

AI-102 IR Illuminator

Installation Guide

Rev. 1.1

Revision History:

Rev. 1.0: Initial release

Rev. 1.1: Changed effective IR range and power consumption.

AI-102 Tube Type Infrared Illuminator



I Specifications

Model Number	AI-102
IR LED quantity	12 pcs in 2 tube housings
IR light range	20 meters
IR wavelength	850nm
IR beam angle	60°
IR light control.	CTRL (+/-) by camera
Input voltage	AC 90~240V
Operating current (constant)	1A
Power consumption	12Watt
Operating temperature	-10°C ~ +40°C
Storage temperature	-20°C ~ +60°C
Dimensions	60mm (O.D) x 80mm (L) x 106mm (H)
Weight	1.5 kg

II Mounting & Cabling

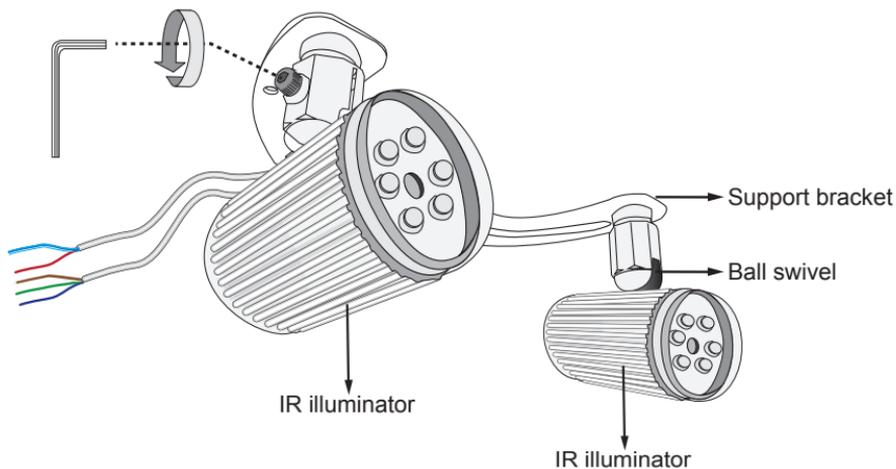
Preparing for installation:

1. Remove the IR illuminator from its package.
2. You should purchase power cords with adequate length.
3. A T20 hex wrench.



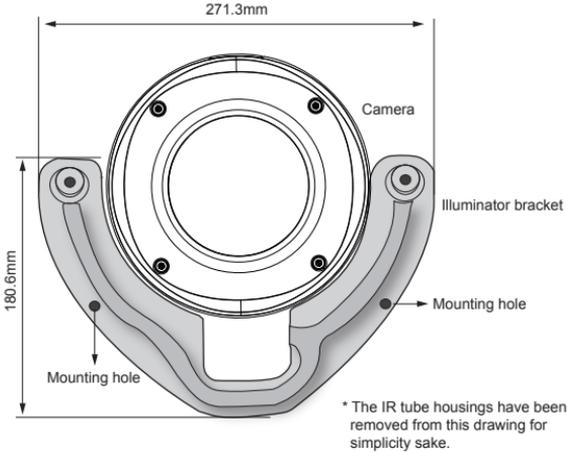
Assemble the IR illuminator with the Support Bracket. Use the included hex wrench to assemble the support bracket, bearing housing, and the ball swivel on the illuminators.

Use the included hex wrench to slightly loosen the ball swivel to adjust the shooting angle.

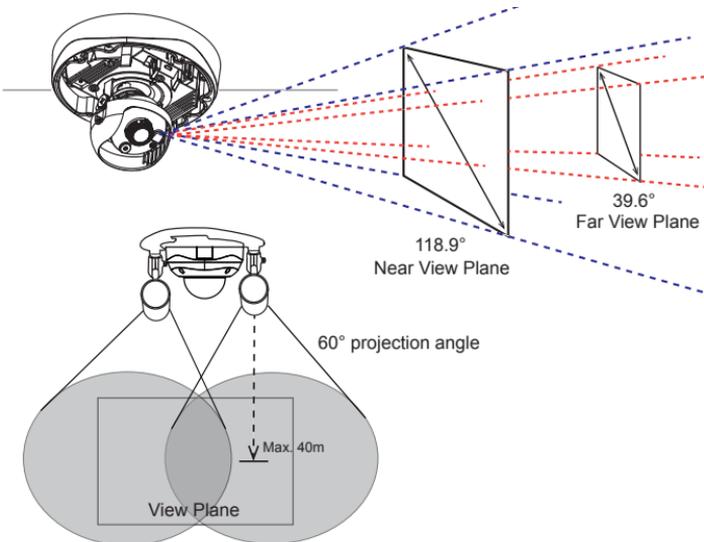


Install the IR illuminator behind your network camera, i.e., FD8362/FD8362E. Orient its shooting angle after you slightly loosened the ball swivel screws. Secure the illuminators' shooting angle by fastening socket screws on the ball swivels.

