

SICOM3016B Industrial Ethernet Switch

Hardware Installation Manual



KYLAND

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SICOM3016B Industrial Ethernet Switch

Hardware Installation Manual

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Notice for Safety Operation

This product performs reliably as long as it is used according to the guidance.

Artificial damage or destruction of the equipment should be avoided.

- Read this manual carefully and keep it for future reference.
- Do not place the equipment near water sources or damp areas.
- Do not place anything on power cable or put the cable in unreachable places.
- Do not tie or wrap the cable, which may cause a fire risk.
- Power connectors and other equipment connectors should be firmly interconnected and checked frequently.
- Do not repair the equipment by yourself, unless it is clearly specified in the manual.
- Please keep the equipment clean; if necessary, wipe the equipment with soft cotton cloth.

In the following cases, please immediately shut down your power supply and contact your Kyland representative:

- Water gets into the equipment.
- Equipment damage or shell damage.
- Equipment operation or performance has abnormally changed.
- The equipment emits odor, smoke or abnormal noise.

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1 Product Overview

Compliant with the IEC61850 standard, SICOM3016B gigabit industrial Ethernet switches are used in rail transit, power, and many other industries.

SICOM3016B supports DT-Ring protocol, MSTP, and web management. The series switches can be managed through CLI, Telnet, Web, and SNMP-based network management software. The DEF button allows one-touch recovery. Besides, SICOM3016B also provides sophisticated security features as well as power failure alarm functions.

SICOM3016B supports both DIN-rail mounting and panel mounting. It provides up to four 1000Base-X, 10/100/1000Base-T(X) Combo ports and sixteen 10/100Base-T(X) ports.

2 Structure and Interface

2.1 Front Panel

- Front Panel of SICOM3016B-4GX/GE-16T

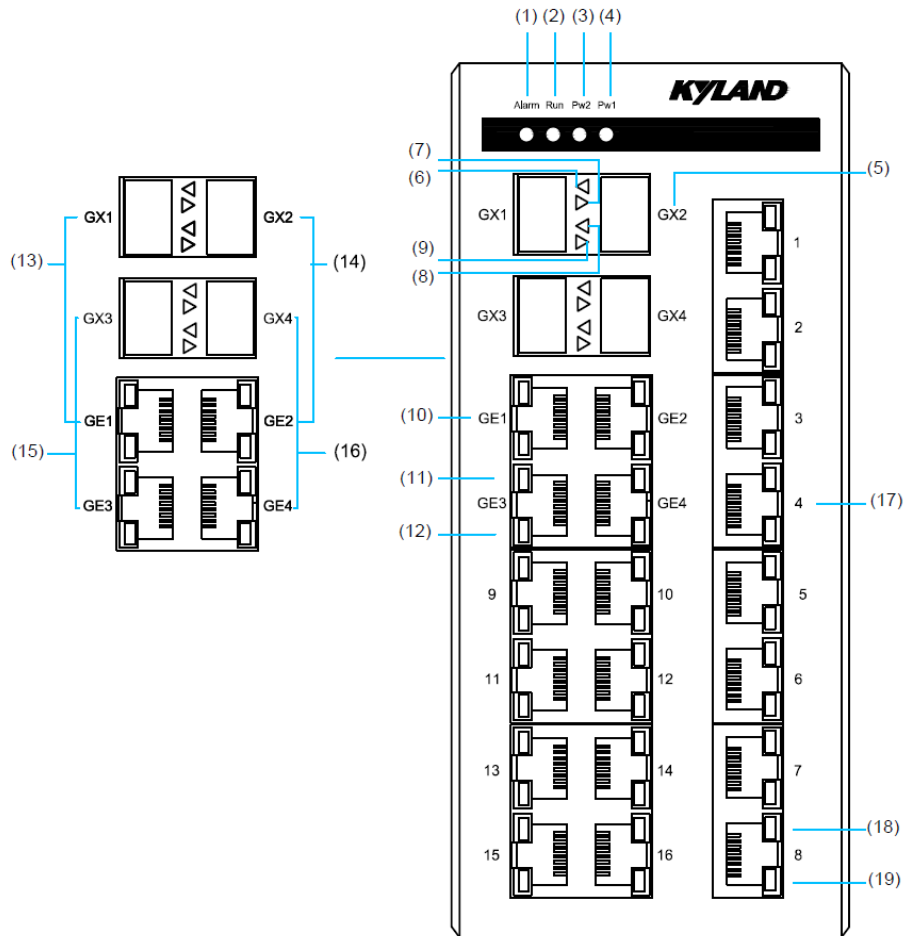


Figure 1 Front Panel of SICOM3016B-4GX/GE-16T

Table 1 Description of the Front Panel of SICOM3016B-4GX/GE-16T

No.	Identifier	Description
(1)	Alarm	Alarm LED
(2)	Run	Running LED
(3)	Pw2	Power 2 LED
(4)	Pw1	Power 1 LED
(5)	GX1-GX4	1000Base-X, 10/100/1000Base-T(X)SFP slots
(6)	--	Speed LED (yellow) of the 1000Base-X, 10/100/1000Base-T(X) SFP slot on the left
(7)	--	Connection status LED (green) of the 1000Base-X, 10/100/1000Base-T(X) SFP slot on the left
(8)	--	Speed LED (yellow) of the 1000Base-X, 10/100/1000Base-T(X)

		SFP slot on the right
(9)	--	Connection status LED (green) of the 1000Base-X, 10/100/1000Base-T(X) SFP slot on the right
(10)	GE1-GE4	10/100/1000Base-T(X) ports
(11)	--	10/100/1000Base-T(X) RJ45 port speed LED (yellow)
(12)	--	10/100/1000Base-T(X) RJ45 port connection status LED (green)
(13)	GX1, GE1	1000Base-X, 10/100/1000Base-T(X) Combo port 1
(14)	GX2, GE2	1000Base-X, 10/100/1000Base-T(X) Combo port 2
(15)	GX3, GE3	1000Base-X, 10/100/1000Base-T(X) Combo port 3
(16)	GX4, GE4	1000Base-X, 10/100/1000Base-T(X) Combo port 4
(17)	1-16	10/100Base-T(X) ports
(18)	--	10/100Base-T(X) RJ45 port speed LED (yellow)
(19)	--	10/100Base-T(X) RJ45 port connection status LED (green)

