HYUNDAI
ELECTRONICS

IPS SERIES INDUSTRIAL SWITCH
HYU-NE-SW-I4PF001
HYU-NE-SW-I8PF001

User Guide

Packing List

● Industrial switch/ Industrial PoE switch (1 PC)

● Installation kit (1 Set)

- AC power line (1 PC) (only for AC input models)

- User guide (1 PC)

- Warranty card (1 PC)

First, Safety Precautions

● To ensure the safety of people and equipment, when installing, operating, and maintaining the equipment, follow the signs on the equipment and the safety precautions described in the manual. "Warnings" and " notes " in this manual do not represent all safety precautions that should be followed, and are only supplementary to safety precautions.

● When carrying out various operations of our equipment, we must strictly observe the relevant equipment precautions and special safety instructions provided by company. The "safety warnings" listed in the manual only reflect the requirements of company. The safety requirements have not been reflected, and company will not bear any responsibility for the loss caused by the violation of the general safety operation requirements or the violation of the design production and use equipment safety standards.

■ Description

The figures in this document are for reference only. The appearance of the device is subject to actual delivery.

Second, the installation environment requirements

● The industrial switch support DIN rail, desktop, and 19"in racked mounted.

● The temperature and humidity of the installation site must be kept within the temperature and humidity range in which the industrial switch can work normally . For the normal temperature range and relative humidity range of the industrial switch, refer to the industrial switch product datasheet.

● Industrial (PoE) switch grounding is an important step in the installation process. The correct connection of the grounding cable is an important guarantee for the switch's lightning protection, high-voltage surge protection, interference protection, and static electricity damage.

Third, lightning protection requirements

● Do not use outdoor overhead wiring. The equipment may be damaged by lightning. Please use buried or steel pipe wiring.

● The fiber media converter must be grounded before turning on the power to ensure that the grounding resistance of the installation environment does not exceed 10Ω, otherwise the equipment may be damaged.

Fourth, Pre-commissioning

If commissioning is required to confirm whether the switch functions are complete , it is recommended to commission the switch before installation.

Debugging steps

1)Connect the switch to the DC12-57V power supply (at this time , you must pay attention to the positive and negative polarity of the power supply, please refer to the instructions or the wiring method), then connect the AC end of the power supply , observe whether the switch has completed the self-check normally, and confirm that the switch has been powered on normally.

2) Use a network cable to connect the computer to any Ethernet port/optical interface of the switch.

3) Connect the test equipment and check whether the port data is received/sent normally and whether there is packet loss through the PC computer ping packet method.

4) For switches that support the POE power supply , please confirm that the connected device supports POE power supply voltage and power within the specified range.

5) For switches using single-fiber optical modules, please confirm that the optical modules at both ends of a single fiber jumper must be A+B paired before the test can communicate normally.

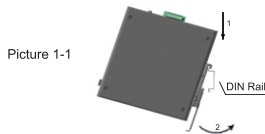## Fifth, industrial switch installation

Installation instructions

■ Please select a suitable installation location or cabinet according to the installation method of the switch. (DIN rail type installation, customers need to configure DIN35mm national standard guide rail, rack-mounted installation is suitable for national standard 1U/19 inch cabinet)

■ When installing the switch, you need to use the matching mounting ear accessories and screws.

■ Please wear protective gloves when installing.

■ It is forbidden to install the switch with power on.

■ The exterior paint decoration of the switch should be kept intact. If there is any paint drop, the paint partneeds to be touched up immediately to prevent corrosion.
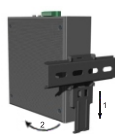
Installation preparation tool

- Labor protection gloves
- Plum screwdriver
- Flat screwdriver

Installation steps

- **DIN Rail installation**
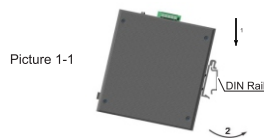
Picture 1-1

DIN Rail

Picture 1-2

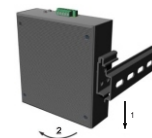**Push-in mounting ear installation method:**
(Installation) As shown in picture 1-1, first snap the hook part of the hanging ear into the upper rail of the rail, and then pull the buckle down to snap into the lower rail of the rail to complete the installation;

(Removal) As shown in picture 1-2, first pull down the buckle, the lower bayonet of the mounting ear is separated from the lower rail of the guide rail, and then pull it up.
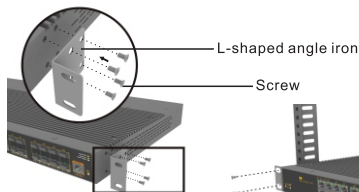
Picture 1-1

DIN Rail

Picture 1-2

Push-in mounting ear installation method:
(Installation) As shown in picture 2-1, first snap the hanging ears with barbs and circlips into the upper rail of the rail, and then press the buckle downwards to snap into the lower rail of the rail to complete the installation; **(Removal)** As shown in picture 2-2, first apply downward pressure, wait until the lower bayonet of the mounting ear is separated from the lower rail of the guide rail, and then pull it upward.

- **Rack installation**
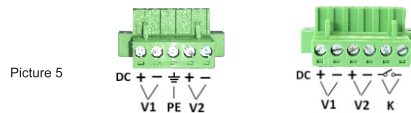
L-shaped angle iron

Screw

Picture 3

Picture 4

Step 1: As shown in picture 3, first fix the brackets on both sides of the machine with screws.
Step 2: As shown in picture 4, put the machine into a suitable position in a standard 19-inch cabinet, and then fix it on the rack.

Sixth, switch connection instructions

- Connect the switch power line to the power supply. (AC or DC).
- The grounding wire needs to be prepared by the user.

Picture 5

DC + − ⏚ + −
V1 PE V2

DC + − + − ⟜
V1 V2 K

Note: For the specific wiring method, please connect according to the actual identification of the device interface. Terminals are defined as follows

Sign	Name	Description
V1	Main power input connection terminal	1. When wiring, be sure to confirm the positive and negative polarity of the DC power line
V2	Standby power input connection terminal	2. For switches that support POE, the power supply voltage must be within the range of DC48-57V 3. Non-POE switch, the power supply voltage range is DC12-57V
PE	Power protection ground connection terminal	Power supply protective ground
K	Alarm switch connection terminal	Used to connect alarm unit circuits (such as alarm lights, alarm signal control switches)

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▲ The AC power supply must be disconnected when installing and removing the switch and the power line. Live operation is prohibited to avoid personal injury..

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Seventh, check after installation

■ Check whether the mounting parts (hanging ears) are firm and whether the screws are tightened.
■ Check whether the polarity of all cable connections is correct , whether the connection is firm and reliable, and ensure that there is no short circuit.
■ Check whether there are screw holes without screws and whether the screws of each module are firm.
■ Power on and check. Whether the industrial switch has completed the self-check process normally, and whether the indicator of the connected port is normal.

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Eighth, indicator and button function table

Symbol	Indicator Function	State	Description	Colour
PWR	Work indicator	On	Normal	Green
		Off	Switch no power supply or failure	
		Blink	System abnormality or failure	
PoE	PoE	On	Normal power supply	Green
		Blink	PD device failure or power overload	
		Off	No connected PD or PoE power off	
Link	Network	On	Link is ok	Yellow
		Blink	The link port is receiving/sending data	
		Off	Link failure or port failure	
L/A	Optical fiber	On	The optical fiber port is ok	Green
		Blink	The optical fiber port is receiving/sending data	
		Off	Optical fiber failure or port failure	
Speed or 1000M	Port rate	On	Gigabit transmission	Green
		Off	Non-gigabit transmission	

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