Industrial
Unmanaged Ethernet Switch

IES-1050A / 1080A Series User's Manual

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Getting to Know Your Switch

1.1 About the IES-1050A / 1080A unmanaged Industrial Switch

The IES-1050A / 1080A series are reliable unmanaged industrial switches which can work under wide temperature, dusty environment and humid condition.

1.2 Hardware Features

- Redundant three DC power inputs (two on terminal block & one on power jack)
- Wide Operating Temperature: -40 to 70^{o}C
- Storage Temperature: -40 to 85^{o}C
- Operating Humidity: 5% to 95%, non-condensing
- Casing: IP-30
- 10/100Base-T(X) Ethernet port
- Dimensions(W x D x H) :33 mm(W)x 95 mm(D)x 144.3 mm(H)

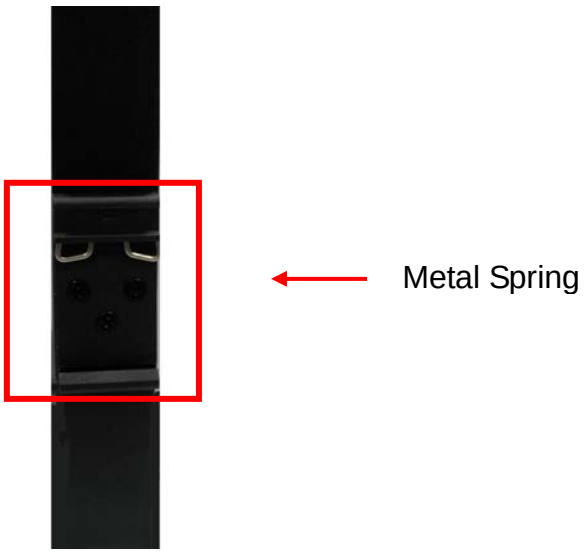
Hardware Installation

2.1 Installing Switch on DIN-Rail

Each switch has a DIN-Rail kit on rear panel. The DIN-Rail kit helps switch to fix on the DIN-Rail. It is easy to install the switch on the DIN-Rail:

2.1.1 Mount IES-1050A / 1080A Series on DIN-Rail

Step 1: Slant the switch and mount the metal spring to DIN-Rail.



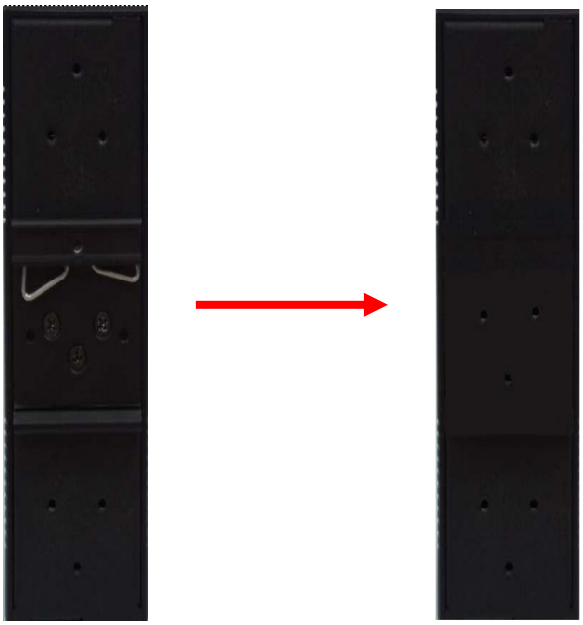
Step 2: Push the switch toward the DIN-Rail until you heard a "click" sound.

2.2 Wall Mounting Installation

Each switch has another installation method for users to fix the switch. A wall mount panel can be found in the package. The following steps show how to mount the switch on the wall.

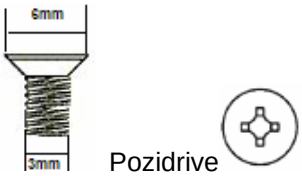
2.2.1 Mount IES-1050A / 1080A Series on the wall

Step 1: Remove DIN-Rail kit.



Step 2: Use 6 screws that can be found in the package to combine the wall mount panel. Just like the picture shows below:

The screws specification shows in the following two pictures. In order to prevent switches from any damage, the screws should not larger than the size that used in IES-1050A / 1080A series switches.



Step 3: Mount the combined switch on the wall.

