Industrial 8-Port 10/100TX M12

802.3at PoE+ Switch (-40~75 degrees C)

ISW-808PT-M12/ISW-808PT-M12A

User's Manual

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FCC Warning

This equipment has been tested and found to comply with the regulations for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with this user's guide, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

CE Mark Warning

This device is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.

Energy Saving Note of the Device

This power required device does not support Standby mode operation.

For energy saving, please remove the power cable to disconnect the device from the power circuit.

Without removing power cable, the device will still consuming power from the power source. In the view of Saving the Energy and reduce the unnecessary power consuming, it is strongly suggested to remove the power connection for the device if this device is not intended to be active.

WEEE Warning

To avoid the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment, end users of electrical and electronic equipment should understand the meaning of the crossed-out wheeled bin symbol. Do not dispose of WEEE as unsorted municipal waste and have to collect such WEEE separately.

Revision

Industrial M12 Ethernet Switch User's Manual

For Models: ISW-808PT-M12/ISW-808PT-M12A

Rev 1.0 (Dec. 2019)

Part No.: 2350-AH5060-000

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1. Package Contents

Thank you for purchasing PLANET Industrial M12 802.3at PoE+ Switch. The descriptions of these models are shown below:

Model Name	Ethernet Ports	Power Connector	Power Input Range	Enclosure
ISW-808PT-M12	8 x 10/100BASE-TX M12 D-coded	1 x M23 5-pin A-coded	DC 12~56V	IP67 aluminum
ISW-808PT-M12A				IP50 metal

"Industrial M12 Ethernet Switch" is used as an alternative name in this Quick Installation Guide. Open the box of the Industrial M12 Ethernet Switch and carefully unpack it. The box should contain the following items:

- The Industrial M12 Ethernet Switch x 1
- User's manual x 1
- 1.2m 4-pin D-code M12-to-RJ45 UTP cable x 1
- DIN-rail kit x 1
- Screws x 1 set

If any item is found missing or damaged, please contact your local reseller for replacement.

2. Hardware Introduction

2.1 Switch Front Panel

Figure 2-1 and Figure 2-2 shows the front panel of the Industrial M12 Ethernet Switch.

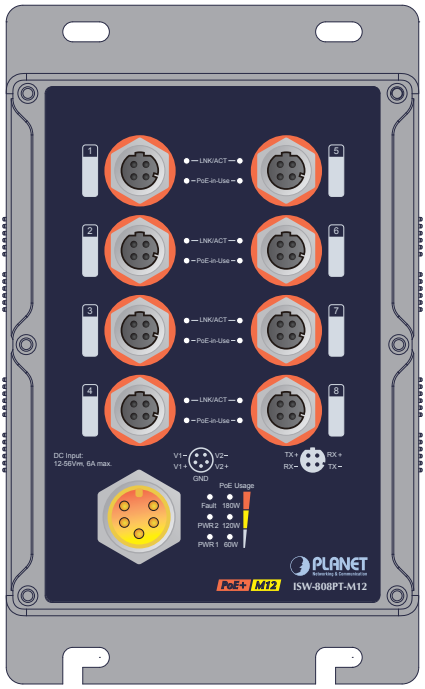


Figure 2-1: ISW-808PT-M12 Front Panel

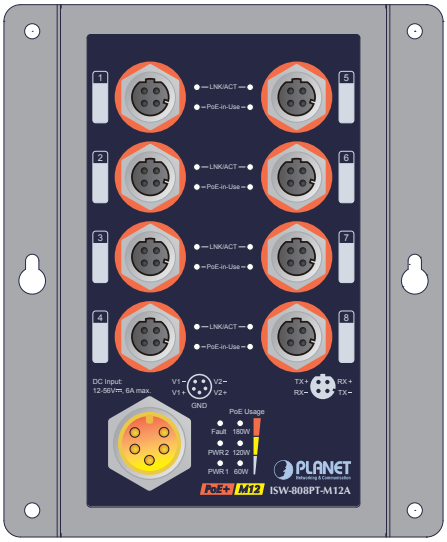


Figure 2-2: ISW-808PT-M12A Front Panel

2.2 LED Indicators

■ System

LED	Color	Function
PWR 1	Green	Lights to indicate DC power input 1 has power.
PWR 2	Green	Lights to indicate DC power input 2 has power.
Fault	Red	Lights to indicate either power 1 or power 2 has no power.

