ATO

Industrial Ethernet Switch

User manual

MISCOM6216

MISCOM6218-2F

MISCOM6220-4F

V2.2

1 **Packing list**

The package of this switch contains the following items. If any item is found to be missing or damaged, please contact the agent or the customerservice center of ATO for assistant.
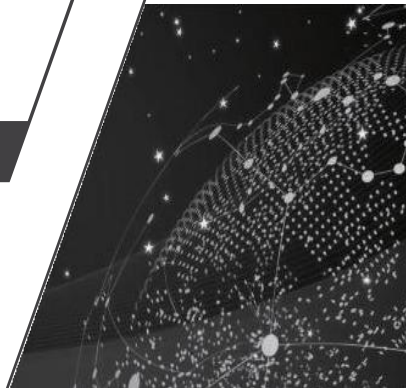
| Items	Quantity	Remarks
Industrial Ethernet Switch	1PC	
Power cord	1PC	AD220 model only
User Manual	1PC	

2 **Product description**

These series switches are managed din-rail industrial Ethernet switch. MISCOM6216 offers 16 ports (16x100M copper ports); MISCOM6218-2F offers 18 ports (16x100M copper port and 2x100M fiber port); MISCOM6220-4F offers 20 ports (16x100M copper and 4x100M fiber port).
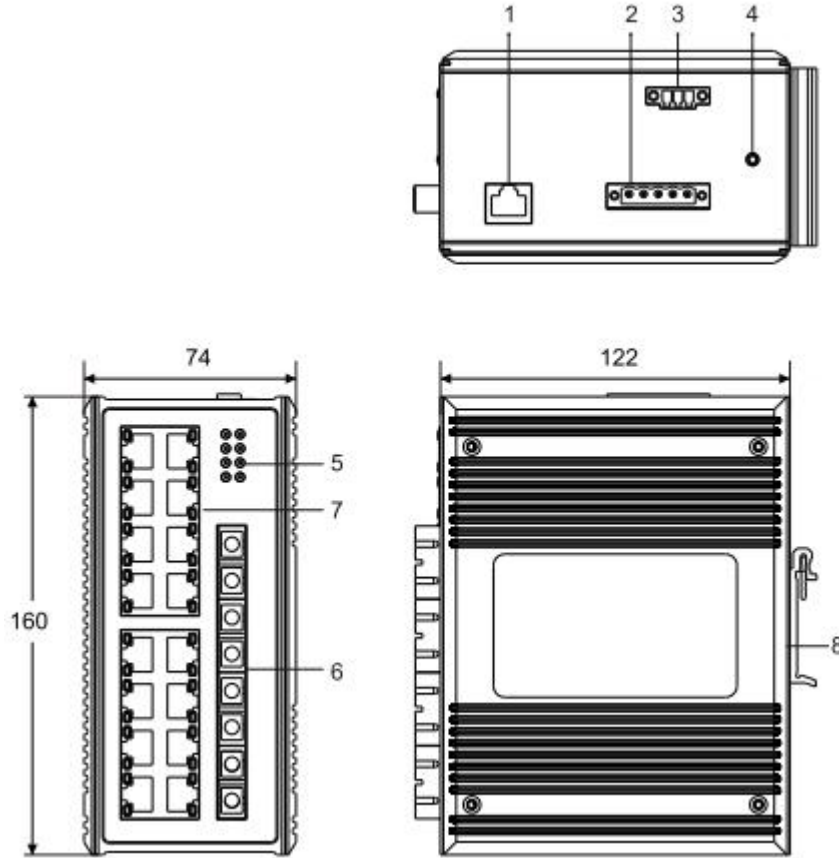

MISCOM6216   MISCOM6218-2F   MISCOM6220-4F

3 Interface
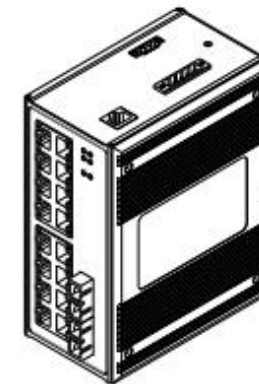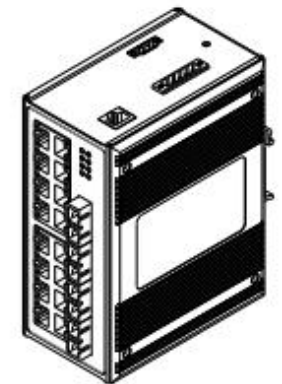
Take MISCOM6220-4Fas an example.