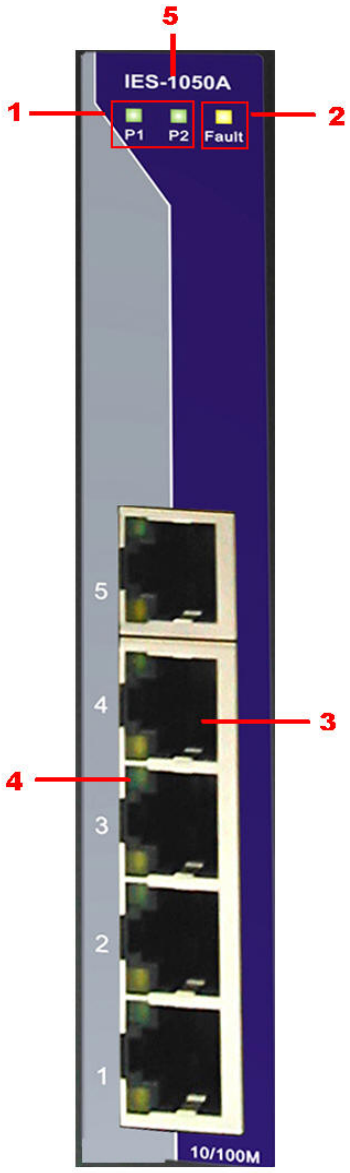
Hardware Overview

3.1 Front Panel

The following table describes the labels that stick on the IES-1080 / 1062 series.

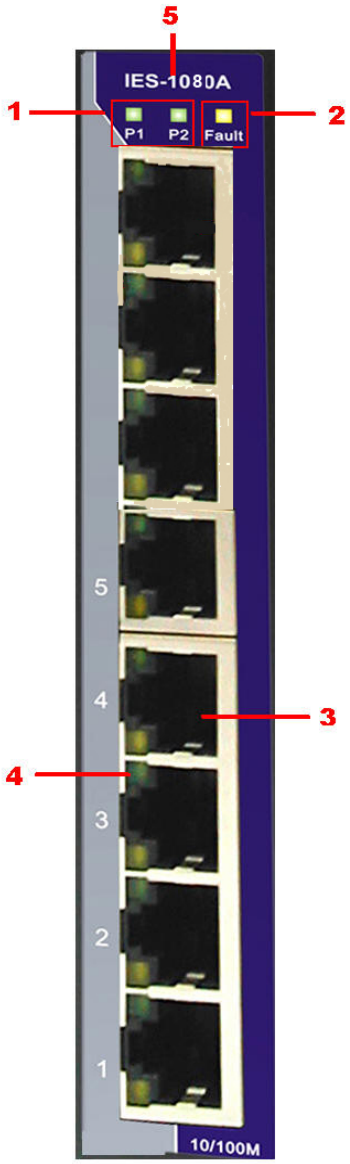
Port	Description
10/100 RJ-45 fast Ethernet ports	10/100Base-T(X) RJ-45 fast Ethernet ports support auto-negotiation. Default Setting : Speed: auto Duplex: auto Flow control : disable

IES-1050A



1. LED for PWR1&PW2. When the PWR1 links, the green led will be light on.
2. LED for Fault Relay. When the power fault occurs, the amber LED will be light on.
3. 10/100Base-T(X) Ethernet ports.
4. LED for Ethernet ports status.
5. Model name

IES-1080A



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3.2 Front Panel LEDs

LED	Color	Status	Description
PWR1	Green	On	DC power module 1 activated.
PWR2	Green	On	DC power module 2 activated.
Fault	Amber	On	Fault relay. Power failure.
10/100Base-T(X) Fast Ethernet ports			
LNK / ACT	Green	On	Port link up.
		Blinking	Data transmitted.

3.3 Bottom Panel

The bottom panel components of IES-1080 / 1062 Series are shown as below:

