Model: VM-SW4P1-60W

Features

4-Port 10/100Mbps IEEE 802.3af/at PoE Switch (End-Span PSE)

•Comply with IEEE802.3, IEEE802.3u, IEEE802.3af/at standards

•Support IEEE802.3x full-duplex flow control; support Auto MDI/MDIX

•4-Port support 48V-56VDC power to PoE powered devices

•Provide 15.4W or 30W power to powered devices

•60-watts PoE budget

•Extra 1-Port 10/100Mbps UPLINK RJ-45

•PoE data & power transmission distance up to 100meters

•Port based VLAN for Enhancing Security

•Backplane Bandwidth: 1.0Gbps

•Excellent anti-thunder, anti-static and anti-interference ability

•Surge Protection: 2KV

•Easy and convenient to use, plug & play, no need to configure

•Galvanized housing for stable and durable working life

•Various LED display functions can real-timely display the device's current

  working conditions, and help prompt facility and remove trouble easily.

Overview

The VM-SW4P1-60W provides 4-port 10/100Mbps IEEE 802.3af/at Power over Ethernet with a total of 60 watts of PoE budget, which is an ideal solution to fulfill the demand of sufficient PoE power for network applications. It's able to drive 4 IEEE 802.3af/at compliant powered devices.

The VM-SW4P1-60W is an ideal solution for securing IP surveillance infrastructure. It provides both 802.3af/at PoE functions along with 4 x 10/100Base-TX ports featuring 15.4-watt 802.3af/30-watt 802.3at PoE in RJ-45 interfaces and extra 1 x 10/100Mbps UPLINK RJ-45 port to connect with another switch or NVR. For instance, one VM-SW4P1-60W can be combined with one 4-Channel NVR and 4 PoE IP cameras as a kit for the administrators to centrally and efficiently manage the surveillance system in the local LAN and the remote site via Internet.

The VM-SW4P1-60W RJ-45 interfaces support 10/100Mbps Auto-Negotiation at downlink port from 1 to 4 and one uplink port optimal speed detection through RJ-45 Category 6, 5e or 5 cables. It also supports standard Auto-MDI/MDI-X that can detect the type of connection to any Ethernet device without requiring special straight or crossover cables.

The VM-SW4P1-60W supports port-based VLAN function, which effectively prevent the whole system from internet broadcast storm to make the data transfer much safer. When the VLAN mode is enabled, the data cannot be forwarded among DOWNLINK RJ-45 ports, but DOWNLINK ports and UPLINK RJ-45 port can communicate with each other.

With data and power over Ethernet formed one unit, the VM-SW4P1-60W reduces cabling requirements and eliminates the need for dedicated electrical outlets on the wall, ceiling or any unreachable place. A wire that carries both data and power can lower the installation costs, simplify the installation effort and eliminate the need for electricians or extension cords. Providing 4 PoE interfaces, the VM-SW4P1-60W is ideal for small businesses and workgroups requiring deploying the PoE for the wireless access points, IP-based surveillance IP phones in any place easily, efficiently and cost-effectively.

Front & Rear Panel

Front Panel
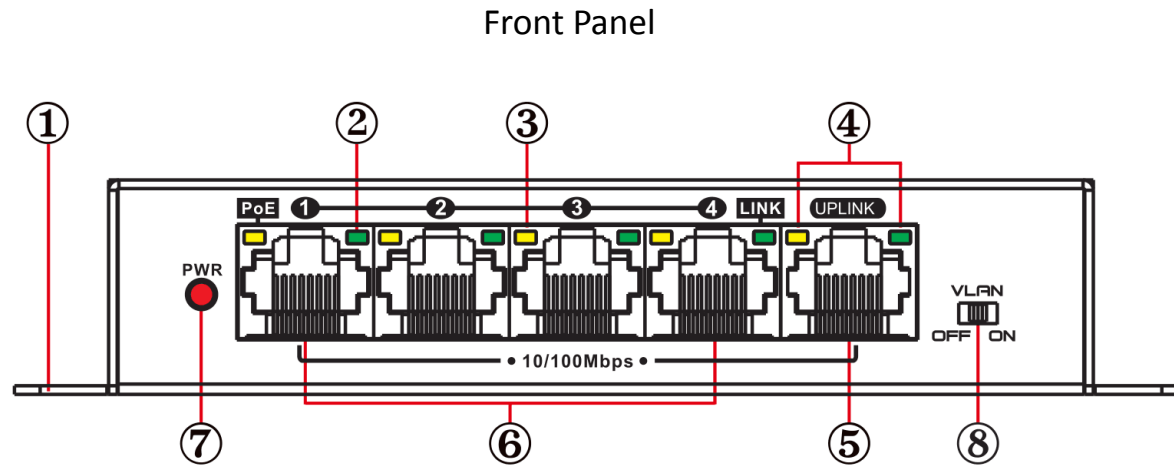
① Rack-mounting ears: Cabinets for product installation or Wall installation

