

# Industrial IP67 Rated 8-Port 10/100Mbps M12 Fast Ethernet PoE Switch with Wide Operating Temperature



In last few years, PLANET has launched various IP30 protected Industrial products which can deployed and provide stable Ethernet performance under difficult Industrial environments. To further satisfy some specific Industrial environment, PLANET now releases new series of Industrial Solution, the ISW-804PT-M12, to provide higher level protection ability with the following features:

- Industrial Protected IP67 Metal Case
- Robust M12 Ethernet Connector
- Waterproof / Dustproof
- IEEE 802.3af PoE
- Wide Temperature Support

## *Industrial IP67 Metal Case and Robust M12 PoE Ethernet Connector Interface*

The ISW-804PT-M12, the Industrial 8-Port 10/100Mbps M12 PoE Fast Ethernet Switch, is designed with the IP67 industrial case, providing a high level of immunity against electromagnetic interference and heavy electrical surges which are usually found on plant floors or in curb side traffic control cabinets. The compact, IP67 standard metal case of the ISW-804PT-M12 allows either DIN rail or wall mounting installation for efficient use of cabinet space.

The ISW-804PT-M12 is equipped with eight 10/100Base-TX auto-negotiation ports M12 connector with **4-Port IEEE 802.3af PoE (Port 5 to port 8)**; each PoE port provides 15.4 Watts PoE output. The M12 connector provides tightly and strong connection and guarantees stable Ethernet operation performance under high vibration and shock environment.



## *Stable Operate Performance under Difficult Environments*

Being able to operate under the temperature range from -40 to 75 Degree C, the ISW-804PT-M12 can be placed in almost any difficult environment. The ISW-804PT-M12 also possesses an integrated power supply source with wide range of voltages (48V DC) for worldwide high availability applications requiring dual or backup power inputs.

## *Robust Switch Performance*

The ISW-804PT-M12 has 2K MAC Address table and offers wire-speed packets transfer performance without risk of packet loss; the high data throughput of the device makes it ideal for most Fast Ethernet environments. With a 1.6Gbps internal switching fabric and featuring auto negotiation support in each of the eight Fast Ethernet port, the ISW-804PT-M12 can handle large amounts of data in a secure topology linking to a backbone or high capacity servers.

The flow control function enables the ISW-804PT-M12 to provide fast and reliable data transfer. All of the M12 RJ-45 copper interfaces in the ISW-804PT-M12 support 10/100Mbps Auto-Negotiation for optimal speed detection through RJ-45 Category 3, 4, 5, 5e, 6 cables. The standard Auto-MDI/MDI-X support can detect the type of connection to any Ethernet device without requiring special straight or crossover cables.

## KEY FEATURES

### PHYSICAL PORT

- 8-Port 10/100Mbps M12 Connector with IP67 protection
- 4-Port IEEE 802.3af PoE Ports (**Port 5 to port 8**)

### LAYER 2 FEATURES

- Supports Auto-Negotiation and 10/100Mbps half / full duplex mode
- High performance Store and Forward architecture, runt/CRC filtering eliminates erroneous packets to optimize the network bandwidth
- Prevents packet loss with back pressure (Half-Duplex) and IEEE 802.3x PAUSE frame flow control (Full-Duplex)
- Backplane (Switching Fabric): 1.6Gbps
- Integrated address look-up engine, supports 2K absolute MAC addresses
- Automatic address learning and address aging
- CSMA/CD Protocol

### POWER OVER ETHERNET

- 4 Ports compliant with IEEE 802.3af Power over Ethernet / PSE Standard
- Supports PoE Power up to 15.4 Watts for each PoE port
- Auto-Detect powered device (PD)
- Circuit Protection prevent power interference between ports
- Remote power feeding up to 100m