1. Terminal block includes: PWR1, PWR2 (12-48V DC) and Relay output (1A@24VDC).
2. Power Fault Check

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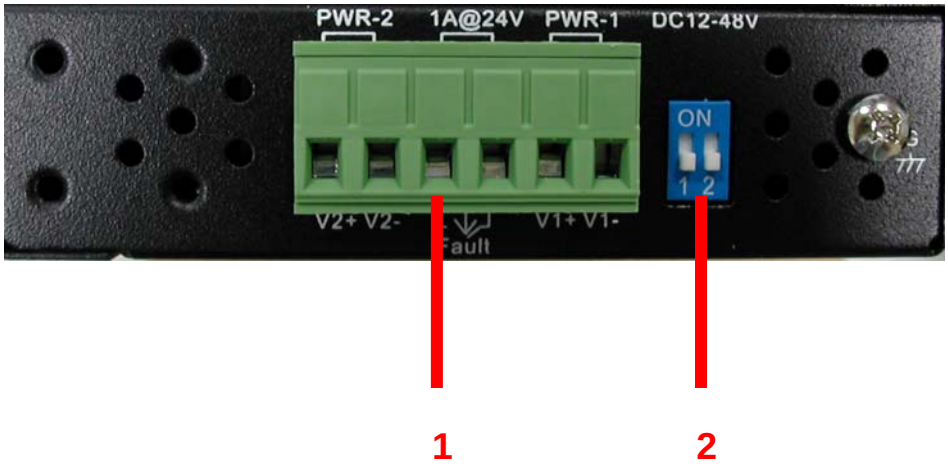
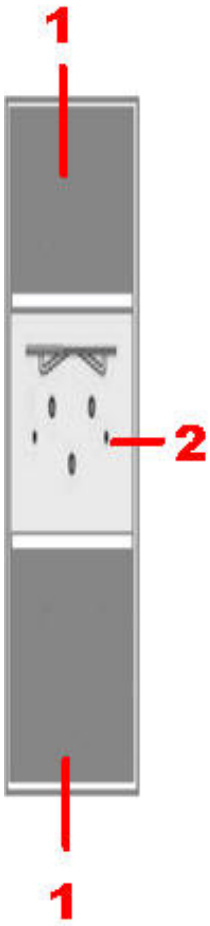


3.4 Rear Panel

The components in the rare of IES-1080 / 1062 Series are shown as below:

1. Screw holes for wall mount kit.
2. DIN-Rail kit



Cables

4.1 Ethernet Cables

The IES-1050A / 1080A series switches have standard Ethernet ports. According to the link type, the switches use CAT 3, 4, 5,5e UTP cables to connect to any other network device (PCs, servers, switches, routers, or hubs). Please refer to the following table for cable specifications.

Cable Types and Specifications

Cable	Type	Max. Length	Connector
10BASE-T	Cat.3, 4, 5 100-ohm	UTP 100 m (328 ft)	RJ-45
100BASE-TX	Cat.5 100-ohm UTP	UTP 100 m (328 ft)	RJ-45

4.1.1 100BASE-TX/10BASE-T Pin Assignments

With 100BASE-TX/10BASE-T cable, pins 1 and 2 are used for transmitting data, and pins 3 and 6 are used for receiving data.

RJ-45 Pin Assignments

Pin Number	Assignment
1	TD+
2	TD-
3	RD+
4	Not used
5	Not used
6	RD-
7	Not used
8	Not used

The IES-1050A / 1080A Series switches support auto MDI/MDI-X operation. You can use a straight-through cable to connect PC to switch. The following table below shows the 10BASE-T/ 100BASE-TX MDI and MDI-X port pin outs.

MDI/MDI-X pins assignment

Pin Number	MDI port	MDI-X port
1	TD+(transmit)	RD+(receive)
2	TD-(transmit)	RD-(receive)
3	RD+(receive)	TD+(transmit)
4	Not used	Not used
5	Not used	Not used
6	RD-(receive)	TD-(transmit)
7	Not used	Not used
8	Not used	Not used

Note: "+" and "-" signs represent the polarity of the wires that make up each wire pair.

Technical Specifications

ORing Switch Model	IES-1080A	IES-1050A
Physical Ports		
10/100 Base-T(X) Ports in RJ45 Auto MDI/MDIX	**8**	**5**
Technology		
Ethernet Standards	IEEE 802.3 for 10BaseT, IEEE 802.3u for 100BaseT(X) and 100BaseFX, IEEE 802.3x for Flow control	
MAC Table	~~1024~~ MAC addresses (now 2048)	
Processing	Store-and-Forward	
LED indicators		
Power indicator	Green : Power LED x 2	
Fault indicator	Yellow : Indicate PWR1 or PWR2 failure	
10/100TX RJ45 port indicator	Green for port Link/Act. Yellow for Duplex/Collision	
Fault contact		
Relay	Relay output to carry capacity of 1A at 24VDC	

Power		
Redundant Input power	Dual DC inputs. 12-48VDC on 6-pin terminal block.	
Power consumption (Typ.)	4 Watts	3.5 Watts
Overload current protection	Present	
Reverse polarity protection	Present	
Physical Characteristic		
Enclosure	IP-30	
Dimension (W x D x H)	33(W) x 95(D) x 144.3(H) mm (1.30 x 3.74 x 5.68 inch.)	
Weight (g)	391	382g
Environmental		
Storage Temperature	-40 to 85°C (-40 to 185°F)	
Operating Temperature	-40 to 70°C (-40 to 158°F)	
Operating Humidity	5% to 95% Non-condensing	
Regulatory approvals		
EMI	FCC Part 15, CISPR (EN55022) class A	
EMS	EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11	
Shock	IEC60068-2-27	
Free Fall	IEC60068-2-32	
Vibration	IEC60068-2-6	
Safety	EN60950	
Warranty	5 years	