Moxa VP-IR2 Series User's Manual

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MOXA®

Moxa VP-IR2 Series User's Manual

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Before Getting Started

Before using your VP-IR2, read the following information:

❒ The VP-IR2 is designed for the following applications:

1) For use with Moxa VPort series IP cameras to enhance night view images.

2) For use independently as an illuminator.

❒ To prevent damage or problems caused by improper use, read this user's manual before operating the device and peripherals.

❒ If you experience a system error, and the system cannot be recovered, please contact your local distributor.

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Introduction

The VP-IR2 series IR illuminator is designed specifically to work with Moxa VPort series IP cameras. It features high power efficiency and a long LED life cycle, and is suitable for all types of industrial surveillance applications. The VP-IR2 can be easily mounted on a VPort camera housing.

Package Checklist

- VP-IR2 series IR illuminator

Model Name	Description
VP-IR22080	Infrared LED illuminator, 20°, 850 nm, 12 VDC, 60 to 100 m effective range
VP-IR26080	Infrared LED illuminator, 60°, 850 nm, 12 VDC, 20 to 50 meter effective range

- Nut and bolt for mounting the VP-IR2 to a VPort camera housing
- Power and I/O cable

NOTE	Moxa's VP-IR2 Series is shipped with the mounting bracket attached to the body. When installing the VP-IR2, use an appropriate screw to attach the VP-IR2 mounting bracket to a wall, or use the provided nut and bolt to attach the VP-IR2 mounting bracket to an appropriate device or frame.

NOTE	Check the model name on the VP-IR2's side label to verify that you received the model you ordered.

NOTE	This product must be installed in compliance with your local laws and regulations.

Physical Description
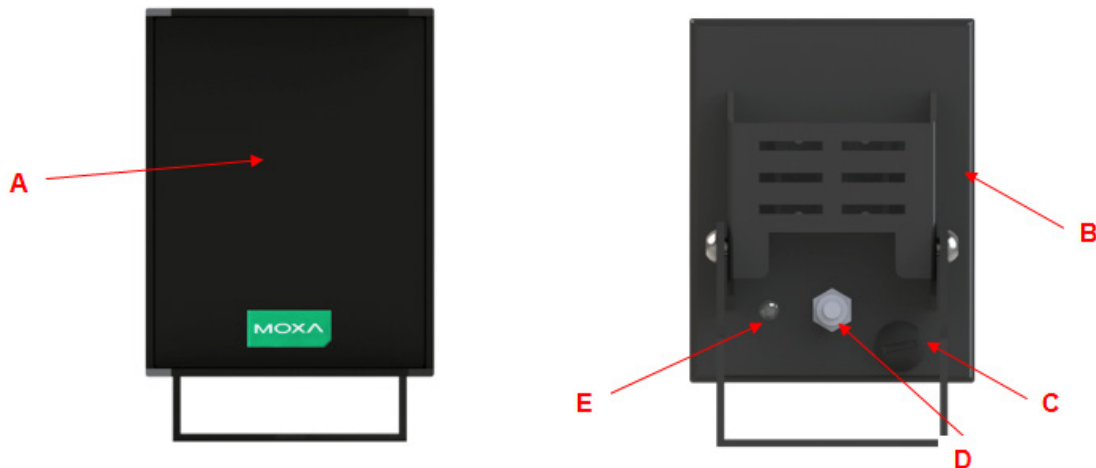
A: Front cover, made with PMMA protective material

B: Main body

C: Protective cover for the DIP switch and sensitivity adjuster

D: Power & Signal I/O

E: Photo cell light sensor

Mode Description

The VP-IR2 series supports 2 modes.

Active mode

The Illuminator will be switched On or Off automatically based on the reading of the internal photocell light sensor. The user can adjust the sensitivity of the light sensor on the back panel.

Passive mode

The Illuminator will be switched On or Off based the camera's I/O signal. In this mode, the illuminator can be controlled by the camera's built-in light sensor.