- Front Panel of SICOM3016B-2GX/GE-2GE-16T

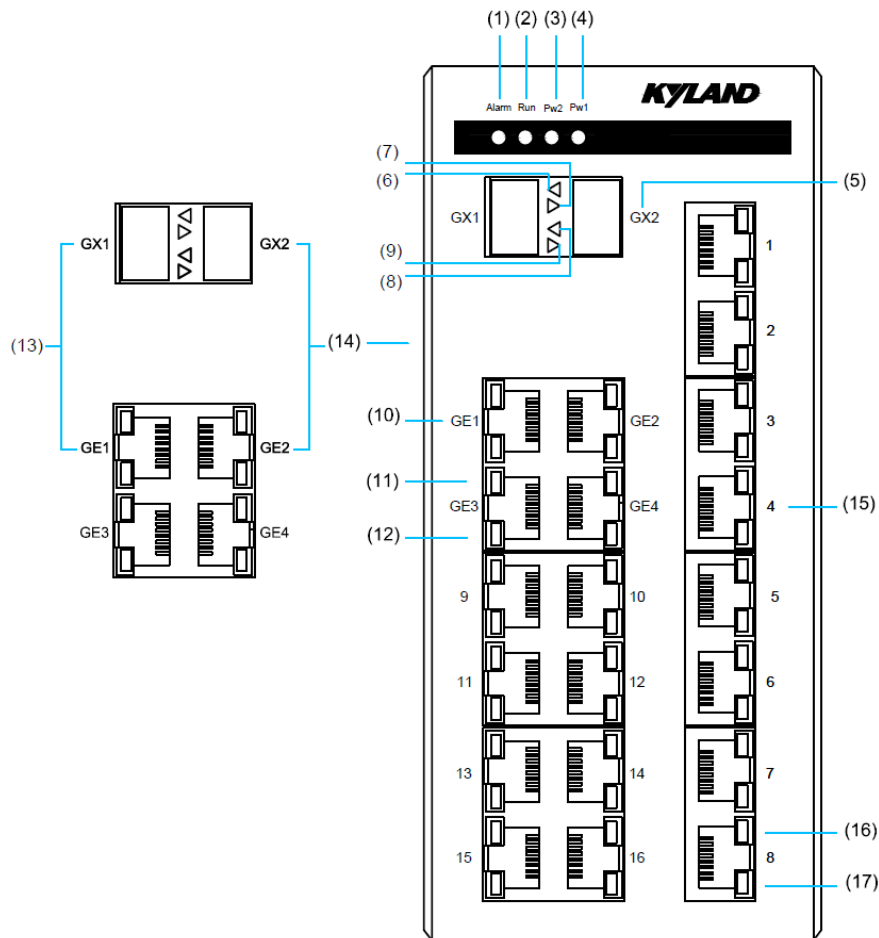


Figure 2 Front Panel of SICOM3016B-4GX/GE-2GE-16T

Table 2 Description of the Front Panel of SICOM3016B-4GX/GE-2GE-16T

No.	Identifier	Description
(1)	Alarm	Alarm LED
(2)	Run	Running LED
(3)	Pw2	Power 2 LED
(4)	Pw1	Power 1 LED
(5)	GX1, GX2	1000Base-X, 10/100/1000Base-T(X)SFP slots
(6)	--	Speed LED (yellow) of the 1000Base-X, 10/100/1000Base-T(X) SFP slot on the left
(7)	--	Connection status LED (green) of the 1000Base-X, 10/100/1000Base-T(X) SFP slot on the left
(8)	--	Speed LED (yellow) of the 1000Base-X, 10/100/1000Base-T(X)

		SFP slot on the right
(9)	--	Connection status LED (green) of the 1000Base-X, 10/100/1000Base-T(X) SFP slot on the right
(10)	GE1-GE4	10/100/1000Base-T(X) ports
(11)	--	10/100/1000Base-T(X) RJ45 port speed LED (yellow)
(12)	--	10/100/1000Base-T(X) RJ45 port connection status LED (green)
(13)	GX1, GE1	1000Base-X, 10/100/1000Base-T(X) Combo port 1
(14)	GX2, GE2	1000Base-X, 10/100/1000Base-T(X) Combo port 2
(15)	1-16	10/100Base-T(X) ports
(16)	--	10/100Base-T(X) RJ45 port speed LED (yellow)
(17)	--	10/100Base-T(X) RJ45 port connection status LED (green)

2.2 Top Panel

- Top Panel of SICOM3016B

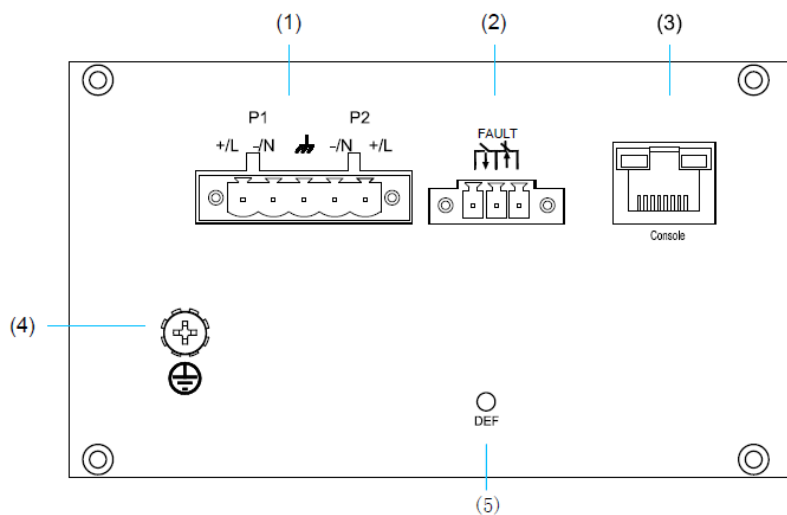





Figure 3 Top Panel of SICOM3016B

Table 3 Description of the Top Panel of SICOM3016B

No.	Identifier	Description
(1)	P1 +/L -/N  P2 -/N +/L	Power terminal block

(2)		Alarm terminal block
(3)	Console	Console port
(4)		Grounding screw
(5)	DEF	DEF button

3 Mounting

3.1 Dimension Drawing

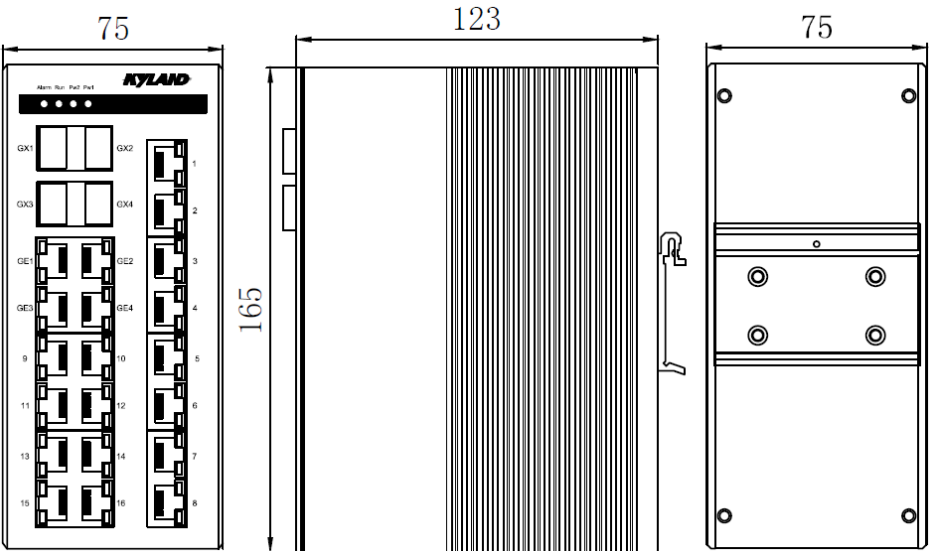


Figure 4 Dimensions for DIN-rail Mounting

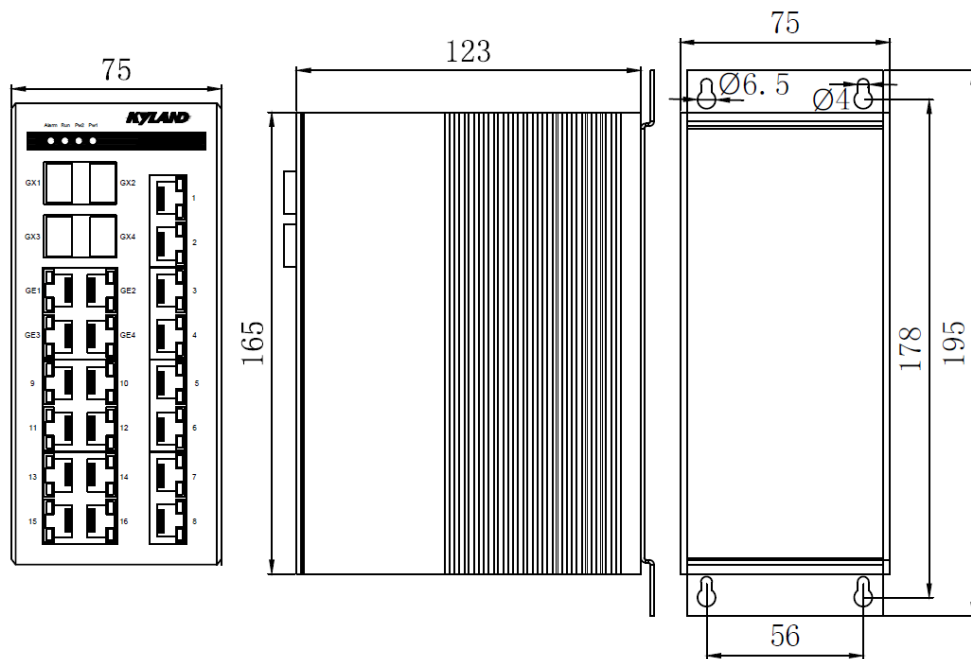


Figure 5 Drawings for Panel Mounting



Caution:

As part of the heat dissipation system, the switch housing becomes hot during operation. Please use caution when coming in contact and avoid covering the switch housing when the switch is running.

