3af.
- Auto-negotiation: 10/100/1000Mbps, Full/half-duplex; Auto MDI/MDIX.
- SFP (Mini-GBIC) supports 100/1000 Dual Mode
- Support 8K MAC addresses. Provides 1M bits memory buffer.
- Alarms for power failure by relay output.
- Operating voltage and Max. current consumption: 1.1A @ 12VDC, 0.55A @ 24VDC. Power consumption: 13.2W Max.
- Power Supply: Redundant DC Terminal Block power inputs or 12VDC DC JACK with 100-240VAC external power supply.
- Operating temperature ranges from -40°C to +75°C.
- Supports Wall Mounting installation; Optional DIN-Rail mounting kit.

### Assembly, Startup, and Dismantling

#### Wall Mounting Kit installation

- Assembly: Securely fasten the wall-mount kits to the bottom of module by using the provided screws (6 pcs)  
Mount the standalone unit onto a fixture, e.g. a plank, (either on the wall or on a flat surface) with at least 2 screws piercing through the holes on the mounting frame to secure it in position.
- Startup: Connect the supply voltage to start up the Media Converter via the terminal block.
- Dismantling: Locate and remove the securing screws. Usually, but not limited to, at least 2 screws.

#### DIN rail installation (Optional)

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

**Manual** Earth Green manual is available in our website. [www.ot-systems.com](http://www.ot-systems.com)