If you drilled a hole on the wall, you can pass power lines through the hollow of the illuminator bracket and then through the hole.

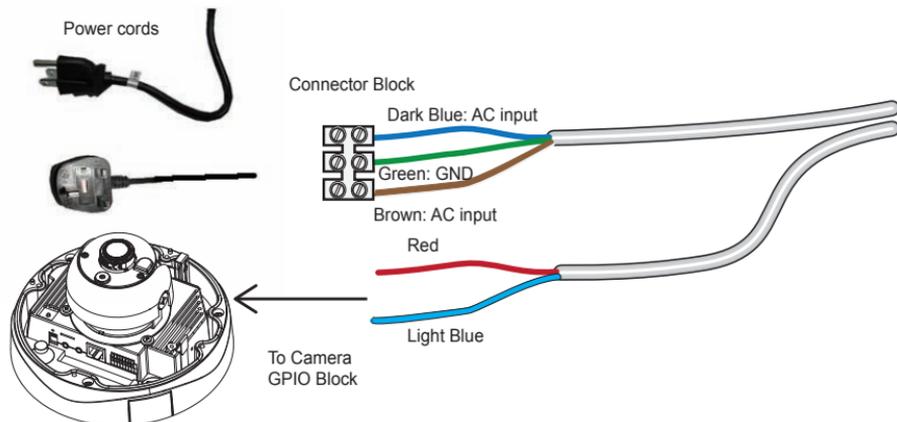


When planning the surveillance area, take into account the achievable distance. Optimal results can be achieved by setting up at night and observing the results on a management session screen. Adjust the illuminators' shooting angles so that the camera's field of view is correctly lit.



III Wiring

There are 5 wires with the illuminators: 3 for power connections and another 2 as control lines to the Digital outputs from a network camera. Refer to the diagram below for details.

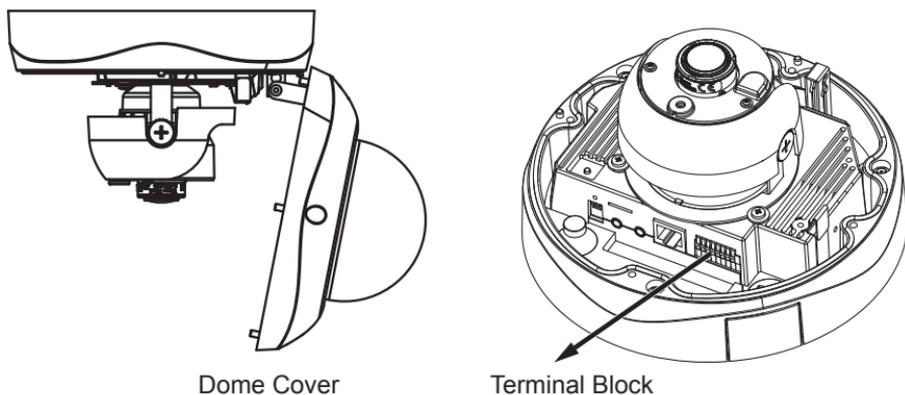


AC Power Connection

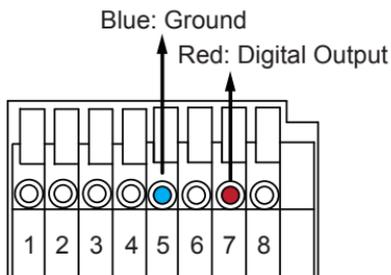
Power lines are connected to a power cord with a power plug. Use them to connect the power cords you separately purchased.

Control Line Connection

The DI/DO terminal block is accessed by opening the camera dome cover.



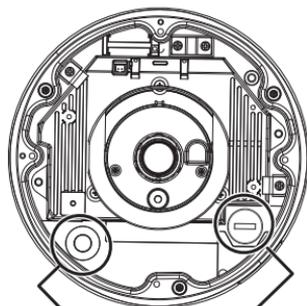
FD8362 GPIO Pinouts



1	DC 12V-
2	DC 12V+
3	AC 24V_2
4	AC 24V_1
5	DI- (GND)
6	DI+
7	DO-
8	DO+ (12V)

Shown above is the network camera's General Purpose IO terminal block. Connect the IR illuminator's red and blue lines to pin7 and pin5 on the terminal block.