3.2 Mounting Modes and Steps

The device supports both DIN-rail mounting and panel mounting.

Before installation, make sure that the following requirements are met.

- 1) Environment: temperature (-40°C to 85°C), ambient relative humidity (5% to 95%, non-condensing)
- 2) Power requirement: The power input is within the voltage range of the switch.
- 3) Grounding resistance: <math><5\Omega</math>
- 4) No direct sunlight, distant from heat source and areas with strong electromagnetic interference.

3.2.1 DIN-Rail Mounting

- Mounting

Step 1: Select the mounting position for SICOM3016B and guarantee adequate space for it.

Step 2: Insert the connecting seat of SICOM3016B into the top of the DIN rail, and push the bottom of the device inward and upward to ensure the DIN rail fits in the connecting seat, as shown on the left of the following figure. Make sure that SICOM3016B is firmly installed on the DIN rail, as shown on the right of the following figure.

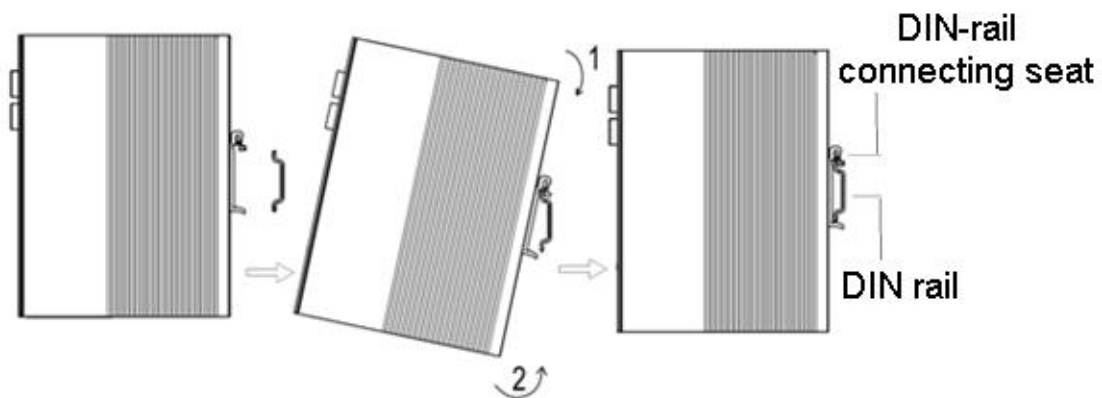


Figure 6 DIN-Rail Mounting

- Dismounting

Step 1: As shown in Figure 7, press the switch downward in the direction of arrow 1 to ensure adequate space at the bottom for detaching.

Step 2: Move the switch in the direction of arrow 2 and the bottom of the switch outward. When the bottom of the switch is detached from the DIN rail, push the switch upward. In this way, you can remove the switch from the DIN rail.

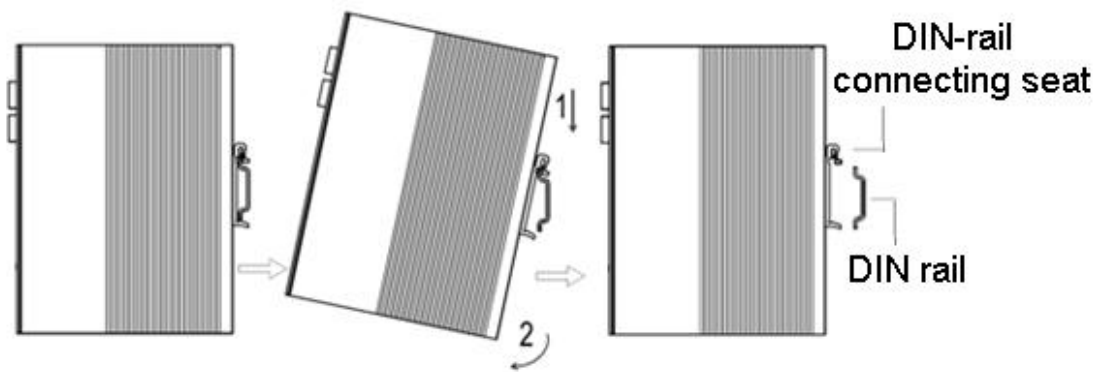


Figure 7 DIN-Rail Dismounting

3.2.2 Panel Mounting

- Mounting

Step 1: Select the mounting position on a wall or an inner wall of a cabinet for SICOM3016B and guarantee adequate space for it.

Step 2: Punch four holes in the selected position according to the dimensions of SICOM3016B. Insert four screws into the four holes respectively, and turn the screws with a screwdriver until about a 5mm distance is left between each screw head and the wall.

Step 3: Align the four mounting holes on the plate for panel mounting with the four screws. Make the screws pass through the $\Phi 6.5$ positions in the following figure. Move SICOM3016B in direction 1 until the four screws are in the $\Phi 4$ positions. Then tighten the screws. In this way, SICOM3016B is firmly mounted to the wall or inner wall of a cabinet.

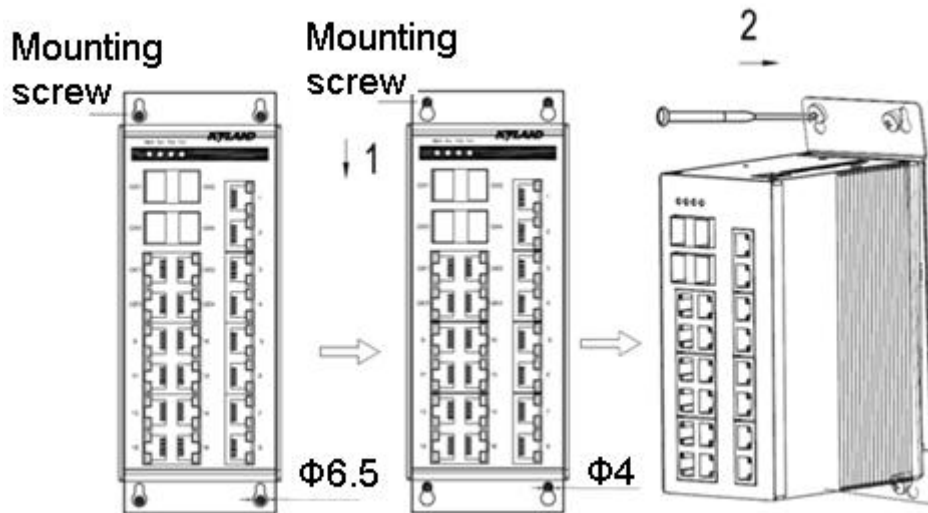


Figure 8 Panel Mounting

- Dismounting

Step 1: Loosen the four screws with a screwdriver. Move the device upward until the four screws are in the $\Phi 6.5$ positions in the following figure. Then remove the plate for panel mounting from the four screws to detach the device from the wall or inner wall of the cabinet.

Step 2: Loosen the screws completely with a screwdriver. Remove them from the wall or inner wall of the cabinet. In so doing, you have completed dismounting the device.

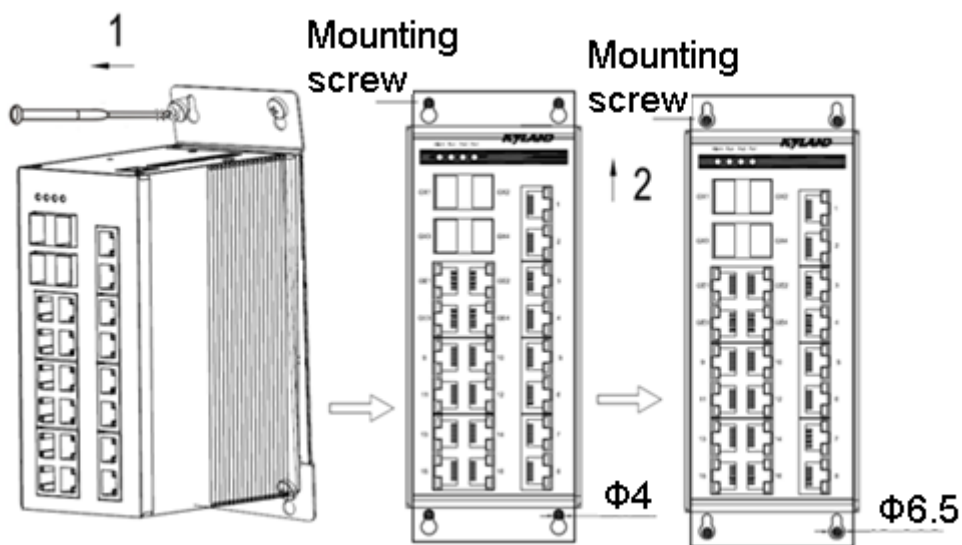


Figure 9 Panel Dismounting

4 Cable Connection

4.1 10/100Base-T(X) Ethernet Port

10/100Base-T(X) Ethernet port is equipped with RJ45 connector. The port is self-adaptive. It can automatically configure itself to work in 10M or 100M state, full or half duplex mode. The port can also adapt to MDI or MDI-X connection automatically. You can connect the port to a terminal or network device with a straight-through or cross-over cable.