■ Per 10/100BASE-TX PoE+ Port

LED	Color	Function	
LNK/ACT	Green	Lights	To indicate the port is running at 10/100Mbps speed and successfully established.
		Blinks	To indicate the switch is actively sending or receiving data over that port.
PoE-in-Use	Amber	Lights	To indicate the port is providing 45~55 V DC in-line power.
		Off	To indicate the connected device is not a PoE powered device (PD).

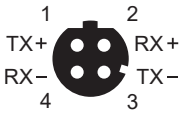
■ PoE Power Usage (Unit: Watt)

LED	Color	Function	
180W	Amber	Lights	To indicate the system consumes reach **180-watt** PoE power budget.
		Blinks	To indicates that the PoE usage is around **150W to 180W**.
120W	Amber	Lights	To indicate the system consumes over **120-watt** PoE power budget.
		Blinks	To indicates that the PoE usage is around **90W to 120W**.
60W	Amber	Lights	To indicate the system consumes over **60-watt** PoE power budget.
		Blinks	To indicates that the PoE usage is around **30W to 60W**.

2.3 M12 10/100TX Connector Pin Assignment

The Industrial M12 Ethernet Switch front panel provides eight 10/100BASE-TX Fast Ethernet ports in the form of **M12 4-pin D-coded** female connector. These ports are designed for Ethernet equipment connection through Cat5/5e UTP cables. The M12 input interface pinout is shown below:

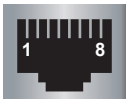
ISW-808PT-M12/ISW-808PT-M12A



Pinout 1: TX+
Pinout 2: RX+
Pinout 3: TX–
Pinout 4: RX–

Pinouts for the RJ45 (8-Pin) Port

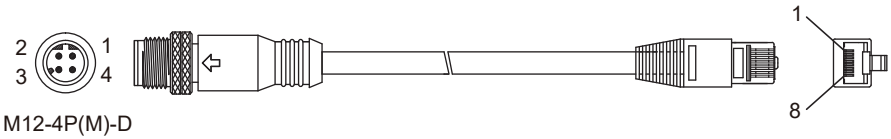
RJ45 (8-Pin)



Pin	Signal	
	MDI	MDI-X
1	TX+	RX+
2	TX–	RX–
3	RX+	TX+
6	RX–	TX–

4-pin M12 Female 10/100TX Connector Pin Assignment

2.4 M12 (4-pin, Male) to RJ45 (8-pin) Cable

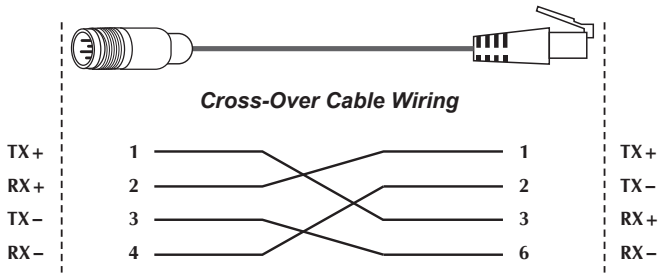


M12-4P(M)-D

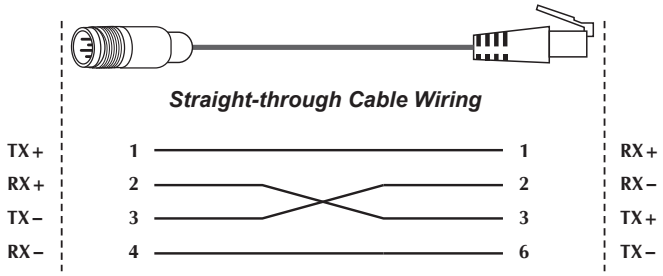
Note

As each Ethernet port of the Industrial M12 Ethernet Switch is running in **auto negotiation mode**, make sure the Ethernet ports of the corresponding Ethernet devices are also running in auto negotiation mode, otherwise, the Ethernet performance will be poor.