Switch for Active/ Passive mode

Sensitivity adjuster for light sensor
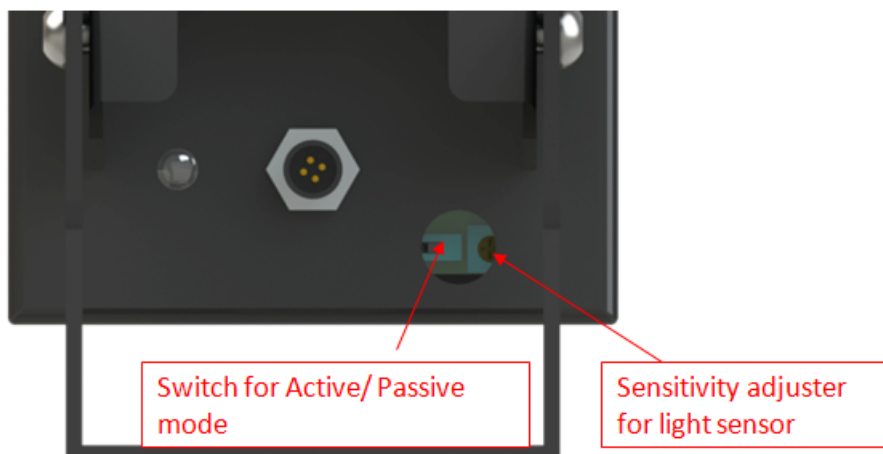
- **Switch for Active/Passive mode:**

	When the switch is in the **ON** position, it is in Active mode.
	When the switch is in the **1** position, it is in Passive mode.

- **Sensitivity adjuster for light sensor:**

	The adjuster can be set to any value between 3 Lux and 200 Lux: • 3 Lux: Rotate to the maximum clockwise (↻) position • 200 Lux: Rotate to the maximum counterclockwise (↺) position

Dimensions (unit = mm)

Front View   Side View   Rear View
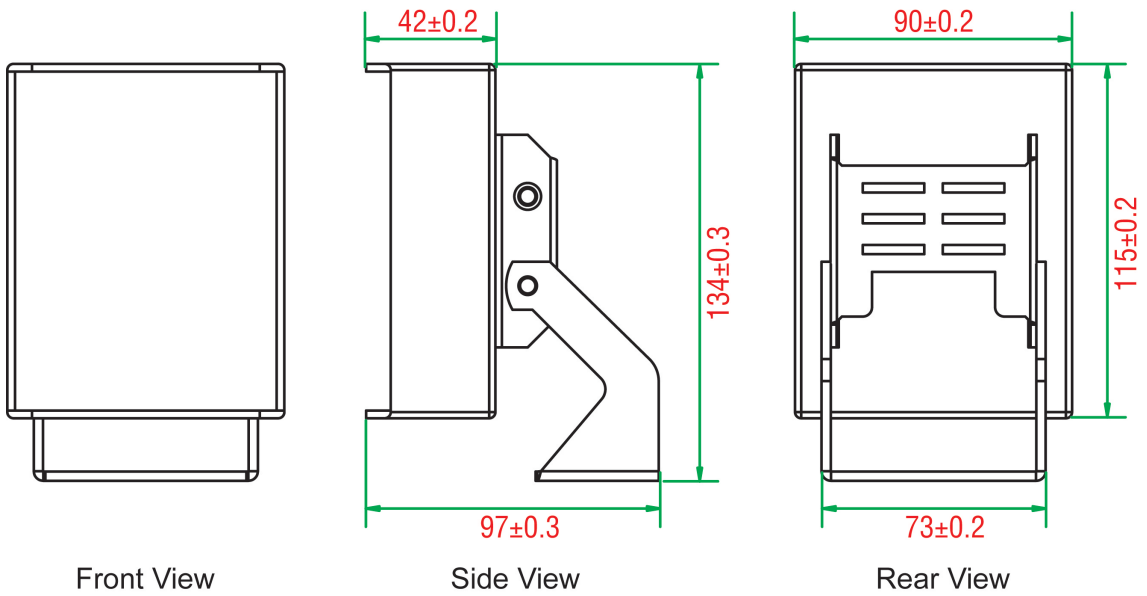
In this chapter, we describe how to install and synchronize the VP-IR2.

Installation

The VP-IR2 IR illuminator is usually used together with a Moxa CCTV camera. The VP-IR2 can be installed in the following ways:

1. **Mounted to a wall (use an appropriate screw)**

   The VP-IR2 comes with a mounting bracket (already attached) that can be mounted to a wall. Use an appropriate screw to mount the unit to a wall and then connect the power and I/O cable to the camera that the VP-IR2 will be used with.

2. **Mounted to a pole (use an appropriate pole mount kit)**

   To mount the VP-IR2 to a pole, choose a pole mount adapter that is suitable for the size of the pole, and then mount the VP-IR2 to the adapter.