- Pin Definition

Figure 10 shows the pin numbers of the RJ45 port.

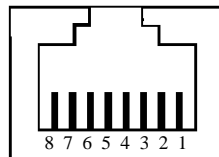



Figure 10 RJ45 Port

Table 4 lists the pin definitions of the 10/100Base-T(X) RJ45 port.

Table 4 Pin Definitions of 10/100Base-T(X) RJ45 Port

Pin	MDI-X Signal	MDI Signal
1	Receive Data+ (RD+)	Transmit Data+ (TD+)
2	Receive Data- (RD-)	Transmit Data- (TD-)
3	Transmit Data+ (TD+)	Receive Data+ (RD+)
6	Transmit Data- (TD-)	Receive Data- (RD-)
4, 5, 7, 8	Unused	Unused
 Note: "+" and "-" indicate level polarities.		

- Wiring Sequence

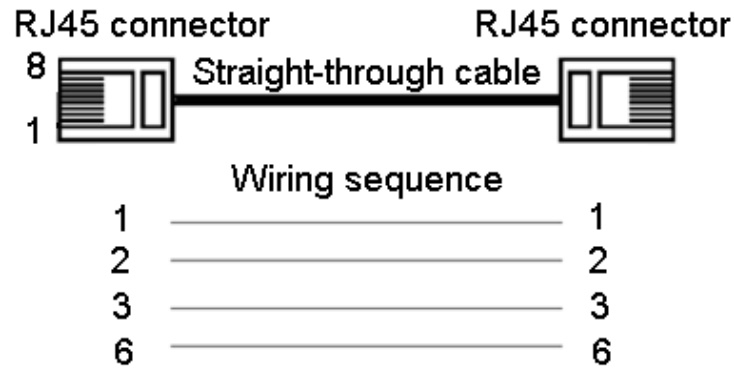


Figure 11 Connection Using Straight-through Cable

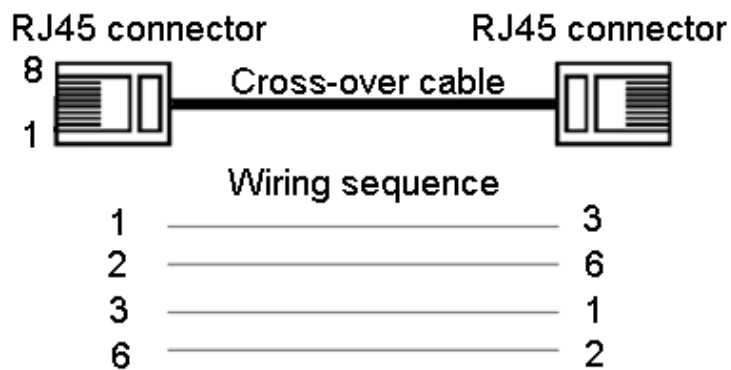


Figure 12 Connection Using Cross-over Cable



Note:

The color of the cable for RJ45 connector meets the 568B standard: 1-orange and white, 2-orange, 3-green and white, 4-blue, 5-blue and white, 6-green, 7-brown and white, and 8-brown.

4.2 10/100/1000Base-T(X) Port

10/100/1000Base-T(X) port is equipped with RJ45 connector. The port is self-adaptive. It can automatically configure itself to work in 10M/100M/1000M state, full or half duplex mode. The port can also adapt to MDI or MDI-X connection automatically. You can connect the port to a terminal or network device with a straight-through or cross-over cable.

- Pin Definition

Figure 13 shows the pin numbers of the RJ45 port.

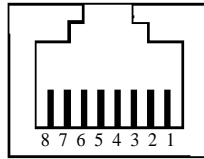



Figure 13 RJ45 Port

Table 5 lists the pin definitions of the 10/100/1000Base-T(X) RJ45 port.

Table 5 Pin Definitions of 10/100/1000Base-T(X) RJ45 Port

Pin	MDI Signal	MDI-X Signal
1	Transmit/Receive Data (TRD0+)	Transmit/Receive Data (TRD1+)
2	Transmit/Receive Data (TRD0-)	Transmit/Receive Data (TRD1-)
3	Transmit/Receive Data (TRD1+)	Transmit/Receive Data (TRD0+)
4	Transmit/Receive Data (TRD2+)	Transmit/Receive Data (TRD3+)
5	Transmit/Receive Data (TRD2-)	Transmit/Receive Data (TRD3-)
6	Transmit/Receive Data (TRD1-)	Transmit/Receive Data (TRD0-)
7	Transmit/Receive Data (TRD3+)	Transmit/Receive Data (TRD2+)
8	Transmit/Receive Data (TRD3-)	Transmit/Receive Data (TRD2-)

 **Note:**
"+" and "-" indicate level polarities.

● Wiring Sequence

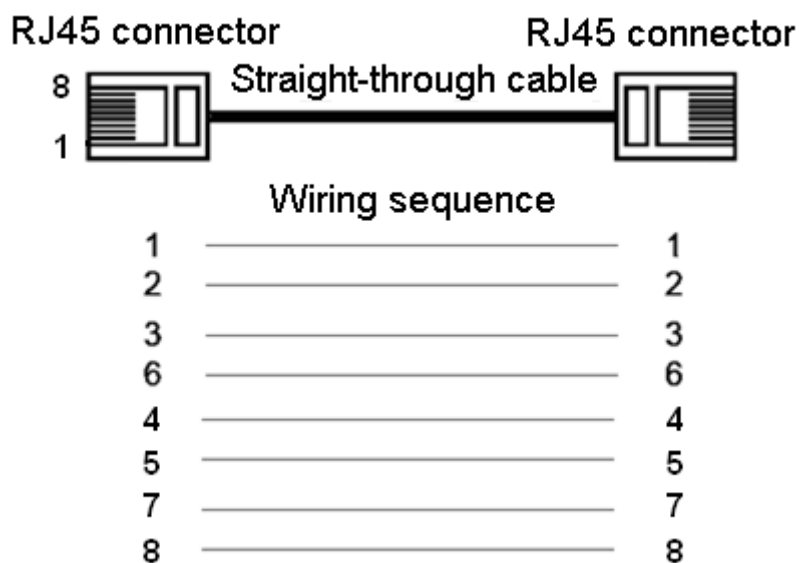


Figure 14 Connection Using Straight-through Cable

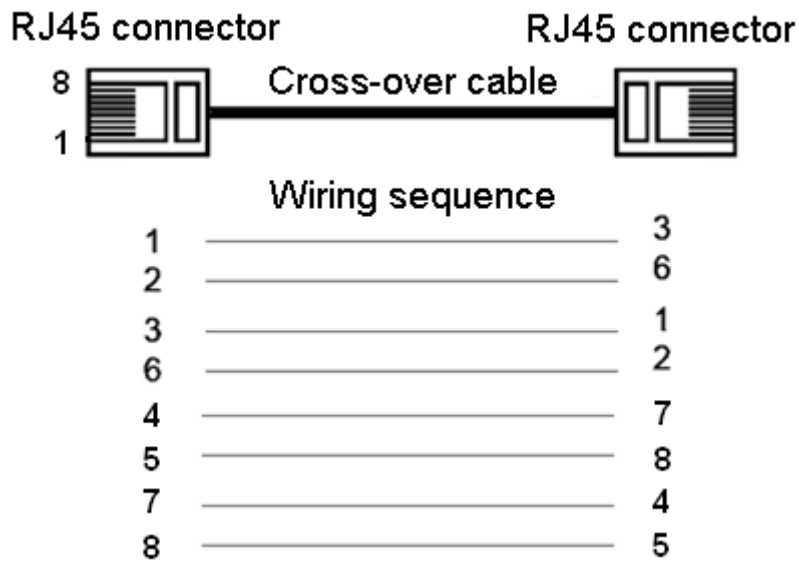


Figure 15 Connection Using Cross-over Cable



Note:

The color of the cable for RJ45 connector meets the 568B standard: 1-orange and white, 2-orange, 3-green and white, 4-blue, 5-blue and white, 6-green, 7-brown and white, and 8-brown.

