ORing

SWITCH INDUSTRIAL

Quick Installation Guide

IES-150B

Industrial Unmanaged Switch

Introduction

IES-150B is unmanaged Ethernet Switch with 5x10/100Base-T(X) ports and extended operating temperature range from -40°C to 75°C for the harsh environments. The enclosure designed with compact size and a robust housing; it can help you to easily installed.

Package Contents

The device is shipped with the following items. If any of these items is missing or damaged, please contact your customer service representative for assistance.

Contents	Pictures	Number
IES-150B		X 1
DIN-rail Kit		X 1
Wall-mount Kit		X 2
QIG		X 1

⚠️
* Indoor use and pollution degree II, it must be wiped with a dry cloth for clean up the labelling.
* Utilisation en intérieur et degré de pollution II, il faut l'essuyer avec un chiffon sec pour nettoyer l'étiquetage.
* Do not block air ventilation holes.
* Ne bouchez pas les orifices de ventilation.
* If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired."
* Si l'appareil est utilise d'une maniere non specifiee par le fabricant, la protection qu'il apporte peut se voir diminuee."
* Shall be mounted in the Industrial Control Panel and ambient temperature is not exceed 75 degree C
* doit être monté dans le panneau de commande industriel et la température ambiante ne doit pas dépasser 75 degrés C

Preparation

Before you begin installing the switch, make sure you have all of the package contents available.

Safety & Warnings

⚠️ **Elevated Operating Ambient:** If installed in a closed cabinet, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (Tma) specified by the manufacturer.

⚠️ **Reduced Air Flow:** Installation of the equipment should be such that the amount of air flow required for safe operation of the equipment is not compromised.

⚠️ **Mechanical Loading:** Mounting of the equipment in the din-rail should be such that a hazardous condition is not achieved due to uneven mechanical loading.

⚠️ **Circuit Overloading:** Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

Dimension Unit =mm (Tolerance ±0.5mm)

Panel Layouts

Front Panel

1. PWR1 LED
2. PWR2 LED
3. LAN Port
4. LAN port link/act indicator
5. LAN port speed indicator

Top Panel

1. Wall-mount screw holes
2. Terminal block
3. Frame ground

Real Panel
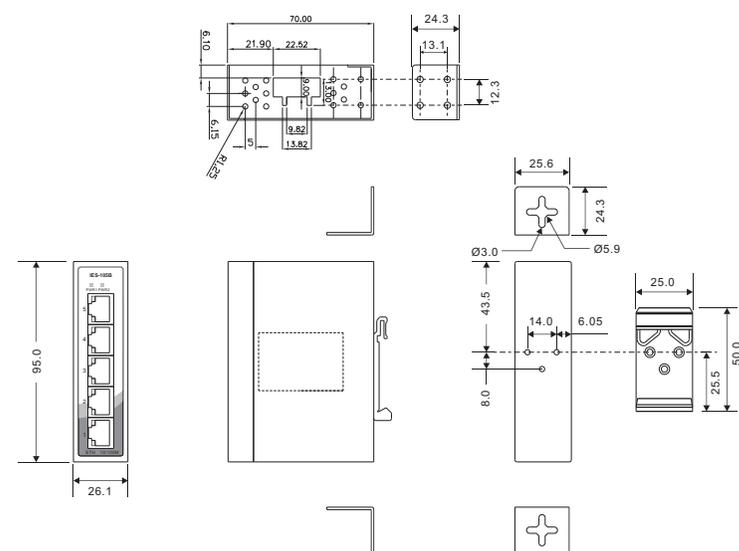
1. Din-rail screw holes
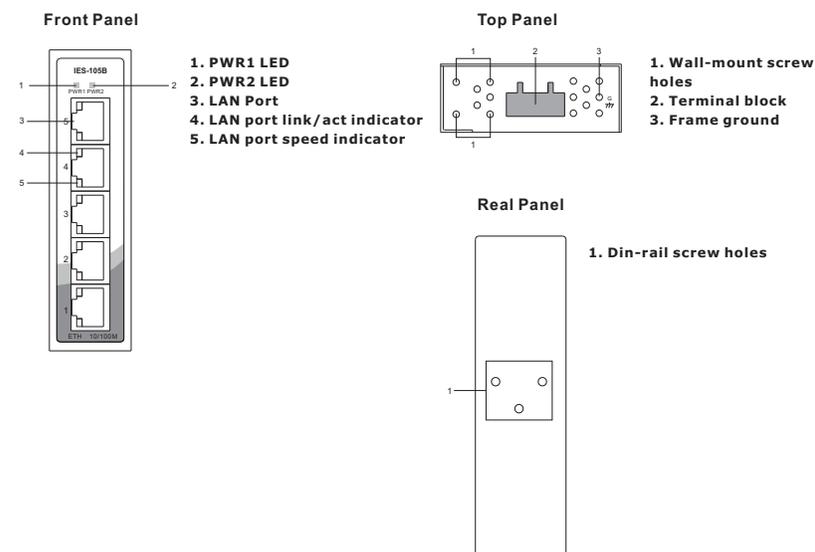
Installation

DIN-rail Installation

Step 1: Slant the switch and screw the Din-rail kit onto the back of the switch, right in the middle of the back panel.
Step 2: Slide the switch onto a DIN-rail from the Din-rail kit and make sure the switch clicks into the rail firmly.
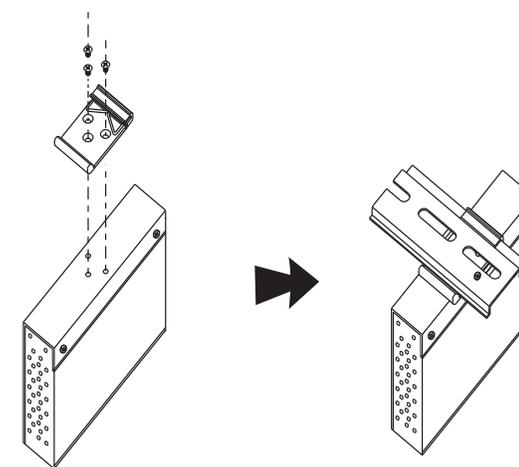

Wall-mounting

Step 1: Screw the two pieces of wall-mount kits onto both sides of the switch. A total of eight screws are required, as shown below.
Step 2: Use the switch, with wall mount plates attached, as a guide to mark the correct locations of the four screws.
Step 3: Insert four screw heads through the large parts of the keyhole-shaped apertures, and then slide the switch downwards. Tighten the four screws for added stability.

