SW3220-4F

User Manual

1. Specification

| Model	SW3218-2F
Ethernet Ports	16* 10/100/1000Base-T(X)
	RJ45 port supports full-duplex/half-duplex and MDI/MDI-X auto-negotiation.
Fiber ports	4* 10/100Base-FX
Fiber Optical port parameters	Wavelength: Singlemode 1310nm/1550nm, Multimode 1310nm Connector type: SC、ST、FC (Optional) Transmission distance: Singlemode 20Km~120Km optional, Multimode2Km Data rate: 155Mbps
Power	DC Model: DC 9~60V (Supports dual power redundancy, non-polarized input)
	AC Model: AC85~264V/DC110~370V (Single power supply)
Consumption	<12W（@24VDC)
IEE Standard	IEEE802.3、802.3u、802.3x、802.1P、802.1Q、802.1D/W
Switching Function	Supports VLAN, Port Rate Limiting, Storm Control, Port Aggregation, Flow Control
Ring Network Redundancy	Supports STP/RSTP, Private Ring Technology
Multicast	Supports IGMP v1/v2, IGMP Snooping, GMRP, Static Multicast
Management	Supports Console, Web Browser, SNMP v1/v2c
Switching mode	Store -Forward
Backplane Bandwidth	12.8Gbps
Buffer Size	4.1Mbit
MAC Address	8K
Dimension	160mm×74mm×122mm（excluding DIN rail and terminal blocks）
Operating Temperature	-40℃~+75℃
Storage Temperature	-40℃~+85℃
Humidity	5%~95%RH (non-condensing)
EMC	IEC61000-4-2 (ESD), Level 4
	IEC61000-4-5(Surge), Level 4 ※ The ports support 6KV surge protection.
	IEC61000-4-4(EFT), Level 4

2. Hardward and Installation

❖ **Cautions**

To avoid damage to the device or personal injury due to improper use, please note the following:

1. Ensure the switch is powered off during installation.

2. Make sure the input voltage is within the range specified for the switch.

3. When connecting the power supply, ensure the power cord is properly connected to the power terminals before powering on.

4. When powering off, disconnect the power supply before removing the power cord.

5. Do not open the switch's casing.

6. Do not place heavy objects on the switch.

7. Keep the switch clean and do not use any liquids to clean it.

❖ **Installation**

1. Position the switch at an upward angle so that the upper hook on the back of the switch clips onto the top of the DIN rail.

2. Press the switch downward to secure the lower hook on the back of the switch into the DIN rail. Once clipped in, if there is no noticeable movement, the switch is securely installed.
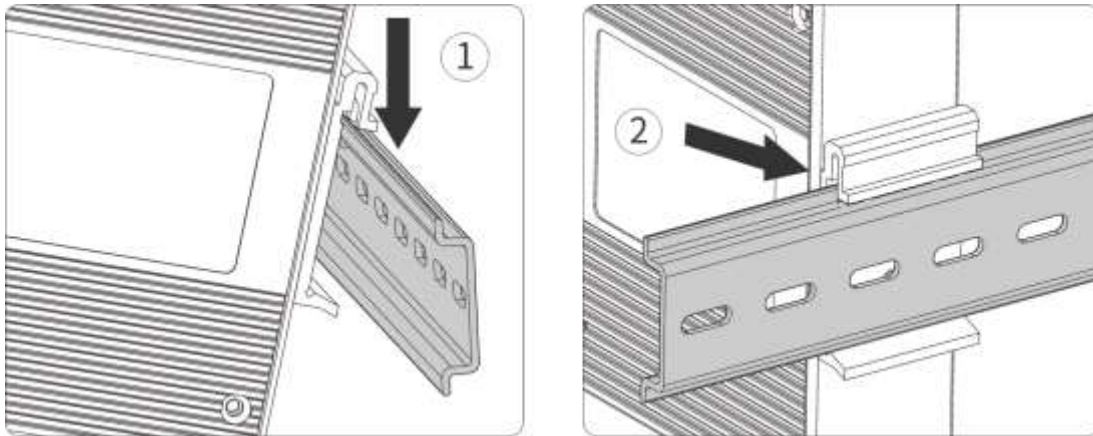
❖ **Power Input**

The industrial Ethernet switch provides a 5-position, 5.08mm-pitch industrial-grade terminal block as the power input interface. The connection method differences depending on the power input range:

➢ **DC Model**: Powered by DC 9~60V, supports dual power inputs with non-polarized input. V1 and V2 serve as backups for each other, and you can connect to either V1, V2, or both simultaneously.