② Switch Port Indicator: Green, Light on: when the port is connected, Flashes when is transferring data, OFF: No link

③ PoE Indicator: **Yellow**　　Light on: when device is powered　　Light off: when device is not detected or powered

④ Uplink Indicator: Lights when the port is connected, Flashes when is transferring data, OFF: No link

⑤ Uplink FE port: Transfers data to other devices

⑥ PoE port: Supplies power to PD device and transfers the data

⑦ Power Indicator: Red　　Light on: with power　　Light off: no power
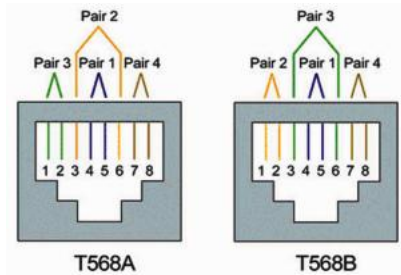
⑧ VLAN Switch: Slide switch to "ON", VLAN function opens

Rear Panel

INPUT:DC48~56V

②   ①
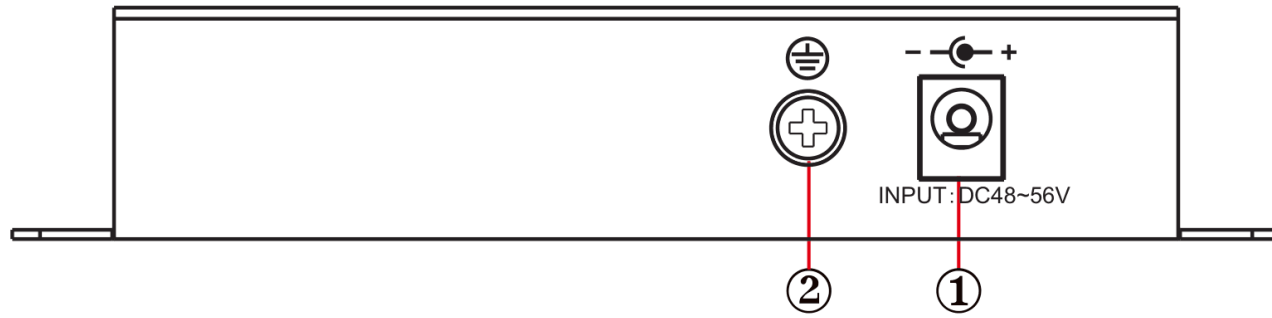
① Power Input: DC 48~56V

② Ground Connection

RJ 45 Define

	1	2	3	4	5	6	7	8
T568A	White Green	Green	White Orange	Blue	White Blue	Orange	White Brown	Brown
T568B	White Orange	Orange	White Green	Blue	White Blue	Green	White Brown	Brown

How to make a network cable

To create a network cable, you will first need the equipment listed below.

1. Cat5e, Cat6, or Cat7 cable
2. RJ-45 connectors
3. Crimping tool
4. Wire stripper or Knife

The wire sequence of RJ45 connector must comply with international standard of EIA/TIA 568A or EIA/TIA 568B.

1) We recommend stripping at least half an inch of the cable to expose the inner wires.

2) Separate the wires within the cable after the network cable jacket has been removed so that they can be put into the RJ-45 connector.