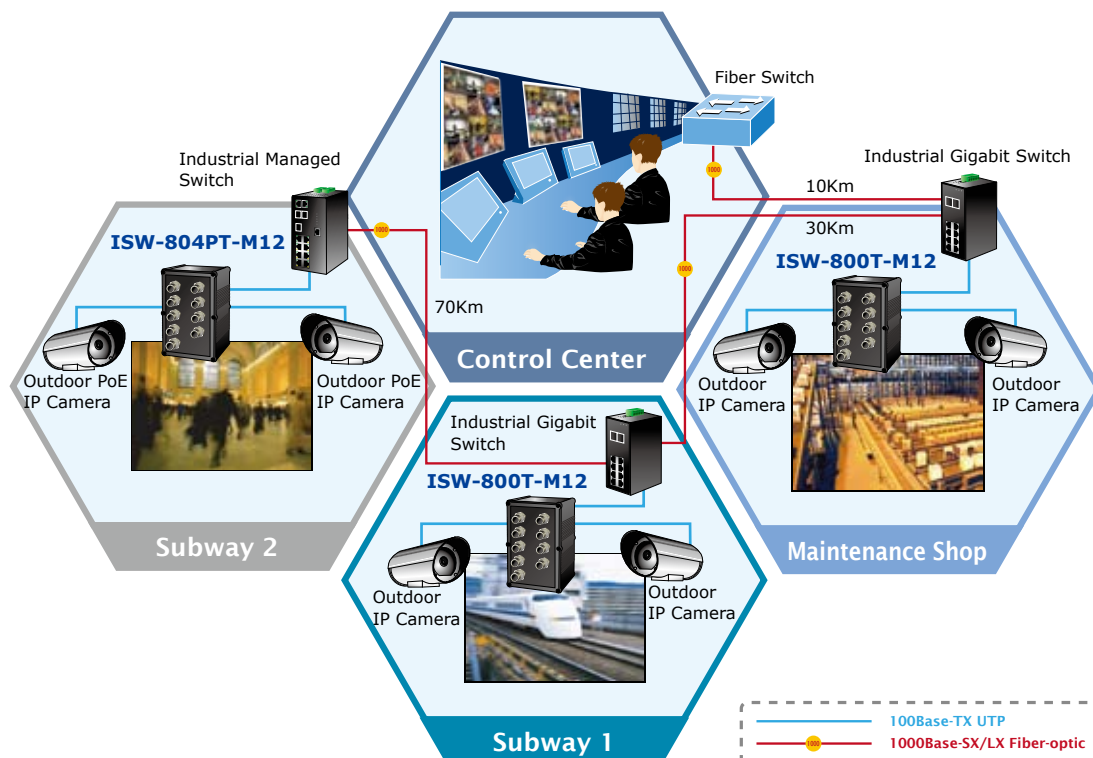
### INDUSTRIAL CASE / INSTALLATION

- IP67 Aluminum metal case protection
- DIN Rail and Wall Mount Design
- Waterproof / dustproof design
- 48V DC, redundant power with polarity reverse protect function and connective removable terminal block for master and slave power
- Supports EFT protection 6000 VDC for power line
- Supports 6000 VDC Ethernet ESD protection
- -40 to 75 Degree C operating temperature

## APPLICATIONS

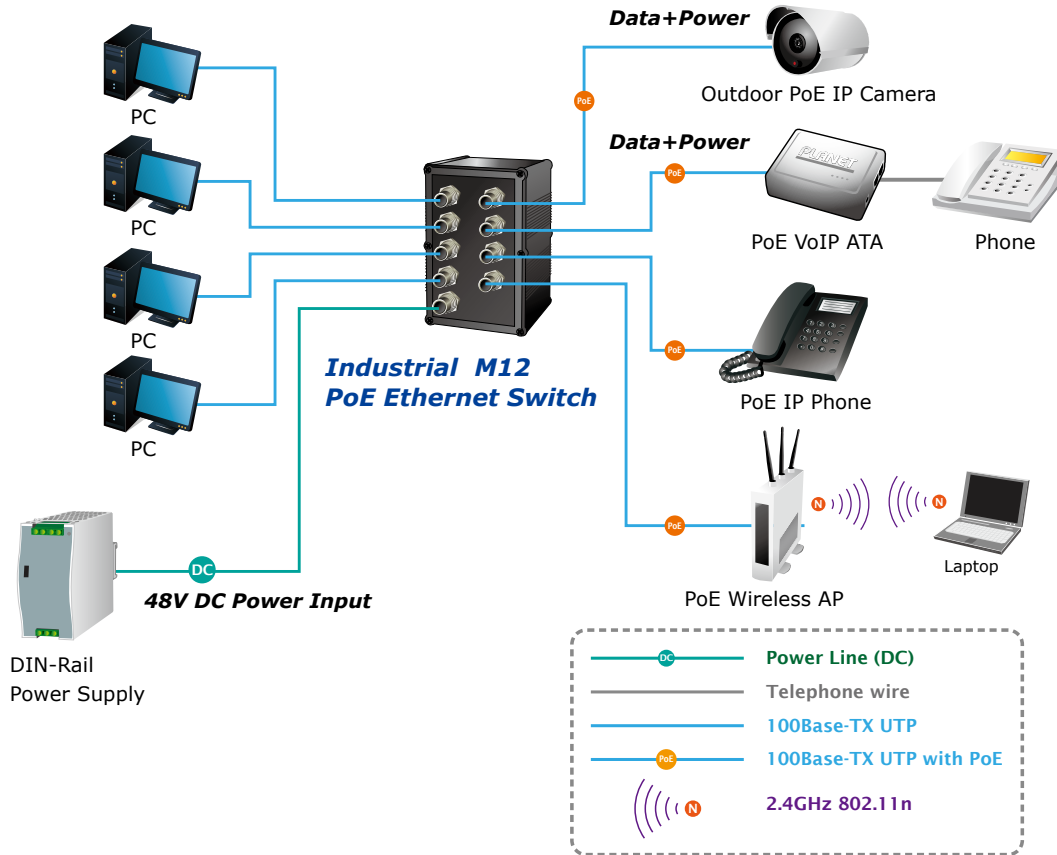
### Public Construction for Data Collection and Forwarding