4.3 1000Base-X, 10/100/1000Base-T(X) SFP Slot

1000Base-X, 10/100/1000Base-T(X) SFP slot is gigabit SFP slot. You can enable data transmission only after inserting an SFP optical/electrical module into the slot and connecting cable properly. You can purchase SFP modules as needed, as shown in Table 12.

4.3.1 Gigabit SFP Optical Module

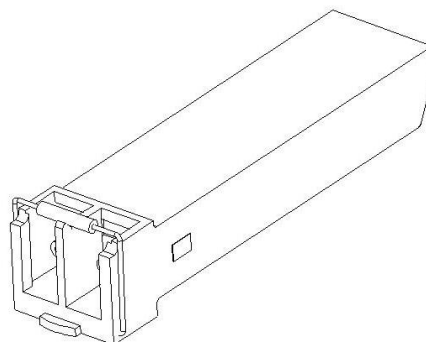


Figure 16 Gigabit SFP Optical Module

Gigabit SFP optical module is equipped with LC connector, and each port consists of a TX (transmit) port and an RX (receive) port, as shown in Figure 17.

To enable communication between Device A and Device B, connect the TX (transmit) port of Device A to the RX (receive) port of Device B, and the RX (receive) port of Device A to the TX (transmit) port of Device B, as shown in Figure 17.

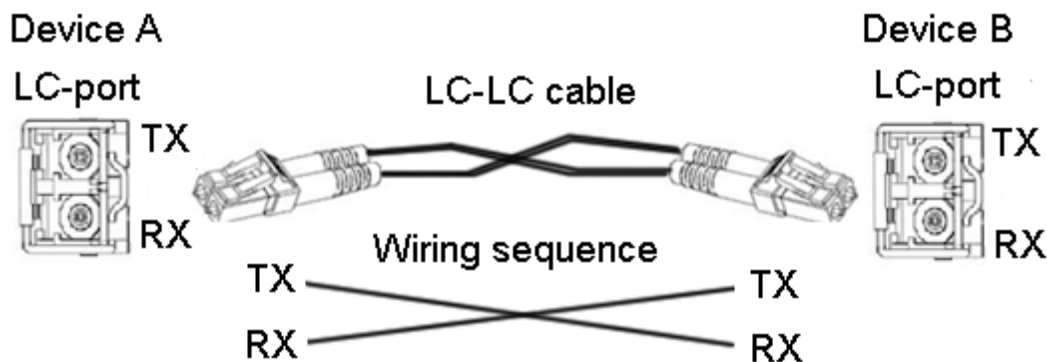


Figure 17 Cable Connection of Gigabit SFP Optical Module

- How to Connect the 1000M SFP Optical Module

Insert the SFP module into the SFP slot in the switch, and then plug the optical fiber into the TX port and RX port of the SFP module, as shown in Figure 18.

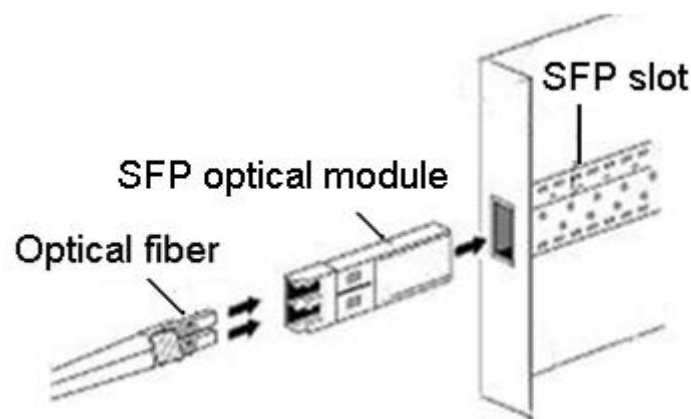


Figure 18 Connecting the Gigabit SFP Optical Module

How to Determine the RX Port and TX Port of Gigabit SFP Optical Module

1. Insert the two connectors in one end of optical fiber into the gigabit SFP module, and those in the other end of the optical fiber into the SFP module

of another switch.

2. View the corresponding port connection status LED (green) in the front panel:

If the LED blinks, the link is connected.

If the LED is off, the link is not connected. This may be caused by incorrect connection of the TX and RX ports. In this case, swap the two connectors in the one end of the optical fiber.

4.3.2 Gigabit SFP Electrical Module

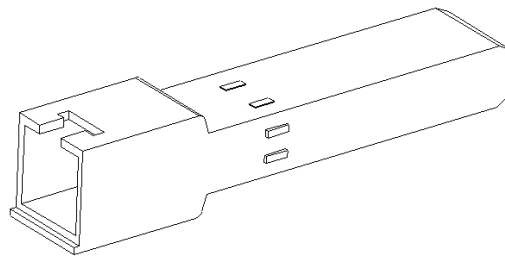


Figure 19 Gigabit SFP Electrical Module

- How to Connect the Gigabit SFP Electrical Module

While wiring, first insert the SFP module into the SFP slot in the switch, and then plug the RJ45 connector of the twisted pair into the SFP module, as shown in Figure 20.

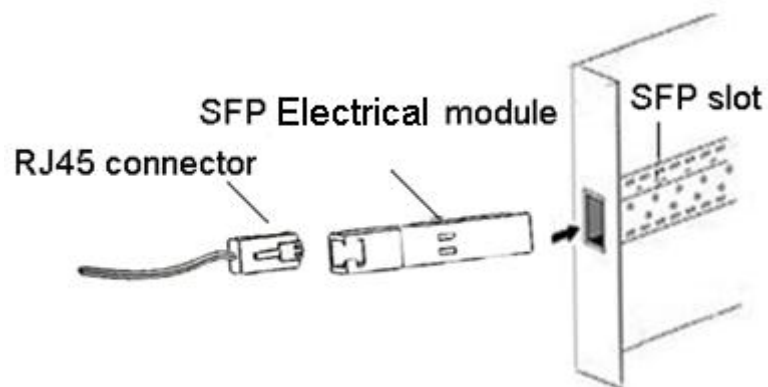


Figure 20 Connecting the Gigabit SFP Electrical Module


4.4 1000Base-X, 10/100/1000Base-T(X) Combo Port

1000Base-X, 10/100/1000Base-T(X) Combo port (Combo port for short)

consists of one gigabit SFP slot and one 10/100/1000Base-T(X) port. Combo port and 10/100/1000Base-T(X) port cannot work at the same time. The gigabit SFP slot takes preference to 10/100/1000Base-T(X) port, that is, if both the gigabit SFP slot and 10/100/1000Base-T(X) port are connected at the same time, gigabit SFP slot works while 10/100/1000Base-T(X) port stops working automatically. For details about the gigabit SFP slot, see section 4.3; for details about the 10/100/1000Base-T(X) port, see section 4.2.

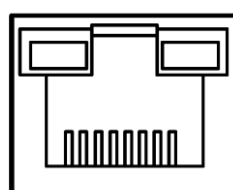
The following table lists the gigabit SFP slot and 10/100/1000Base-T(X) port of the Combo port.

Table 6 GX and GE of the Combo Port

		
Combo Port	Gigabit SFP Slot	10/100/1000Base-T(X) Port
Combo port 1	GX1	GE1
Combo port 2	GX2	GE2
Combo port 3	GX3	GE3
Combo port 4	GX4	GE4

4.5 Console Port

Figure 21 shows the console port of the switch. Connect the 9-pin serial port of a PC to the console port of the switch with an RJ45-DB9 console cable. You can configure, maintain, and manage the switch by running the Hyper Terminal in the Windows OS of the PC.



