COGNEX

COGNEX® Industrial Cameras

Getting Started

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Natick MA 01760

CE

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CIC Camera Series

This guide applies to all Cognex CIC GigE Vision cameras. The *User's Manual For GigE Cameras*, installed with your Cognex VisionPro software, includes installation instructions.

For details on how to connect your GigE Vision cameras to your production environment, refer to the *PC Vision Wiring Guide*, installed with your VisionPro software and available from the **Start** menu.

For information on how to configure and use these cameras in your vision application, refer to the *GigE Vision Cameras User's Guide*, installed with your VisionPro software and available from the **Start** menu.

Contacting Cognex Customer Support

http://www.cognex.com/Home/ContactUs.aspx

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Precautions

NOTICE
Lens thread length is limited.
All cameras are equipped with a plastic filter holder located in the lens mount. The location of this filter holder limits the length of the threads on any lens you use with the camera. If a lens with a very long thread length is used, the filter holder will be damaged or destroyed and the camera will no longer operate. See the User's Manual for GigE Cameras for complete details about the thread length.

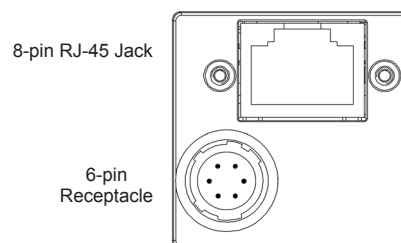| NOTICE |
| --- |
| Avoid dust on the sensor. |
| The camera is shipped with a protective plastic seal on the lens mount. To avoid collecting dust on the camera's IR-cut filter (color cameras) or sensor (mono cameras), make sure that you always put the protective seal in place when there is no lens mounted on the camera. |

To ensure that your warranty remains in force:

- If the label is removed and the serial number cannot be read from the camera's registers, the warranty is void.
- Do not open the housing and do not touch the internal components, as you may damage them.
- Do not allow foreign matter (e.g. liquid, flammable or metallic material) inside the camera housing. Otherwise, the camera can fail or cause a fire.
- Do not operate the camera in the vicinity of strong electromagnetic fields. Avoid electrostatic charging.
- Do not discard the packaging and transport the camera in its original packaging only.
- Avoid cleaning the surface of the camera's sensor if possible. If you must clean it, use a soft, lint free cloth dampened with a small quantity of high quality window cleaner. Because electrostatic discharge can damage the sensor, you must use a cloth that will not generate static during cleaning (cotton is a good choice).

  Do not use solvents or thinners to clean the housing; they can damage the surface finish.
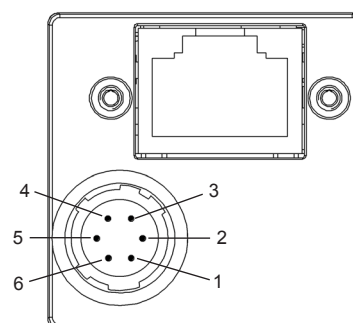
GigE Camera Interface

Each camera supports two connectors located on the back of the housing:

8-pin RJ-45 Jack

6-pin Receptacle

- An 8-pin, RJ-45 jack used to provide a 100/1000 Mbit/s Ethernet connection to the camera. The jack can also be used to provide power to the camera (Power over Ethernet (PoE)).
- A 6-pin receptacle for access to the physical input line and physical output line on the camera, and to provide power to the camera (if PoE is not used).

Pin	Designation
1	+12 VDC Camera Power
2	I/O Input 1
3	Not Connected
4	I/O Out 1
5	I/O Ground
6	DC Camera Power Ground

The following diagram labels the pins on the connector:

Contact your Cognex sales representative for information on cables that are compatible with your Cognex cameras.

NOTICE
Voltage outside of the specified range can cause damage. ■ If you are supplying camera power via (PoE), the power must comply with the IEEE 802.3af specification. ■ If you are supplying camera power via the camera's 6-pin connector, applying more than +13.2 VDC may damage the camera. Applying less than +11.3 VDC may cause erratic operation. An incorrect plug can damage the 6-pin connector. ■ The plug on the cable that you attach to the camera's 6-pin connector must have 6 female pins.

Environmental Requirements

Environmental Requirements During Storage

Housing temperature: -20 °C ... +80 °C (-4 °F ... +176 °F)

Humidity: 20% ... 80%, relative, non-condensing

Environmental Requirements During Operation

Housing temperature: 0 °C ... +50 °C (+32 °F ... +122 °F)

Humidity: 20% ... 80%, relative, non-condensing

Allow sufficient air circulation to keep the housing temperature during operation below +50 °C. Additional cooling devices are not normally required, but should be provided if necessary.