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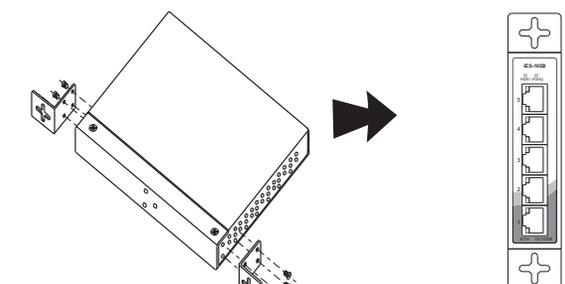
Network Connection

The **IES-150B** has standard gigabit Ethernet ports. According to the link type, the switch uses CAT 3, 4, 5, 5e UTP cables to connect to any other network devices (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

For pin assignments for the cables, please refer to the following table.

10/100Base-T(X) RJ-45

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

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

Wiring

The switch supports dual redundant power supplies which are located on the 4-pin terminal block.

STEP 1: Insert the negative/positive wires into the V-/V+ terminals, respectively.

STEP 2: To keep the DC wires from pulling loose, use a small flat-blade screwdriver to tighten the wire-clamp screws on the front of the terminal block connector.

PWR2   PWR1

V2+ V2- V1+ V1-

Configurations

After installing the IES-150B and connecting cables, start the switch by turning on power. The green power and LEDs should turn on.

LED indication table

LED	Color	Status	Description
PWR1	Green	On	DC power module 1 activated
PWR2	Green	On	DC power module 2 activated
10/100Base-T(X) Ethernet ports			
LNK/ACT	Green	On	Port is linked
Speed	Amber	On	Port link up on 100Mbps
		Off	Port link up on 10Mbps

Specifications

ORing Switch Model	IES-150B
Physical Ports	
10/100 Base-T(X) Ports in RJ45 Auto MDI/MDIX	**5**
Technology	
Ethernet Standards	IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX IEEE 802.3x for Flow control
MAC Table	1K
Packet buffer	448Kbits
Processing	Store-and-Forward
Switch Properties	Switching latency: 7 us Switching bandwidth: 1Gbps Throughput (packet per second) : 0.744Mpps@64Bytes packet
LED Indicators	
Power indicator	Green: Power LED x2
10/100TX RJ45 Port Indicator	Green for port Link/Act. Amber for duplex indicator
Power	
Input power	Dual 12~48 VDC and 24 VAC power inputs at 4-pin terminal block * Supplied by SELV source evaluated by UL 61010-1 or 61010-2-201 power supply only. * Fourni par la source SELV évaluée uniquement par l'alimentation UL 61010-1 or 61010-2-201.
Power consumption(Typ.)	12-48VDC: 0.10A-0.04A; 24VAC(50/60Hz): 0.10A
Overload current protection	Present
Reverse polarity protection	Present
Physical Characteristic	
Enclosure	IP-30 Metal (non UL certified)
Dimension (W x D x H)	26.1(W) x 70(D) x 95(H)mm (1.03x 2.76 x 3.74inch.)
Weight (g)	205 g
Hardware Version	V3.0
Environmental	
Storage Temperature	-40 to 85°C (-40 to 185°F)
Operating Temperature	-40 to 75°C (-40 to 167°F)
Operating Humidity	5% to 95% Non-condensing
Regulatory Approvals	
EMC	CE EMC (EN 55024, EN 55032), FCC Part 15 B
EMI	EN 55032, CISPR32, EN 61000-3-2, EN 61000-3-3, FCC Part 15 B class A
EMS	EN 55024 (IEC/EN 61000-4-2 (ESD: Contact 4KV, Air 8KV), IEC/EN 61000-4-3 (RS: 3V), IEC/EN 61000-4-4 (EFT Power 0.5KV, Signal 0.5KV), IEC/EN 61000-4-5 (Surge: Power 0.5KV, Signal 1KV), IEC/EN 61000-4-6 (CS: 3V), IEC/EN 61000-4-8(PFMF), IEC/EN 61000-4-11 (DIP))
Shock	IEC60068-2-27
Free Fall	IEC60068-2-31
Vibration	IEC60068-2-6
Safety	IEC 60950-1, UL 60950-1, EN 60950-1 (LVD), UL61010-1, UL61010-2-201
Others	E-MARK
MTBF	2638236 hrs
Warranty	5 years

Warning [AVERTISSEMENT]
Take into consideration the following guidelines before wiring the device
[Tenez compte des directrices suivantes avant de câbler l'appareil.]
1. Terminal block is mating with 2ESDV Plug and suitable for 18AWG. Torque value 4.5 lb-in.
[Le bornier est compatible avec les connecteurs 2ESDV et convient pour 18AWG. Valeur de couple 4,5 lb-in.]
2. The temperature rating of the input connection cable should higher than 105°C
[La température de service nominale du câble d'entrée doit être supérieure à 105 °C]