Console

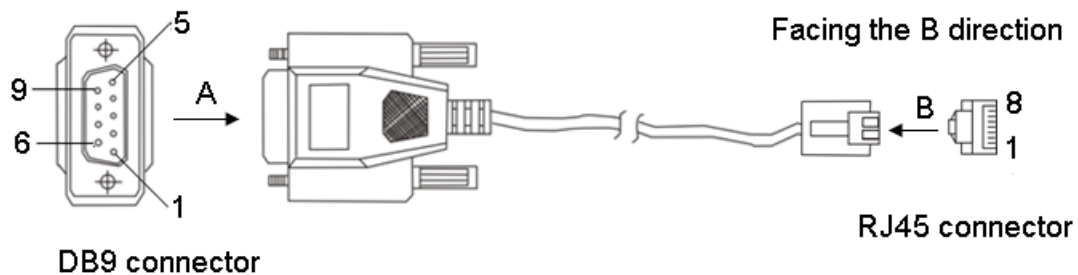
Figure 21 Console Port

- RJ45-DB9 Console Cable

Figure 22 shows the RJ45-DB9 console cable. One end of the cable is crimped RJ45 connector to be inserted into the console port of the switch, and the other end is the DB9 connector to be inserted into the 9-pin serial port of a PC.

Figure 22 shows the wiring sequence of the RJ45-DB9 console cable. Table 7 lists the pin definitions of the cable.

Facing the A direction



Wiring sequence

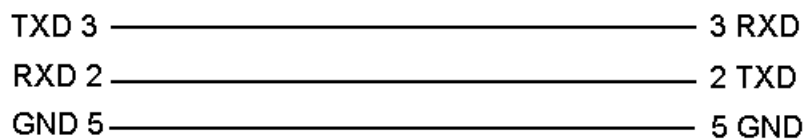


Figure 22 Wiring Sequence of DB9-RJ45 Console Cable

Table 7 Pin Definitions of DB9-RJ45 Console Cable

DB9 Pin	RJ45 Pin	Signal	Description
2	3	RXD	Receive Data
3	2	TXD	Transmit Data
5	5	GND	Grounding

4.6 Grounding

Grounding protects the device from lightning and interference. Therefore, you must ground the device properly.

Figure 23 shows the grounding screw of the switch. It is used for chassis grounding. After crimping one end of the grounding cable to a cold pressed terminal, secure the end to the grounding screw and connect the other end to the earth firmly.

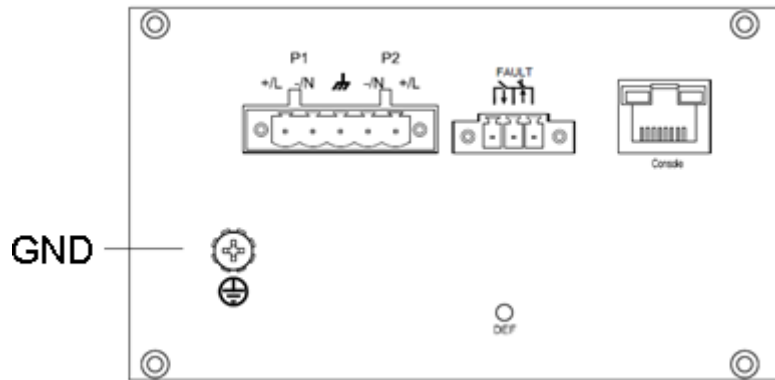


Figure 23 GND



Note:

Cross-sectional area of the chassis grounding cable: $>2.5\text{mm}^2$

Grounding resistance: $<5\Omega$

4.7 Power Terminal Block

SICOM3016B provides the power terminal block on the top panel. You need to connect the power cable to the terminal block to provide power for the device. The device supports both single and redundant power supply with 5-pin 5.08mm-spacing plug-in terminal block. When the redundant power supply is used and one power input is faulty, the switch can continue operating properly with the other power input, thereby improving network reliability.



Note:

$0.75\text{mm}^2 < \text{Cross-sectional area of the power cable} < 2.5\text{mm}^2$;

Grounding resistance $< 5\Omega$.

- 5-Pin 5.08mm-Spacing Plug-in Terminal Block

Figure 24 shows the 5-pin 5.08mm-spacing plug-in terminal block.

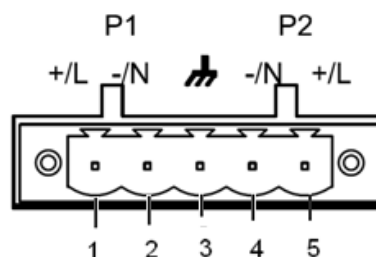


Figure 24 5-Pin 5.08mm-Spacing Plug-in Terminal Block (socket)

Table 8 lists the pin definitions of the 5-pin 5.08mm-spacing plug-in terminal block.

Table 8 Pin Definitions of 5-Pin 5.08mm-Spacing Plug-in Terminal Block

No.	DC Definition	AC Definition
1	P1: +	P1: L
2	P1: -	P1: N
3	PGND	PGND
4	P2: -	P2: N
5	P2: +	P2: L



Caution:

When single power supply is used, only pins 1, 2, and 3 of the 5-pin 5.08mm-spacing plug-in terminal block can be connected. Do not use pins 4 and 5.

● **Wiring and Mounting**

Step 1: Ground the device properly according to section [错误!未找到引用源。](#)

Step 2: Remove the power terminal block from the device.

Step 3: Insert the power cable into the power terminal block according to Table 8 to fix the power cable.

Step 4: Insert the terminal with the connected cable into the terminal block on the device.

Step 5: Connect one end of the power cable to an external power supply system (with the allowed power range). If the power LED on the front panel of the switch turns on, the power supply is connected properly.

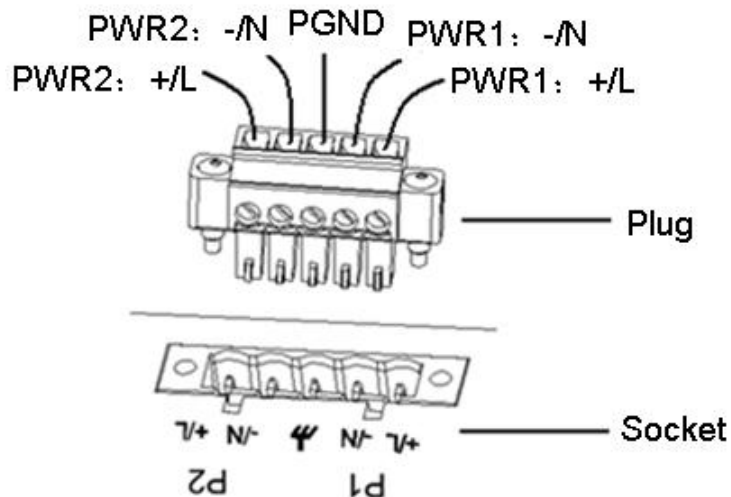


Figure 25 Cable Connection of 5-Pin 5.08mm-Spacing Plug-in Terminal Block



Caution:

The device supports 24DC, 48DC, and 220AC/DC power input. Before connecting the device to power supply, make sure that the power input meets the power requirement. If connected to an incorrect power input, the device may be damaged.



Warning:

Do not touch any exposed conducting wire, terminal, or component with a voltage warning sign, because it may cause damage to humans.

4.8 Alarm Terminal Block

The device provides the alarm terminal block on the top panel for alarm output. When the switch works properly, the normally-open contacts of the alarm relay are closed and the normally-closed contacts are open; when an alarm occurs, the normally-open contacts are open and the normally-closed contacts are closed. The alarm is outputted through a 3-pin 3.81mm spacing plug-in terminal block.

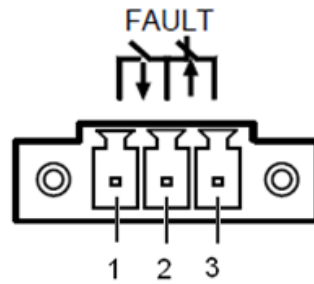


Figure 26 Alarm Terminal Block (socket)

Electrical parameters of the relay:

Max Switch Voltage: 250VAC/220VDC

Max Switch Current: 2A

Max Switch Power: 60W



Note:

Pin 1 and pin 2 are normally-open contacts; pin 2 and pin 3 are normally-closed contacts. When the switch works properly, pin 1 and pin 2 are closed, pin 2 and pin 3 are open; when an alarm occurs, pin 1 and pin 2 are open; pin 2 and pin 3 are closed.