The ISW-804PT-M12 is equipped with eight 10/100Base-TX auto-negotiation ports M12 connector interfaces, and offers 1.6Gbps non-blocking switch fabric and the 2K MAC Address table. It can perform wire-speed packets transfer without risk of packet loss. The M12 connector provides tightly, strong connection and guarantees stable Ethernet operation performance under high vibration and shock environment such as public Transmission System and Railway Transmission.



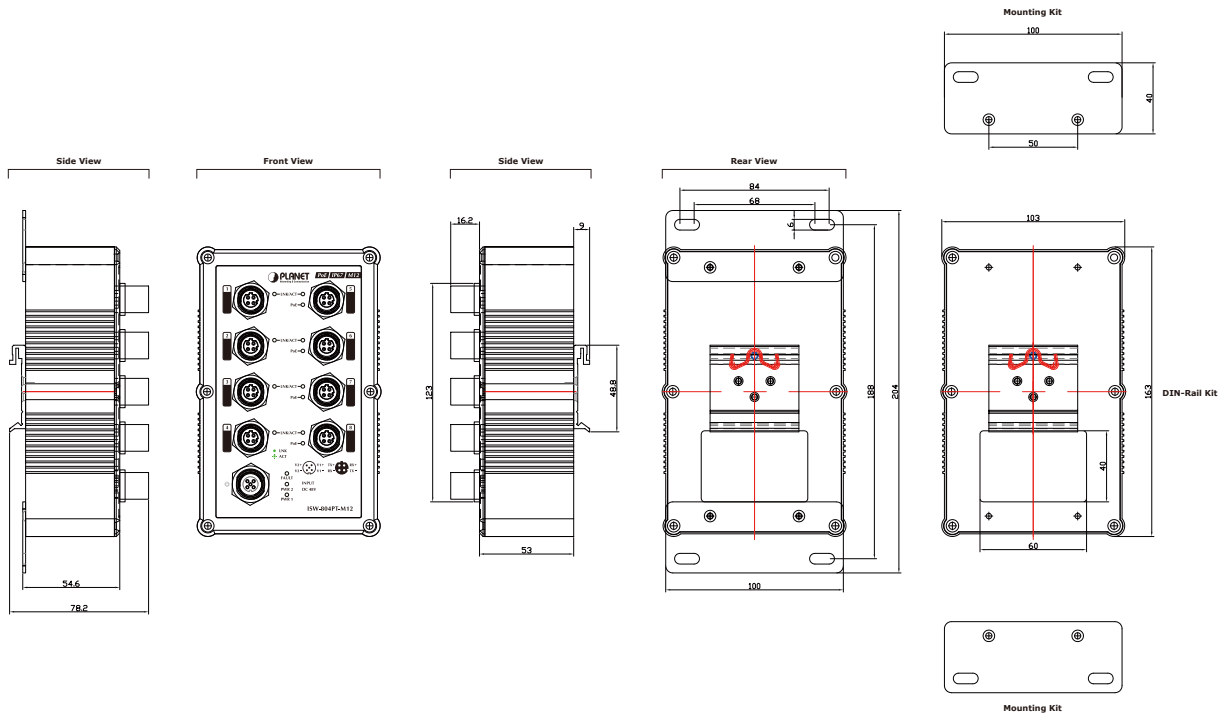
*Industrial area Department / Workgroup PoE Switch*

Providing 4 PoE, in-line power interface, the ISW-804PT-M12 can easily build a power centrally-controlled IP phone system, IP surveillance system, and wireless AP group in the harsh Industrial environment. For instance, 4 camera / AP can be easily installed for surveillance demands or building a wireless roaming environment in the industrial area. Without the power-socket limitation, the ISW-804PT-M12 series makes the installation of IP cameras or WLAN AP more easily and efficiently.



