

Quick Installation Guide

Introduction

IES-180B is unmanaged Ethernet switch with 8x10/100Base-T(X) ports. With very compact size of housing, you can install IES-180B easily. In addition, IES-180B is with rigid IP-30 housing design and can operate under harsh environment. The extended operating temperature range from -40°C to 75°C is ready and can satisfy most requirement of operation.

Package Contents

The IES-180B series are 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-180B | HH | X 1 |
| DIN-rail Kit | | X 1 |
| Wall-mount Kit | ** | X 2 |
| QIG | | X 1 |

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



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



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

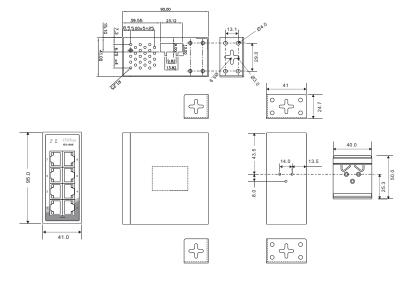


The product shall be installed in an enclosure with adequate rigidity.

Keep at least 50mm distance from ventilation openings to the wall, installation surface or the other controllers for heat dissipation.

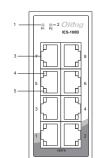
IES-180B

Dimension Unit =mm (Tolerance ±0.5mm)

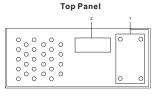


Panel Layouts

Front Panel



- 1. PWR1 LED 2. PWR2 LED
- 3. LAN port
- 4. LAN port link/act indicator
- 5. LAN port duplex/Collision indicator



- 1. Wall-mount screw holes
- 2. Terminal block

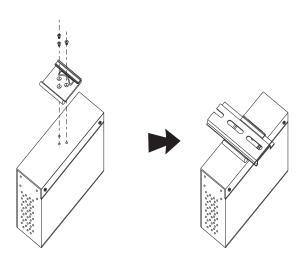
Industrial Unmanaged Switch

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

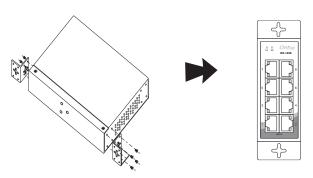


Wall-mounting

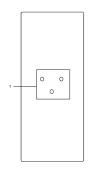
Step 1: Screw the two pieces of wall-mount kits onto both sides of the switch. A total of eight screws are required, as shown below.

Step 2: Use the switch, with wall mount plates attached, as a guide to mark the correct locations of wall-mount screws.

Step 3: Insert screw through the large parts of the keyhole-shaped apertures, and then slide the switch downwards. Tighten the four screws for added stability.



Real Panel



1. Din-rail screw holes



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IES-180B

Industrial Unmanaged Switch

Network Connection

The IES-180B 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 | Туре | Max. Length | Connector |
|---|------------|----------------------|--------------------|-----------|
| | 10BASE-T | Cat. 3, 4, 5 100-ohm | UTP 100 m (328 ft) | RJ-45 |
| Γ | 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.

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.



Configurations

After installing the IES-180B 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 |
| Curred | Amber | On | Port link up on 100Mbps |
| Speed | | Off | Port link up on 10Mbps |

Specifications

| ORing Switch Model | IES-180B | |
|--|---|--|
| Physical Ports | | |
| 10/100Base-T(X) Ports in RJ45 Auto MDI/MDIX | 8 | |
| Technology | | |
| Ethernet Standards | IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX IEEE 802.3x for Flow control | |
| MAC Table | 1K MAC address | |
| Processing | Store-and-Forward | |
| Switch Latency | <7us | |
| Switch Bandwidth | 1Gbps | |
| Packet buffer size | 448K bits | |
| LED Indicators | | |
| Power indicator | Green for PWR1, PWR2 | |
| 10/100Base-T(X) RJ45 port indicator | Upper for Link/Act indicator, Green for port Link/Act. Lower for speed indicator, Amber for 100Mbps, OFF for 10Mbps | |
| Power | | |
| Input power | Dual 12~48 VDC and 24VAC voltage power input on 4-pin terminal block | |
| Power consumption(Typ.) | 4 Watts | |
| Overload current protection | Present | |
| Reverse polarity protection | Present | |
| Physical Characteristic | | |
| Enclosure | IP-30 | |
| Dimension (W x D x H) | 41 (W) x 90 (D) x 95 (H)mm (1.61 x 3.54 x 3.74 inch) | |
| Weight (g) | 334 g | |
| Environmental | | |
| Storage Temperature | -40 to 85°C (-40 to 185°F) | |
| Operating Temperature | -40 to 75°C (-40 to 167°F) | |
| Operating Humidity | rating 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 | |
| EMS | EN 55024 (IEC/EN 61000-4-2 (ESD), IEC/EN 61000-4-3 (RS), IEC/EN 61000-4-4 (EFT), IEC/EN 61000-4-5 (Surge), IEC/EN 61000-4-6 (CS), 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 | EN60950-1 | |
| MTBF | 1390019 hr | |

H/W version: V2

Dual 12-48Vdc power input at 4-pin terminal block (Supply by SELV, Class 2 or LPS Power Source)

If the equipment is used in a manner not specified by the manufacturer, the protection provide by equipment may be impaired.

Altitude: Less than 2000m

Pollution Degree: 2

Input Wire Temperature Rated minimum 90°C, 12-24AWG