● **Wiring and Mounting**

Step 1: Remove the alarm terminal block from the switch.

Step 2: Secure the three cables for alarm into the alarm terminal block in the required sequence.

Step 3: Insert the alarm terminal block into its socket.

5 DEF Button

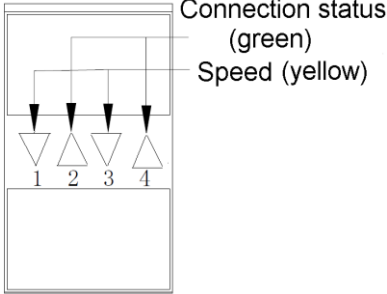
SICOM3016B provides a DEF button on the top panel. The button can be used to restore factory default settings.

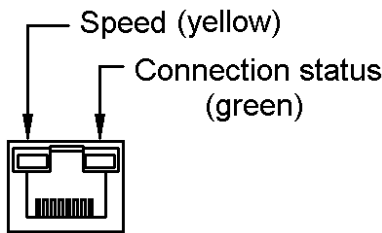
You can restore factory default settings (excluding the IP address) and restart the device by pressing and holding the button for 20 seconds. The default IP address is 192.168.0.2.

6 LEDs

Table 9 lists the descriptions of the front panel LEDs.

Table 9 Front Panel LEDs

LED	State	Description	
Running LED	Blinking (1Hz)	The CPU operates properly.	
	Off	The CPU does not start up or the device is starting up.	
Alarm LED	On	An alarm occurs.	
	Off	No alarm occurs.	
Power 1 LED	On	Power 1 is connected and operates properly.	
	Off	Power 1 is not connected or operates abnormally.	
Power 2 LED	On	Power 2 is connected and operates properly.	
	Off	Power 2 is not connected or operates abnormally.	
 <p>Connection status (green) Speed (yellow)</p>			
1000Base-X, 10/100/1000Base-T(X) SFP slot speed LED (yellow)	Gigabit SFP optical module	On	1000M working state (1000Base-X)
		Off	No connection
	Gigabit SFP electrical	On	1000M working state (1000Base-TX)
		Off	10/100M working state (10/100Base-T(X))

	module	or no connection
1000Base-X, 10/100/1000Base-T(X) SFP slot connection status LED (green)	On	Effective port connection
	Blinking	Ongoing network activities
	Off	No effective port connection
		
10/100/1000Base-T(X) port speed LED (yellow)	On	1000M working state (1000Base-TX)
	Off	10/100M working state (10/100Base-T(X)) or no connection
10/100/1000Base-T(X) port connection status LED (green)	On	Effective port connection
	Blinking	Ongoing network activities
	Off	No effective port connection
10/100Base-T(X) Ethernet port speed LED (yellow)	On	100M working state (100Base-TX)
	Off	10M working state (10Base-T) or no connection
10/100Base-T(X) Ethernet port connection status LED (green)	On	Effective port connection
	Blinking	Ongoing network activities
	Off	No effective port connection

7 Switch Access

You can access the switch in any of the following ways:

7.1 Access through Console Port

Step 1: Connect the 9-pin serial port of a PC to the console port of the switch

with the delivered RJ45-DB9 console cable.

Step 2: Open the Hyper Terminal in the Windows OS. On the desktop, click Start → All Programs → Accessories → Communications → Hyper Terminal.

Step 3: Create a connection "Switch", as shown in Figure 27.

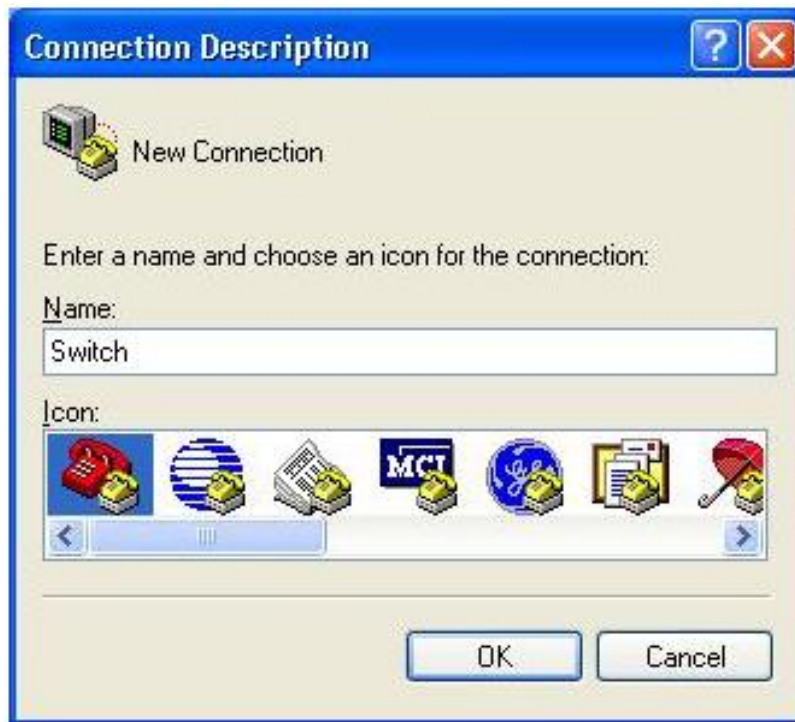


Figure 27 Creating a Connection

Step 4: Connect the communication port in use, as shown in Figure 28.



Figure 28 Selecting the Serial Port in Use



Note:

Right-click [My Computer] and select [Property]. Click [Hardware] → [Device Manager] → [Port] to view the communication port.

Step 5: Set port parameters (Bits per second: 9600, Data bits: 8, Parity: None, Stop bits: 1, and Flow control: None), as shown in Figure 29.

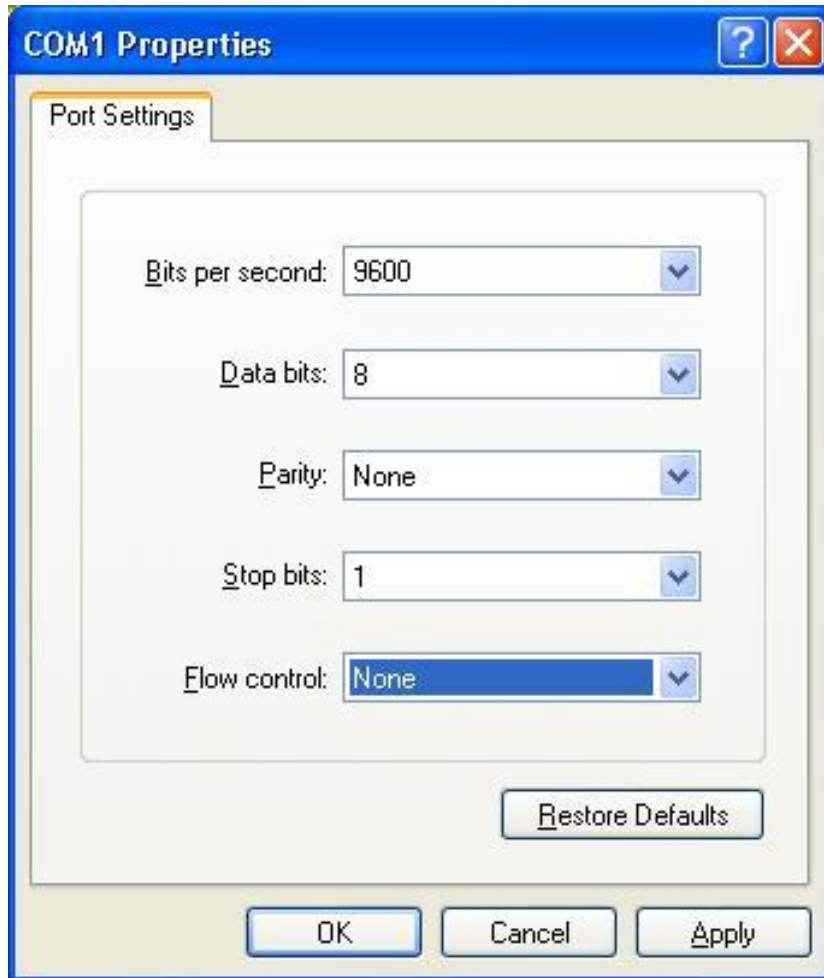


Figure 29 Port Settings

Step 6: Click OK to enter the switch CLI. Then you can run the following commands to perform operations.