Unit:mm

|	
1.CONSOLE port	5.LED indication lights
2.Power input terminal	6. 100Base-FX port
3.Relay output terminal	7.10/100Base-TX port
4.Ground screw	8. DIN-Rail kit

[Connect to the power]

The DC power supply model of this switch supports dual power input, and the two power supplies are mutually backup; the AC power supply model supports dual power supplies. Using 5-position locking terminals with 5.08mm spacing, the wiring definitions are as follows:
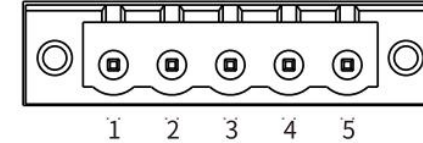
Number	Pin definition
1	Power 1 Input V1+(AC-L)/Positive(DC)
2	Power 1 Input V1-(AC-N)/Negative (DC)
3	Grounded
4	Power 2 supply V2+ positive (DC)
5	Power 2 supply V2+ positive (DC)

[Connect to the relay]

The wiring terminal adopts 3-position 3.81mm pitch terminal with one normally open and one normally closed relay. The one in the middle is the common terminal, and the two terminals on the left are the normally open relay, the two on the right are normally closed relays. When the switch is working, the left two on and the right two off. When the system is powered off, the left two off and the right two on. The recommended load capacity of the relay is 1A (24VDC).
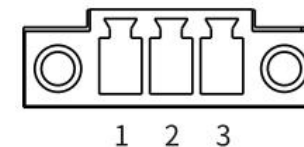
Number	Pin definition
1	Alarm relay output normally open
2	Alarm relay output common terminal
3	Alarm relay output normally closed

[Connect to the CONSOLE]

The network management port is an RJ45 interface. Please use the serial port extension cable provided by our company to connect to the PC's serial port. The interface communication standard is 3-wire RS-232.
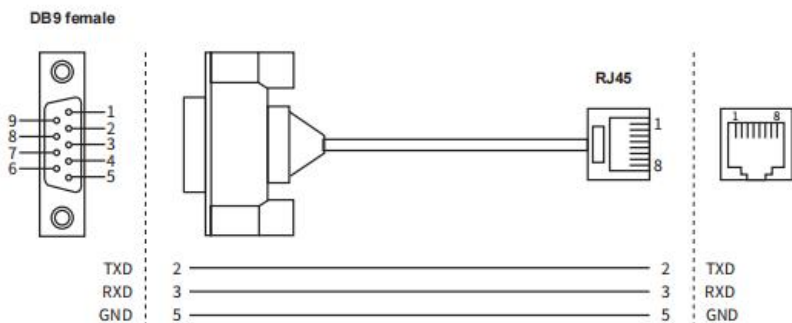
[LED indication lights]

The switch indicator lights description is shown in the table below:

Indicator lights	Status	definition
System Status LED		
P1	On	The power 1 is connected and operating normally
	Off	The power 1 is not connected or the system is not operating normally
P2	On	The power 2 is connected and operating normally (AC power No P2)
	Off	The power 2 is not connected or the system is not operating normally(AC power No P2)
ALM	On	Relay alarm
	Off	No Relay alarm
RUN	Flashing	The system is operating normally
	On/off	The system is not working properly
Fiber Port Status LED		
17-20	On	The port has established a valid network connection
	Flashing	There is network activity on the port
	Off	No valid network connection is established on the port
RJ45 Port Status LED		
Link/Act	On	The port has established a valid network connection
	Flashing	There is network activity on the port
	Off	No valid network connection is established on the port
SPEED (1-16)	On	100M working state (namely 100Base-TX)
	Off	10M working status (namely 10Base-T)

4 ▶ Hardware Installation

ⓘ Installation Precautions

To prevent equipment damage or personal injury caused by improper use, observe the following precautions:

➢ During the installation process, you need to wear anti-static gloves or anti-static gloves, and power-off the switch.

➢ Please make sure that the input voltage is within the input voltage range

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marked on the switch.

➢ The transmission distance has a certain relationship with the connected wire. It is recommended to use a standard Cat5e/6 network cable.

➢ The equipment must be grounded for lightning protection, otherwise the protection level of the equipment will be greatly reduced; please use a wire of No. 20 or more to connect the grounding terminal to the ground.

➢ The power line, ground line and signal line are laid out separately and the distance is not less than 5cm.
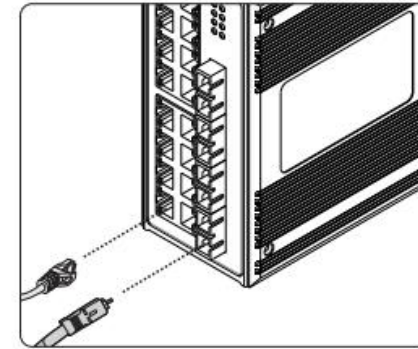
[Device installation]

➢ Tilt the switch upwards so that the upper end of the buckle is fastened to the upper end of the DIN rail.