3) The CAT5 twisted-pair cable consists of four twisted wires, each color coded; 8 wires must be correctly lined as the standards of EIA/TIA 568A or EIA/TIA 568B.

4) Cut thread residue and leave 1.5cm wire exposed outside the insulating layer and ensure 8 wires are straighten and neat.

5) Place the cable into the RJ-45 connector and then use the crimping tool to attach the connector.

6) Repeat above steps for the other end of the cable; the wire sequence of both ends of the cable is suggested to be identical.

7) Make sure to test the cables before installing them once both ends of the cable have been completed.

Quick Setup Guide

Package Contents

1) VM-SW4P1-60W: 1pc   2) 52VDC/1.25A Power adapter: 1pc

3) Rubber feet: 4pcs   4) Manual: 1pc

Step 1: Begin with all input/output devices turned off and power cables are removed.

Step 2: Connect RJ-45 port of PoE cameras with Downlink RJ-45 port of PoE switches over standard Cat 5e/6 cables.

Step 3: Connect Uplink port of PoE switches with RJ-45 port of NVR or computer or other devices over standard Cat 5e/6 cables.

Step 4: Connect 52VDC/1.25A power adapter with PoE switches.

Step 5: Make sure above connection is properly finished, then turn on the power.

Note:

All RJ-45 Ports of this device support Auto MDI/MDIX, so the different wire sequence of both ends of the cable is allowed.

Technical Specifications

Model		VM-SW4P1-60W
Product Name		4-Port 10/100Mbps IEEE 802.3af/at PoE Switch (End-Span PSE)
Power Supply	Power Supply Mode	Power Adaptor
	Voltage Range	DC48~56V
	Power Consumption	The device <5W PoE power supply ≤60W
Network Port Parameter	Network Port	Ethernet Downlink RJ-45 Port: 4*10/100Mbps Uplink RJ-45 Port: 1*10/100Mbps
	Transmission Distance	1~4 Ethernet Downlink RJ-45 Port: 100m Uplink RJ-45 Port: 100m
	Transmission Medium	1~4 Ethernet Downlink RJ-45 Port: Cat5e/6 standard cable Uplink RJ-45 Port: Cat5e/6 standard cable
	PoE Standards	IEEE802.3af/at
	PoE Power Supply Mode	End-span method
	PoE Power Supply Wattage	Each port ≤30W Whole device≤60W
Network Switch Specification	Network Standards	IEEE802.3 10BASE-T, IEEE802.3u 100BASE-TX/FX, IEEE802.3az
	Swap Mode	Store-and-forward
	Data-Caching Mechanism	448K
	MAC Address List	1K
	Backplane Bandwidth	1.0Gbps
	Forwarding Capacity	0.74Mpps
Indicator/Button	Power Indicator	Red LED on: power on
	Fast Ethernet Uplink Port	LED on: link up, off: link down, blinks: data transferring
	PoE Indicator	4 PoE indicators (Yellow)
	PoE Network Port Indicator	1~4 port indicators blink while data transferring
	VLAN Switch	Slide switch to "ON", VLAN function opens
Protection Level	Surge Protection	2KV (common mode),10/700us IEC61000-4-5 500V (differential mode),10/700us IEC610000-4-5
	Electrostatic Protection	Contact Discharge: ±2KV Air Discharge: ±2KV Standard: IEC61000-4-2
Reliability	Mean time between failures (MTBF)	＞50000h
Mechanical	Dimensions (L*W*H)	115mmx77.5mmx25mm
	Housing	Galvanized
	Body Color	Black
	Net Weight	400g
Environmental	Operating Temperature	0℃~55℃
	Storage Temperature	-40℃~70℃
	Relative Humidity	0~95% (non-condensing)

Applications

• Security Monitoring System

• Multimedia Network Teaching System

• Medical Monitoring Display System

• Industrial Automation Control System

• Banking, securities, financial information display system

• Remote Network Server Monitoring

• Department Store Security

• Casino Security

• Hospitals, Airports and banks

• School Campuses

Application Diagram

Power Cable
UTP Cable
PoE Cable
Fiber Cable

PoE Wireless

IP Camera   PD Splitter

PoE Camera

Media converter   NVR

PoE VoIP Phone