Table 10 CLI Commands

View	Command	Description
User view	SWITCH>enable	Enter the management view.
Management view	SWITCH#show interface	Query the IP address of the switch.
Management view	SWITCH#show version	Query the version of the switch.
Management view	SWITCH#reboot	Restart the switch.
Management view	SWITCH#load default	Restore the factory default settings (excluding the IP

		address).
Management view	SWITCH#config terminal	Enter the configuration view.

7.2 Access through Telnet

Step 1: Connect the network port of the PC to the RJ45 port of the switch with an RJ45-RJ45 cable.

Step 2: Enter "telnet *IP address*" in the Run dialog box, as shown in Figure 30. The default IP address of a Kyland switch is 192.168.0.2.

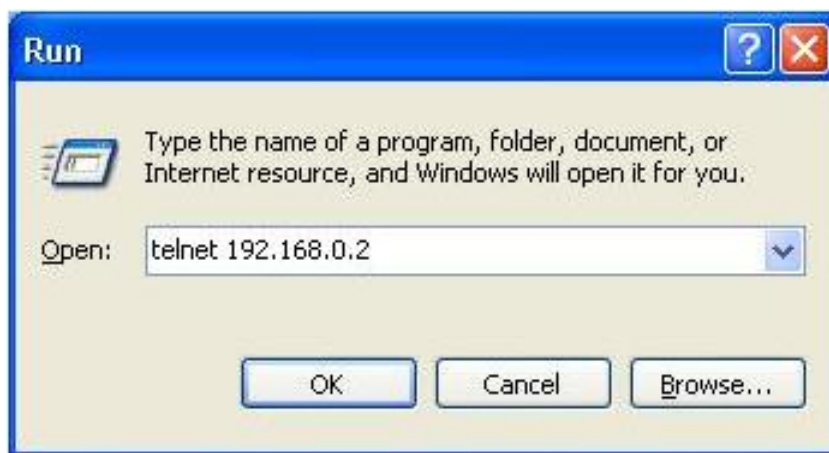


Figure 30 Access through Telnet

Step 3: Click OK. The Telnet CLI is displayed. Then you can enter commands (as shown in Table 10) to perform operations.

7.3 Access through Web

Step 1: Connect the network port of the PC to the RJ45 port of the switch with an RJ45-RJ45 cable.

Step 2: Enter the IP address of the switch in the address box of the browser. The default IP address of a Kyland switch is 192.168.0.2. The user login interface is displayed, as shown in Figure 31. You can log in to the Web UI of the switch by user name "admin" and password "123".

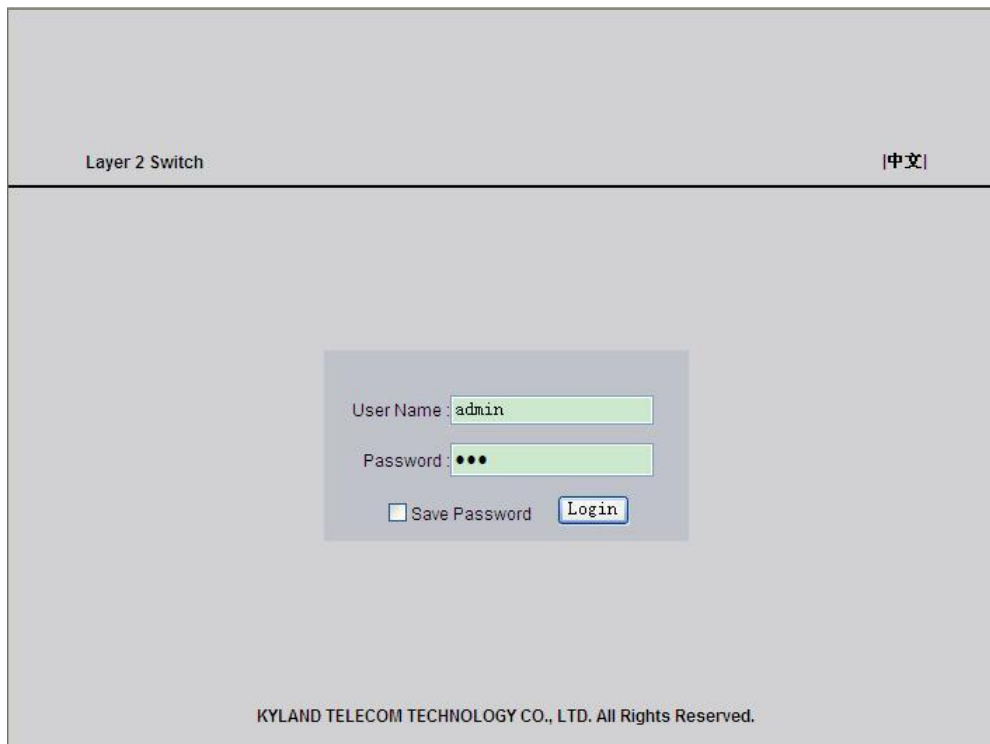


Figure 31 Login Dialog Box



Note:

IE8.0 or a later version is recommended.

8 Product Configuration Information

Table 11 SICOM3016B Configuration

Model	Description	Power
SICOM3016B-4GX/GE-16T	Four Combo ports, sixteen 10/100Base-T(X) Ethernet ports (RJ45 connector)	24DC, 48DC, 220AC/DC single
SICOM3016B-2GX/GE-2GE-16T	Two Combo ports, two 10/100/1000Base-T(X) ports (RJ45 connector), sixteen 10/100Base-T(X) Ethernet ports (RJ45 connector)	power supply and redundant power supply

Table 12 SICOM3016B Optional Accessories

Model	Description
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DT-BGAZ-05	Panel mounting plate
DT-FCZ-RJ45-01	RJ45 dustproof shield
SFP Module	
IGSFP-10/100/1000BASE-T-RJ45	10/100/1000Base-T(X) port, RJ45 connector
IGSFP-M-SX-LC-850-0.55	1000Base-X port; multi mode, LC connector; 850nm center wavelength (CWL), 0.55km transmission distance
IGSFP-S-LX-LC-1310-10	1000Base-X port; single mode, LC connector; 1310nm center wavelength (CWL), 10km transmission distance
IGSFP-S-LH-LC-1310-40	1000Base-X port; single mode, LC connector; 1310nm center wavelength (CWL), 40km transmission distance
IGSFP-S-ZX-LC-1550-80	1000Base-X port; single mode, LC connector; 1550nm center wavelength (CWL), 80km transmission distance
IG-FSFP-M-LX-LC-1310-2	100Base-FX port; multi mode, LC connector; 1310nm center wavelength (CWL), 2km transmission distance
IG-FSFP-S-LX-LC-1310-10	100Base-FX port; single mode, LC connector; 1310nm center wavelength (CWL), 10km transmission distance

9 Basic Features and Specifications

Power Requirements

Rated voltage range	24DC: 24VDC 48DC: 48VDC 220AC/DC: 100~240VAC, 50/60Hz; 220VDC
Maximum voltage range	24DC: 18~36VDC 48DC: 36~72VDC 220AC/DC: 85~264VAC/120~300VDC
Terminal block	5-pin 5.08mm-spacing plug-in terminal block

Rated Power Consumption

Rated Power Consumption	15W
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Physical Characteristics

Housing	Aluminum, fanless
Installation	DIN-rail mounting or panel mounting
Dimensions (W×H×D)	75mm×165mm×123mm (excluding the connector, DIN rail, and component for panel mounting)
Weight	Max 1.2Kg

Environmental Limits

Operating temperature	-40°C~+85°C
Storage temperature	-40°C~+85°C
Ambient relative humidity	5%~95% (non-condensing)

MTBF

MTBF	334,038 hours
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Warranty

Warranty	5 years
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For more information about KYLAND products, please visit our website:

<http://www.kyland.com>