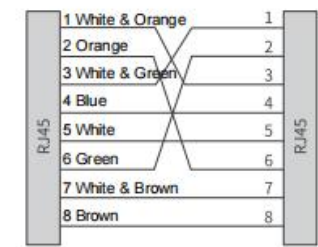➢ The lower end of the back buckle is buckled into the DIN rail.
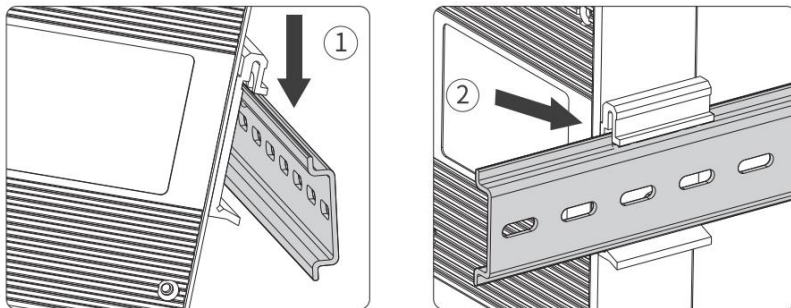
[Device connection]

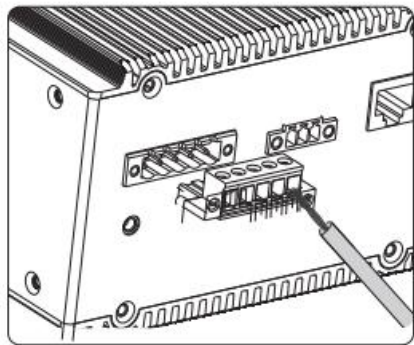Connect the network cable to the port in the correct direction.
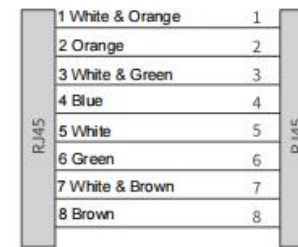
Catagory5 direction connect cable

Catagory5 crossover connection

[Power input]

Before connecting the power cord, make sure that the ground is connected. Do connect the power cord to the power terminal of the device according to the definition.

1. When using a switch, the voltage can only be input from V1+ and V1-, V1+ connects to live wire L, and V1- to neutral wire N. Do not connect from V2+, V2-; pay attention to safety and prevent electric shock.

2. Power-on operation: First connect the power cord to the power terminal of the device according to the definition shown in the figure above, and then power on.

3. Power-off operation: first unplug the power plug, and then remove the power cord.

5 ▶ Specifications

	MISCOM6216	MISCOM6218-2F	MISCOM6220-4F
Switch properties			

Bandwidth	12.8G		
Cache size	4.1Mbit		
MAC table	8K		
Interface			
100M fiber port	-	2*100Base-FX	4*100Base-FX
	SC/FC/ST connectors are available		
100M copper port	16*10 /100Base-TX RJ45 ports	1*10 /100Base-TX RJ45 ports	16*10 /100Base-TX RJ45 ports
	Full-duplex/half-duplex adaptive, supports MDI/MDI-X adaptive		
Power supply			
Consumption	8W@24V(MAX)	10W@24V(MAX)	12W@24V(MAX)
DC power input	DC9~60V		
	Supports dual power input and reverse connection protection		
AC power input	AC85~264V (frequency: 47~63Hz) or DC110~370V		
Mechanical			
Size	160mm×74mm×122mm（L×W×H）(not include din-rail)		
Installation	35mm standard din-rail		
Heat	Aluminum alloy single-rib chassis surface scattered		
IP protection	IP40		
Working environment			
Working Temp.	-40℃~+75℃		
Storage Temp.	-40℃~+85℃		
Industry standard			

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EMC	IEC61000-4-2(ESD),Level4
	IEC61000-4-5(Surge),Level4
	Ethernet ports support 6KV lightning
	IEC61000-4-4(EFT),Level4

6 ▶ Ordering guide

Model	100Base-FX	10/100Base-TX	Power input
MISCOM6216	0	16	DC power supply: DC9~60V
MISCOM6218-2F	2	16	AC power supply: AC85-264V (frequency: 47~63Hz)
MISCOM6220-4F	4	16	or DC110-370V

7 ▶ Pledge

Thank you for purchasing ATO products. You will enjoy the following s
rvices when using ATO products.

We solemnly promises: under normal use, one month's return, one-year free maintenance, five-year warranty, and lifetime maintenance. The specific details are as follows:

➢ If ATO products have quality problems and cannot work normally, they will be refunded for one month, free maintenance for one year, warranty for five years, and maintenance for life.

➢ If the number of repaired products is less than 10, the repair service will be completed within 7 days (excluding transportation time), and the repair service will be completed within one month for more than 10 sets.

➢ Optical passive products such as optical fibers, optical cables, jumpers, flanges, and optical cable terminal boxes are guaranteed within two years, but no return service is provided.

➢ The accessories and power supply that come with the product are guaranteed for one year.

➢ When sending the product back to ATO for repair, it is recommended that the customer use the original packaging or the packaging with the same protective effect, otherwise the customer shall bear the risks that occur during the transportation.

➢ The repaired product can enjoy another 6 months warranty service.

➢ The product after-sales service is detailed in the purchase and sale contract, and ATO has the final interpretation right of this description.