

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



In the last few years, PLANET has launched various IP67-rated industrial products which can be deployed and provide stable Ethernet performance under difficult Industrial environments. To further satisfy some specific industrial environments, PLANET has released the ISW-800T-M12, a new series of Industrial Solutions, to provide higher level protection ability with the following features:

- Industrial IP67-rated aluminum case
- Robust M12 Ethernet connector
- Waterproof and dustproof
- Wide temperature range

### Protective Aluminum Case and Robust M12 Ethernet Connector Interface

The ISW-800T-M12 Industrial 8-Port 10/100Mbps M12 Fast Ethernet Switch comes with a IP67-rated 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. Its compact case allows either DIN rail or wall mounting installation for efficient use of cabinet space.

The ISW-800T-M12 is equipped with eight 10/100BASE-TX auto-negotiation ports and M12 connectors. The M12 connector provides tightly, strong connection and guarantees stable Ethernet-based performance even in an environment where high vibration and shock exist.



### Physical Port

- 8-port 10/100Mbps M12 connector with IP67 protection

### 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, supporting 2K absolute MAC addresses
- Automatic address learning and address aging
- CSMA/CD Protocol

### Industrial Case and Installation

- IP67-rated aluminum case
- DIN-rail and wall-mount designs
- Waterproof and dustproof
- 9 to 48V DC, redundant power with reverse polarity protection 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 degrees C operating temperature

### Stable Operating Performance under Difficult Environments

Being able to operate under the temperature range from -40 to 75 degrees C, the ISW-800T-M12 can be placed in almost any difficult environment. The ISW-800T-M12 also possesses an integrated power supply source with a wide range of voltages (9 to 48V DC) for worldwide high availability applications requiring dual or backup power inputs.

### Robust Switch Performance

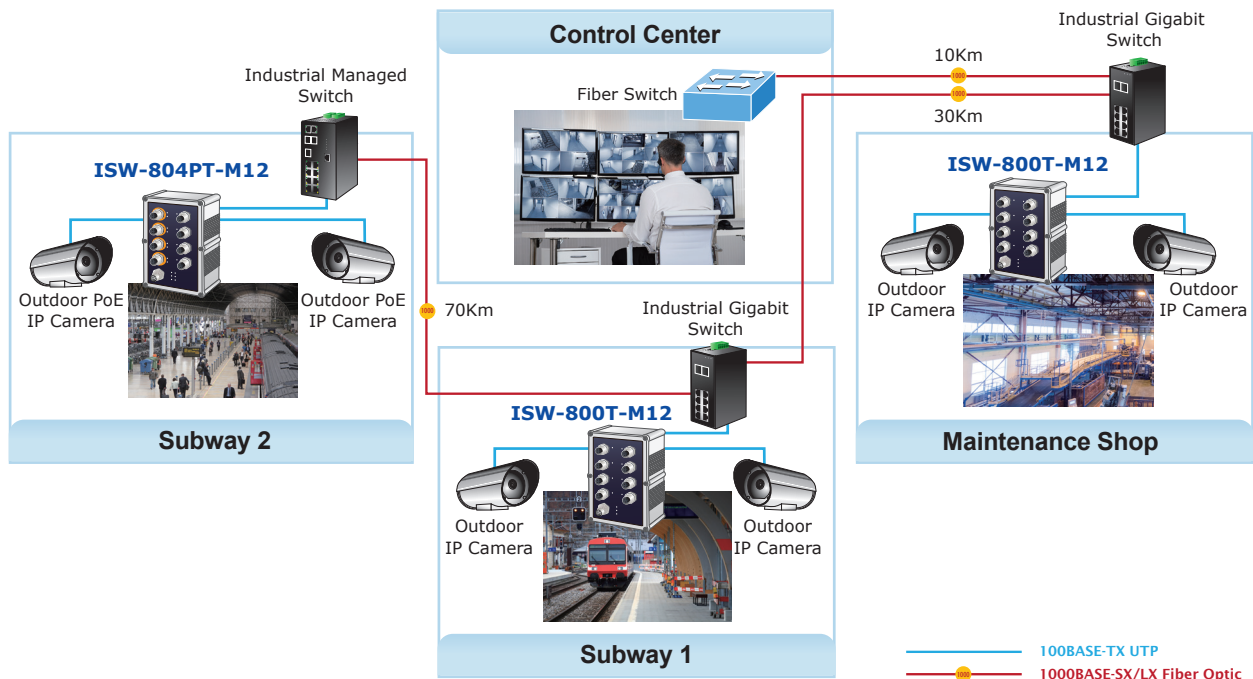
The ISW-800T-M12 has 2K MAC address table and offers wire-speed packets transfer performance without the risk of packet loss; the high data throughput of the device makes it ideal for most Fast Ethernet environments. With a 1.6Gbps internal switching fabric and featuring auto negotiation support in each of the eight Fast Ethernet ports, the ISW-800T-M12 can handle large amounts of data in a secure topology linking to a backbone or high-capacity server.