3. **Mounted to a VP camera housing and VPort camera**

   Use the nut and bolt included in the package to attach the VP-IR2 to a VP camera housing. The following example illustrates how to install the VP-IR2 to a VP-CI701 housing and VP-CI800 bracket.

   a. Install the VPort camera in the VP-CI701 camera housing.

   b. Pull the VP-IR2's power and I/O cable through the VP-CI800 bracket. The end of the cable with loose electric wires should be pulled out from the top of the bracket, as illustrated in the following photograph.
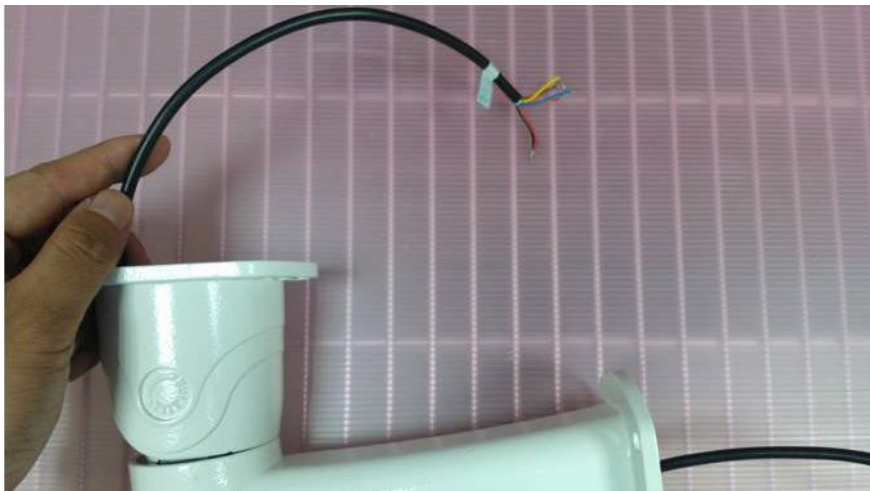
   c. Pull the wire end of the cable into VP-CI701 housing through the waterproof connector at the bottom of the VP-CI701's housing. Completely tighten the waterproof connector after the cable is pulled through.

4. **Connect the power wires to the power source, and the I/O wires to the VPort camera**

There combination Power - I/O cable has 6 wires.

Color of Wire	Connection	Function
Red	12 VDC power +	With a 12 VDC power input, the power consumption is about 10 watts.
Black	12 VDC power -	
Blue	Alarm input +	In Passive mode, connect with VPort's Relay to switch the illuminator to ON or OFF.
White	Alarm input -	
Yellow	Alarm output +	In Active mode, connect with VPort's DI to switch the VPort to DAY or NIGHT mode.
Green	Alarm output -	

a. Passive mode connection:

Step 1:
Turn the Active/Passive mode switch to 1.

Step 2:
Connect the alarm input + (blue wire) with the Relay's NO (normal open) pin.

Step 3:
Connect the alarm input – (white wire) with the Relay's C (common) pin.

b. Active mode connection:
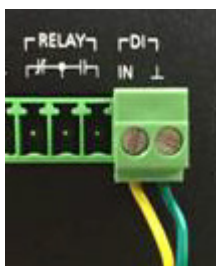
Step 1:
Turn the Active/Passive mode switch to ON.

Step 2:
Connect the alarm output + (yellow wire) with the DI's IN (+) pin.

Step 3:
Connect the alarm output – (green wire) with the DI's ⊥ (ground) pin.

5. **Configure the VPort's operation to synchronize with the VP-IR2**

   a. Passive mode configuration:

   Step 1: Configure the VPort's light sensor.

   Step2:   Enable the "Trigger relay output when day/night mode switch". The relay status should be in "Deactivated" status for day mode, and "Activated" status fir night mode.

   b. Active mode configuration:

   Step 1: Configure the DI control to "High/Low Switch".

6. **Complete the installation with the VP camera housing and brackets.**

   Step 1: Close the VP-CI701's housing and mount the VP-CI800's bracket on the housing.

   Step 2: Install the housing and bracket on the wall or panel.

   Step 3: Attach the VP-IR2 to the housing with the nut and bolt provided in the package.

NOTE   Be sure to install the VP-IR2 onto the VP-CI701 housing and VP-CI800 bracket before you install it on the wall.

NOTE   Follow the same process if you are installing the VP-IR2 to another housing or camera.

A

Product Specifications

VP-IR2 Series	
Infrared Wavelength	850 nm
Angle	VP-IR22080: 20°
	VP-IR26080: 60°
IR Effective Range	VP-IR22080: 60 to 100 m
	VP-IR26080: 20 to 50 m
Automatic IR On/Off	Controlled by internal light sensor, or external I/O
Operating Temperature	-30 to 60°C (-22 to 140°F)
IP Rating	IP66
ICR Switching	Input: Volt-free relay output
	Output: 12 VDC drive power
Power Consumption	10 W
Power Requirement	12 VDC

NOTE You can mount multiple VP-IR2 IR illuminators pointing in the same direction to increase the illuminated distance and area.