➢ **AC Model**: Powered by AC 85~264V / DC 110~370V. Connect the power lines to the V1+ (L) and V1- (N) terminals only. Do not connect to the V2+ or V2- terminals. Please exercise caution to prevent electric shock.
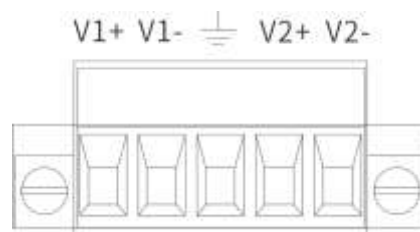

❖ Power failure alarm output

The switche supports power failure alarm functionality.

The power failure alarm output terminal uses a 3-position, 3.81mm pitch industrial-grade terminal. The power failure alarm output consists of one normally open and one normally closed relay, with the middle position as the common terminal. The two terminals on the left are for the normally open contact, and the two terminals on the right are for the normally closed contact.

When the switch is operating normally, the normally open contact is energized and closed, while the normally closed contact is open. When the system loses power, the normally open contact is de-energized and open, and the normally closed contact is closed. The recommended relay switching load capacity is 1A (@24VDC).

ALARM
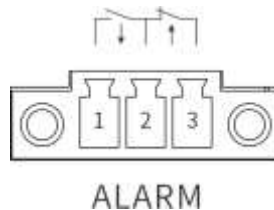
❖ Ethernet

The RJ45 port supports CAT-5 twisted pair cables and automatically recognizes straight-through and crossover cables, with a transmission distance of up to 100 meters. Users can connect their network devices (such as workstations, hubs, or switches) to the switch's RJ45 port using Cat5 twisted pair cables.

❖ Fiber Optical

The switch series supports SC/ST/FC single-mode or multi-mode fiber optic interfaces. Please confirm the interface type before connection.

Precautions for Fiber Optic Connection:

1. Before connecting the optical port, please remove the protective cap from the fiber optic port. When the fiber optic port is not in use, do not remove the protective cap to keep the fiber optic port interface clean.

2. Check the fiber optic connector for any damage or dirt. If you find any of these issues, please feel free to contact us.

3. Connect the TX of the fiber optic port to the RX of the opposite fiber optic port, and connect the RX of the fiber optic port to the TX of the opposite fiber optic port. Please refer to the diagram below. If using a single-fiber optic port, a single fiber connection is sufficient.

4. After completing the connection, please check whether the L/A indicator light corresponding to the optical port on the device panel is lighted. If the indicator light is on, it indicates that the fiber optic connection is correct.

❖ Restore factory settings (Reload)

Press and hold the button for more than 5 seconds before releasing it, and the device will enter the factory reset state.

❖ Console

Provide one network management port in the form of an RJ45 port. During debugging, please use our company's standard RJ45 to DB9 debugging cable to connect to the PC's serial port. The communication standard for the port is a 3-wire RS232, and the debugging port wiring sequence is shown in the following figure.

Console debugging serial port communication parameters are as follows:

Baud rate: 115200, data bits: 8, parity bits: none, Stop position: 1. Flow control: none.
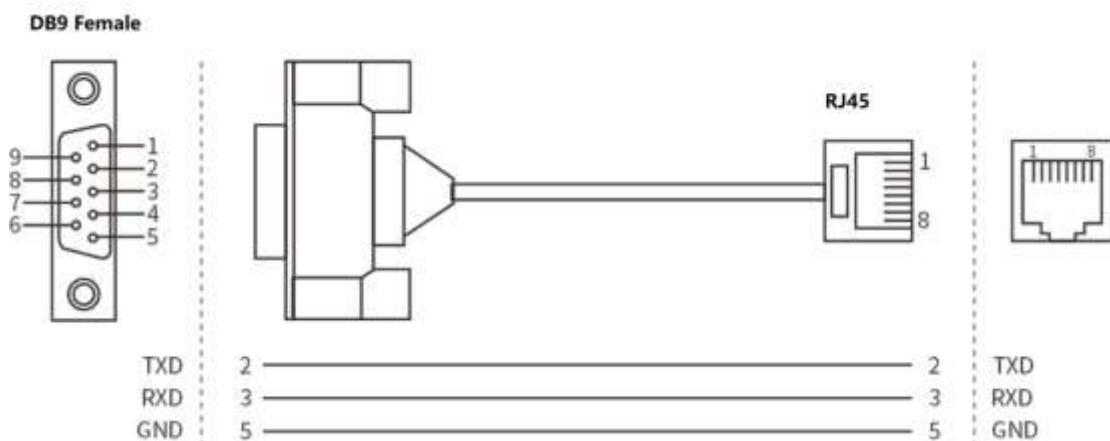
3. LED