**SPECIFICATION**

Product	<b>Industrial IP67 Rated 8-Port 10/100Mbps M12 Ethernet Switch with 4-Port PoE (-40~75 Degree C)</b>
Model	ISW-804PT-M12
<b>Hardware Specification</b>	
10/100Base-TX Ports	8 x M12, 4-Pin D-coded female connector
IEEE 802.3af PoE Ports	4, port 5 to port 8
Power Connector	1 x M12, 5-Pin A-Coded male connector
Enclosure	IP67 Aluminum
Dimension (W x D x H)	163 x 103 x 53 mm
Weight	976g
Power Requirement	48V DC, Redundant power with polarity reverse protection function
Power Consumption / Dissipation	65 Watts / 221 BTU
Installation	DIN rail kit and wall mount ear
ESD Protection	6KV DC
EFT Protection	6KV DC
LED Indicators	Power LED: <ul style="list-style-type: none"> <li>• Power 1 / Power 2 / FAULT (Green)</li> </ul> 10/100Base-TX Port (Port-1 to Port-8): <ul style="list-style-type: none"> <li>• LNK/ACT (Green)</li> </ul> PoE Port (Port-5 to Port-8): <ul style="list-style-type: none"> <li>• PoE In-Use (Orange)</li> </ul>
Network Cables	10Base-T: 2-Pair UTP Cat.3,4,5 up to 100m (328ft) 100Base-TX: 2-Pair UTP Cat.5, 5e, 6 up to 100m (328ft) EIA/TIA-568 100-ohm STP (100m, max.)
<b>Switch Specification</b>	
Switch Processing Scheme	Store-and-Forward
Address Table	2K entries
Flow Control	Back pressure for half duplex IEEE 802.3x Pause Frame for full duplex
Switch Fabric	1.6Gbps
Throughput (packet per second)	1.19Mpps@64Bytes
Maximum Transmit Unit	1536 bytes
<b>Standards Conformance</b>	
Standards Compliance	IEEE 802.3 Ethernet IEEE 802.3u Fast Ethernet IEEE 802.3x Full-Duplex Flow Control IEEE 802.3af Power over Ethernet
Regulation Compliance	FCC Part 15 Class A, CE
Stability Testing	IEC60068-2-32 (Free fall) IEC60068-2-27 (Shock) IEC60068-2-6 (Vibration)
<b>Power over Ethernet</b>	
PoE Standard	IEEE 802.3af Power over Ethernet / PSE
PoE Power Supply Type	End-Span
PoE Power Output	48V DC Per Port, 350mA . Max. 15.4 Watts
Power Pin Assignment	1/2(+), 3/6(-)
PoE Budget	60 Watts
<b>Environment</b>	
Temperature	Operating: -40~75 Degree C Storage: -40~75 Degree C
Humidity	Operating: 5~95% (Non-condensing) Storage: 5~95% (Non-condensing)
<b>Standard Accessories</b>	
Packet Contents	1 x M12 4-Pin D-Coded Male connector to RJ-45 Ethernet cable, 1.2m 1 x M12 5-Pin A-Coded Female connector power cable, 1.2m 1 x Wall-Mount Kit 1 x DIN-Rail Kit (attached to M12 switch as default) 1 x User's Manual



Dimensions ( unit = mm )

### ORDERING INFORMATION

**ISW-804PT-M12** Industrial IP67 Rated 8-Port 10/100Mbps M12 Ethernet Switch with 4-Port PoE (-40~75 Degree C)

### RELATED PRODUCTS

**ISW-800T-M12** Industrial IP67 Rated 8-Port 10/100Mbps M12 Ethernet Switch (-40~75 Degree C)

### ACCESSORIES

- CB-M12RJ** 4-Pin D-Coding M12 Male to RJ-45 Ethernet Cable, 1.2 meters
- CB-M12RJ-10** 4-Pin D-Coding M12 Male to RJ-45 Ethernet Cable, 10 meters
- CB-M12EXT-10** 4-Pin D-Coding M12 Male to D-Coding M12 Female Ethernet Cable, 10meters