M12(4-Pin, M) to RJ-45(8-Pin) Cross-Over Cable Wiring

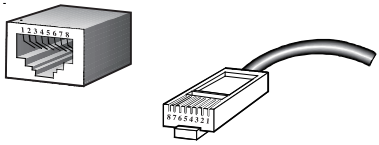


M12(4-Pin, M) to RJ-45(8-Pin) Straight-Trough Cable Wiring



The standard RJ45 receptacle/connector

There are 8 wires on a standard UTP/STP cable and each wire is color-coded. The following shows the pin allocation and colors of straight-through cable connection:

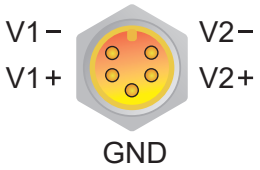


Straight-through Cable		SIDE 1	SIDE 2
1 2 3 4 5 6 7 8 1 2 3 4 5 6 7 8	SIDE 1	1 = White/Orange	1 = White/Orange
		2 = Orange	2 = Orange
		3 = White/Green	3 = White/Green
		4 = Blue	4 = Blue
		5 = White/Blue	5 = White/Blue
	SIDE 2	6 = Green	6 = Green
		7 = White/Brown	7 = White/Brown
		8 = Brown	8 = Brown

Please make sure your waterproof RJ45 cables are with same pin assignment and colors as the above picture before deploying the cables into your network.

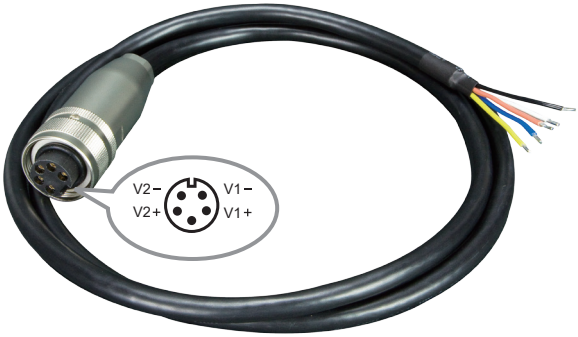
2.5 M23 DC Power Connector Pin Assignment

The front panel of the Industrial M12 Ethernet Switch provides one M23 5-pin male connector for dual DC power input.



2.6 M23 DC Power Cable Wiring

Please use the power cable with the M23 5-pin female connector from the Industrial M12 Ethernet Switch package for DC power input. The M23 DC power cable pin assignment is shown below:



CB-M23F5F-120 M23 DC power cable pin assignment and wiring code	
	V1 positive (+) pin = white cable
	V1 negative (-) pin = brown cable
	V2 positive (+) pin = black cable
	V2 negative (-) pin = yellow cable

Note

1. Make sure you connect the correct power pin to your DC power source.
2. The wire gauge for the power cable should be in the range of 12 ~ 24 AWG.
3. The DC power input range is 12 ~ 56V DC.

3. Connecting M12 Cable

Note	This following pictures show how to install the device.

Step 1: Turn counterclockwise to remove the waterproof screw nuts of an M12 connector and power input.

Step 2: Insert the M12 UTP male connector into the M12 female Ethernet port of the Industrial M12 Ethernet Switch.

Step 3: Turn clockwise to tighten the screw nut of the M12 connector and make sure the connection is tight.

Step 4: Insert the M23 power female connector into the M23 male port of the power input.

Note

The box doesn't include the **M23 5-pin A-coded female connector power cable**.

Step 5: Turn clockwise to tighten the screw nut of the M12 power connector.

Step 6: Please refer to chapter 2.2 for LED indicators.

Note

Before connecting the DC power cord, please check whether your local DC power source is stable.

Note

Make sure to tightly close all interfaces to have waterproof effect.

4. Customer Support

Thank you for purchasing PLANET products. You can browse our online FAQ resource and User's Manual on PLANET Web site first to check if it could solve your issue. If you need more support information, please contact PLANET switch support team.

PLANET online FAQs:
http://www.planet.com.tw/en/support/faq

Switch support team mail address:
support@planet.com.tw

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