The flow control function enables the ISW-800T-M12 to provide fast and reliable data transfer. All of the M12 RJ45 copper interfaces in the ISW-800T-M12 support 10/100Mbps auto negotiation for optimal speed detection through RJ45 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-through or crossover cables.

## Applications

### Public Construction for Data Collection and Forwarding

The ISW-800T-M12 is equipped with eight 10/100BASE-TX auto-negotiation ports and M12 connectors, and offers 1.6Gbps non-blocking switch fabric and the 2K MAC address table. Packets transmitted between devices are fast and safe with the ISW-800T-M12. Moreover, its securely-fastened M12 connectors are ideal for public transportation systems like high-speed rail where shocks and high vibrations can be experienced.



## Specifications

Model	ISW-800T-M12
<b>Hardware Specifications</b>	
10/100BASE-TX Ports	8 x M12, 4-pin D-coded female connector
Power Connector	1 x M12, 5-pin A-coded male connector
Enclosure	IP67 aluminum
Dimensions (W x D x H)	103 x 53 x 163 mm
Weight	976g
Power Requirements	9~48V DC, redundant power with reverse polarity protection
Power Consumption / Dissipation	4 watts/13 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>
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 Specifications</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
Regulatory Compliance	FCC Part 15 Class A, CE
Stability Testing	IEC60068-2-32 (Free fall) IEC60068-2-27 (Shock) IEC60068-2-6 (Vibration)
<b>Environment</b>	
Temperature	Operating: -40~75 degrees C Storage: -40~75 degrees 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 RJ45 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

## Ordering Information

ISW-800T-M12	Industrial IP67-rated 8-Port 10/100Mbps M12 Ethernet Switch (-40~75 degrees C)
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## Accessories

CB-M12D4MRJ-120	4-Pin D-coded M12 Male to RJ45 Ethernet Cable, 1.2 meters
CB-M12D4MRJ-1000	4-Pin D-coded M12 Male to RJ45 Ethernet Cable, 10 meters
CB-M12D4MD4F-1000	4-Pin D-coded M12 Male to D-coded M12 Female Ethernet Cable, 10meters

## Related Products

IGS-5227-6MT	Industrial IP67-rated 6-Port 10/100/1000T M12 Managed Ethernet Switch (-40~75 degrees C, A-coded M12)
IGS-5227-6MT-X	Industrial IP67-rated 6-Port 10/100/1000T M12 Managed Ethernet Switch (-40~75 degrees C, X-coded M12)
IGS-5227-6T	Industrial IP67-rated 6-Port 10/100/1000T Managed Ethernet Switch (-40~75 degrees C)
IGS-5227-4MP2MT	Industrial IP67-rated 4-Port 10/100/1000T 802.3at PoE + 2-Port 10/100/1000T Managed Ethernet Switch (-40~75 degrees C)
IGS-5226-4P2T	Industrial EN50155 4-Port 10/100/1000T 802.3at PoE + 2-Port 10/100/1000T Managed Ethernet Switch (-40~75 degrees C)
IGS-604HPT-RJ	Industrial IP67-rated 4-Port 10/100/1000T 802.3at PoE + 2-Port 10/100/1000T Managed Ethernet Switch (-40~75 degrees C)
IGS-604HPT-M12	Industrial IP67-rated 4-Port 10/100/1000T 802.3at PoE + 2-Port 10/100/1000T Managed Ethernet Switch (-40~75 degrees C)
ISW-808PT-M12	Industrial IP67-rated 8-Port 10/100TX M12 802.3at PoE+ Switch
ISW-808PT-M12A	Industrial 8-Port 10/100TX M12 802.3at PoE+ Switch
ISW-804PT-M12	Industrial IP67-rated 8-Port 10/100Mbps M12 Ethernet Switch with 4-Port PoE (-40~75 degrees C)