❖ LED Indicator

| LED Indicators		Status	Definitions
Power LED	P1/P2	Steady On	Power Supply is on normal
		Off	Disconnection or malfucntion
System LED	SYS	Flash	The system is running normally
		Steady On/ Off	The system is not running or running abnormally
Alarm LED	ALM	Steady On	Port disconnection alarm, ring network alarm
		Flash	Relay has no alarm
Port LED	Speed(yellow)	Steady On	100M connected
		Off	10M connected or not connected
	Link/Act (green)	Steady On	Connection
		Flash	data transmission and reception
		Off	Discinnection or malfunction
Optic Led	17-20	Steady On	Connection
		Flash	data transmission and reception
		Off	Discinnection or malfunction

4. Web Login

The switch supports WEB management and configuration. A computer can access the device via its Ethernet interface by logging into the main interface of the WEB server through a browser.

➢ Configure the IP addresses of the computer and the device so they are on the same network segment, and ensure the network between them is mutually accessible.

➢ Enter the switche's IP address into the browser's address bar. The default IP address is 192.168.16.253.

➢ In the login window, input the device's username and password.

➢ Click the "OK" button to log in to the WEB interface of the switch.

➢ The default username and password are both admin.

5. Product Dimension

❖ Dimension

Top View

122mm

160mm

74mm
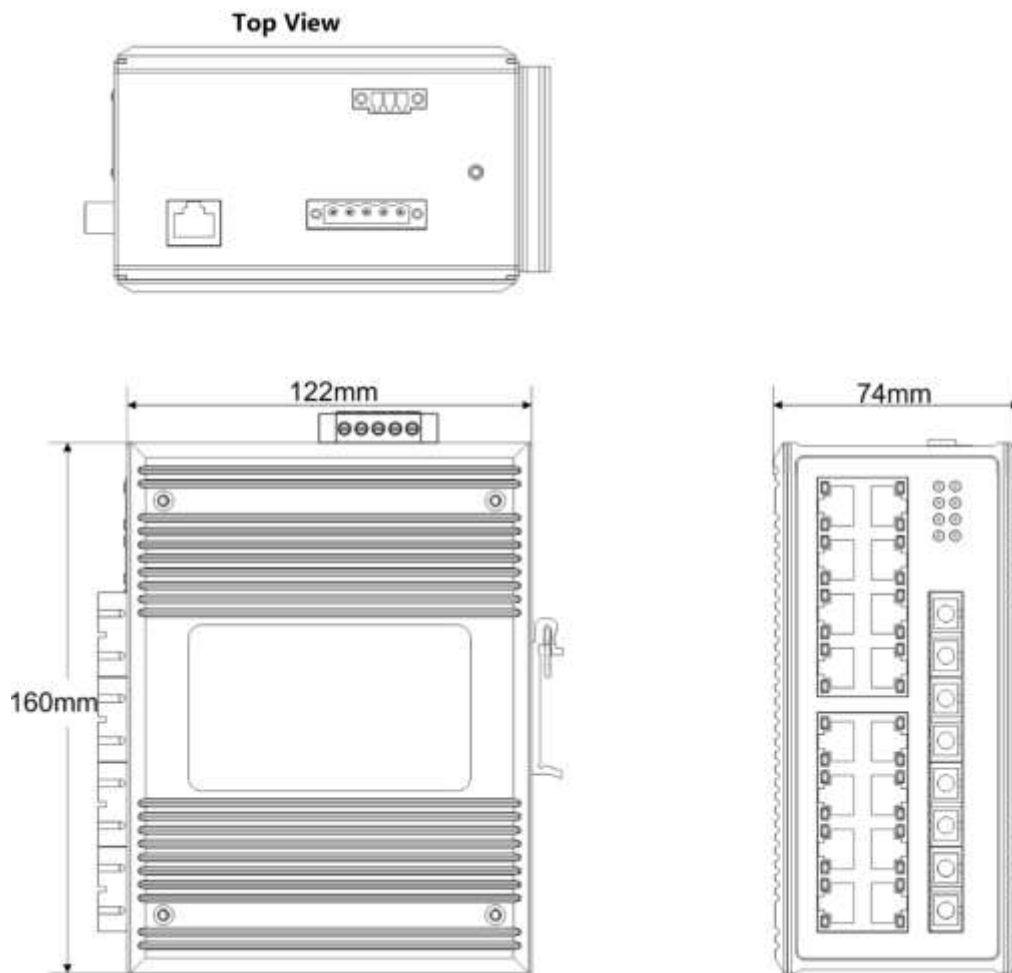
6. Package

❖ Packing

Item	Q'ty	Remark
Ethernet Switch device	1	
AC220V Power Cable	1	For AC type model
User Manual	1	Digital copy

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