SWITCH INDUSTRIAL

ORing

Quick Installation Guide

IES-1142P

Industrial Unmanaged Switch

Introduction

IES-1142P is an unmanaged Ethernet switch with fourteen 10/100Base-T(X) LAN ports and two 100Base-FX SFP ports. The SFP ports can meet demand for long-distance data transmission. Besides a high port density, the device comes with two power inputs to provide power redundancy. When the primary DC power input fails, the backup power input will take over immediately to guarantee a non-stop operation. With a wide operating temperature range from -40°C to 70°C, the device can work reliably in harsh environments.

Package Contents

The 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-1142P		X 1
DIN-rail Kit		X 1
QIG		X 1

Preparation

Before you begin installing the device, make sure you have all of the package contents available and a PC with Microsoft Internet Explorer 6.0 or later, for using web-based system management tools.

Safety & Warnings

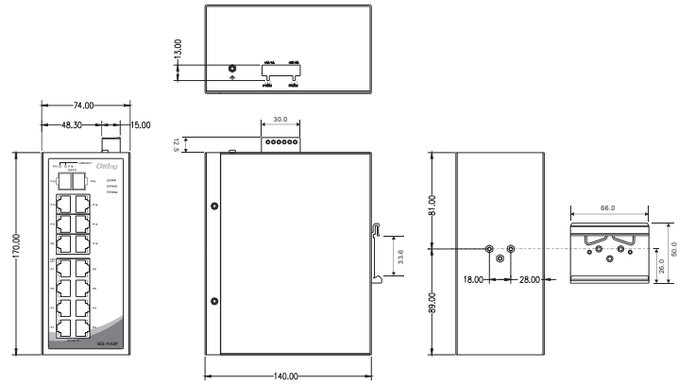
Elevated Operating Ambient: If installed in a closed environment, make sure the operating ambient temperature is compatible with the maximum ambient temperature (Tma) specified by the manufacturer.

Reduced Air Flow: Make sure the amount of air flow required for safe operation of the equipment is not compromised during installation.

Mechanical Loading: Make sure the mounting of the equipment is not in a hazardous condition due to uneven mechanical loading.

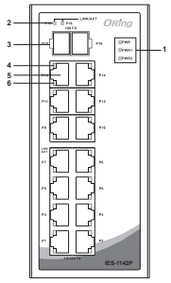
Circuit Overloading: Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this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

Dimension



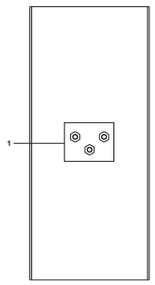
Panel Layouts

Front View



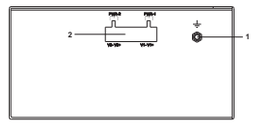
1. Power LED
2. Link/Act indicator for SFP ports
3. SFP port
4. Link/Act indicator for LAN ports
5. LAN port
6. Speed indicator for LAN ports

Rear View



1. DIN-rail screw holes

Top View

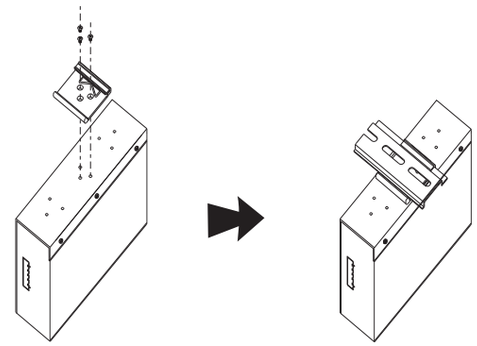


1. Terminal block
2. Grounding screw

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.



Network Connection

The device has standard 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 different types of cables, please refer to the following tables.

10/100 Base-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

10/100 Base-T(X) MDI/MDI-X		
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.

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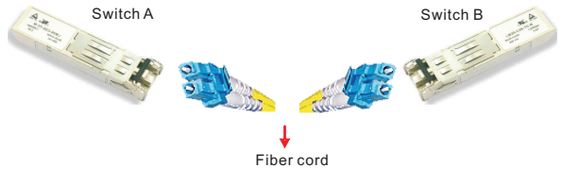
SFP Connection

The device supports fiber connection via SFP transceivers which are hot-swappable and can be plugged into the SFP ports to connect the switch with the fiber-optic network. Please remember that the TX port of Switch A should be connected to the RX port of Switch B.



Wiring

Power inputs

The switch supports dual redundant power supplies, Power Supply 1 (PWR1) and Power Supply 2 (PWR2). The connections for PWR1 and PWR2 are located on the terminal block.

STEP 1: Insert the negative/positive wires into the V-/V+ terminals, respectively.
STEP 2: To keep the wires from pulling loose, use a small flat-blade screwdriver to tighten the wire-clamp screws on the front of the connector.

Grounding

Grounding and wire routing help limit the effects of noise due to electromagnetic interference (EMI). Run the ground connection from the ground screws to the grounding surface prior to connecting devices.

Configurations

After installing the switch, the green power LED should turn on. Please refer to the following tablet for LED indication.

LED	Color	Status	Description
PWR	Green	On	DC power on
PWR1	Green	On	DC power module 1 activated
PWR2	Green	On	DC power module 2 activated
10/100Base-T(X) RJ45 Port			
LNK/ACT	Green	On	Port is linked
		Blinking	Transmitting data
	Amber	On	Port is running at 100Mbps
		Off	Port is running at 10Mbps
SFP Port			
LNK/ACT	Green	On	Port is linked
		Blinking	Transmitting data

Specifications

ORing Switch Model	IES-1142P
Physical Ports	
10/100 Base-T(X) Ports in RJ45 Auto MDI/MDIX	14
100Base-FX SFP Ports	2
Technology	
Ethernet Standards	IEEE 802.3 for 10Base-T, IEEE 802.3u for 100Base-TX and 100Base-FX IEEE 802.3x for Flow control
MAC Table	4096
Processing	Store-and-Forward
Power	
Redundant Input power	Dual DC inputs. 12~48VDC on 6 pin terminal block
Power consumption(Typ.)	10 Watts
Overload current protection	Present
Reverse polarity protection	Present on terminal block
Physical Characteristic	
Enclosure	IP-30
Dimension (W x D x H)	74.0(W) x 140.0(D) x 170.0(H) mm (2.91 x 5.51 x 6.69 inch.)
Weight (g)	1120 g
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	EN60950-1
MTBF	719800. 9498
Warranty	5 years

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ORing Industrial Networking Corp.
TEL: +886-2-2218-1066 Website: www.oring-networking.com
FAX: +886-2-2218-1014 E-mail: support@oring-networking.com