Top View

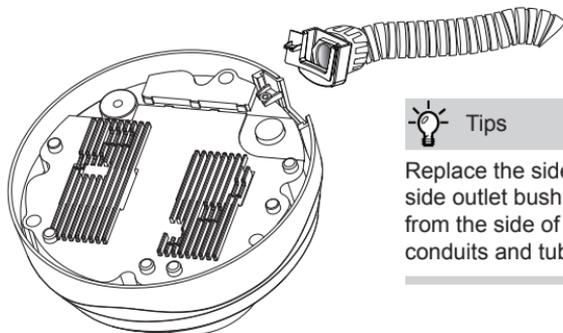


For Ethernet
Cable

For Power & IO Cables

Power and IO cables pass through a waterproof connector. All cables are user-supplied.

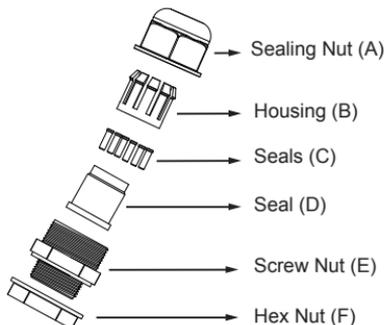
Remove the plastic cap on the opening for IO cables and replace it with the included waterproof connector.



Tips

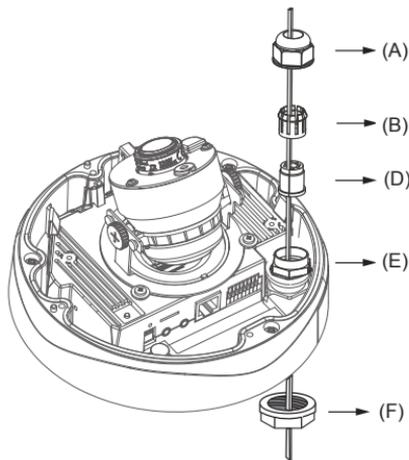
Replace the side opening cover with the included side outlet bushing if you want to route cables from the side of camera. The 1/2" protection conduits and tubing are separately purchased.

Waterproof Connector



● Assembling Steps

1. Disassemble the components of the waterproof connector into parts (A) ~ (F) as shown above.
2. Place the screw nut (E) on the Power and GPIO opening.
3. Feed the power cables through the waterproof connector (F --> E --> D --> B --> A) as the illustration shows. Then connect the power cables to the power source. Note: There are 8 holes on the seal (D), and the widest holes with a crack on the side are specific for power cables.
4. If you have external devices such as sensors and alarms, feed the cables through the waterproof connector (F



--> E --> D --> B --> A) as previously described. Refer to the pin definition to connect them to the general I/O terminal block. Note: The recommended cable gauge is 2.0 ~ 2.8 mm.

5. Push the seal (D) into the housing (B).
6. Insert the seals (C) into unused holes on the seal (D) to avoid moisture.
7. Secure the sealing nut (A) tightly and hex nut (F) from the bottom of the camera.

IV IR Configuration on Camera

To configure the IR-related settings in camera firmware:

1. Open a browser management session according to your QIG (Quick Installation Guide).
2. On the main page, enter **Configuration > Advanced mode > Media > Image** (General settings) > click on a tab at the lower screen to open **Day/Night settings**.
3. Select the checkbox in front of "**Turn on external IR illuminator in night mode**." Click **Save** to preserve your setting.

Once the configuration is done, the network camera will automatically turn on the illuminator when its light sensor detects low-light conditions, e.g., when the night falls.

Day/Night settings

- Switch to B/W in night mode
- Turn on external IR illuminator in night mode
- Turn on built-in IR illuminator in night mode

IR cut filter:

Auto mode

Light sensor sensitivity:

High

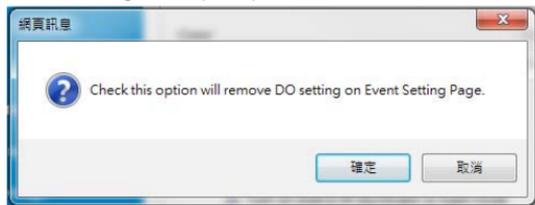
Save



NOTE:

If the external IR illuminator setting is enabled, all DO-related settings you previously configured in the Event configuration will be erased.

Since only one pair of digital output lines are available, once the IR illuminator is enabled, the other Digital output options will be disabled.



DI and DO

Digital input: The active state is **Low**; the current state detected is **High**

Digital output: The active state is **Grounded**; the current state detected is **Open**

Since the DO has been occupied by the external IR illuminator, this option cannot be configured currently.

Save

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