

# Panasonic Iris Reader

*The Biometric For Identity Management and Access Control*



safe and non-intrusive.  
higher security.  
easy integration.



**Panasonic ideas for life**



# Panasonic Iris Reader: Your Biometric Solution for Access Control and Identity Management

When you're looking to tap the inherent power of biometrics for more demanding access control applications, look no further than Panasonic Iris Readers.

## More accurate

Panasonic Iris Readers offer you the most accurate and precise personal identification technology in the biometrics field. The Panasonic Iris Reader has a false acceptance ratio of just 0.001% to 0.0001%F.\*



## Fast, 1.5-second recognition

Our advanced technology can identify a user in just 1.5 seconds. This means no needless delays or back-ups at entry points.

## Virtually impossible to spoof

Panasonic's recognition technology uses built-in countermeasures, making it virtually impossible to defeat by spoofing.

## No physical contact

Using the Panasonic Iris Reader requires no physical contact at all; users stand 12 to 15 inches away from the camera. This hygienic, contactless solution makes it ideal for clean rooms or other sensitive environments.



## Works with glasses, contact lenses.

Panasonic technology easily recognizes users wearing eyeglasses or contacts.\*\* The system can even recognize users wearing glasses and a

full-face safety shield.

## Safe and non-intrusive

For maximum safety and comfort of your users, the Panasonic Iris Readers do NOT use lasers of any kind. And NO bright or harsh lighting is involved in capturing iris images. The system uses low-power infrared illuminators, like those used in



household (TV and DVD) remote controls. All Panasonic Iris Reader systems fully conform to IEC60825-1 and ANSI RP-27.1-96 eye safety standards.

## Supports thousands of users

Panasonic lets you support just a handful of users to many thousands, with no loss of accuracy, speed, or flexibility. Panasonic Iris Readers have been deployed in all types of systems, large and small, including highly secured border crossings and registered traveler programs.



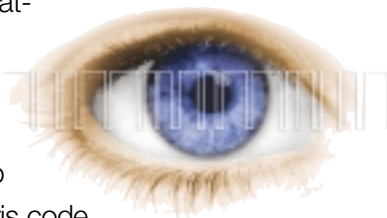
\*false acceptance rate is calculated at 1/1,200,000

\*\*patterned contacts will not be recognized

# How it Works:

## Based on individual iris patterns

Panasonic's iris reader technology makes use of the complex patterns in the iris: the delicate muscular structure that gives the eye its color. These intricate patterns are unique to each individual, and are even different in right and left eyes. Even identical twins do not have identical iris patterns. Since the iris is well protected and stable throughout life, individuals only need to be enrolled once; the iris code will remain constant.



## Simplifies Privacy Issues

The Panasonic Iris Reader system is ideally suited to environments with rigorous privacy policies.

- Panasonic's system lets you remain sensitive to users' privacy concerns. All data is stored in 3DES encrypted files.
- Iris Codes cannot be used to reconstruct images of any user's iris.
- You can easily configure the system to operate in conjunction with smart cards. The Iris Codes can be stored on the user's own card, and not in the system. Your users can essentially carry their biometric identification data with them.



## A one-minute enrollment

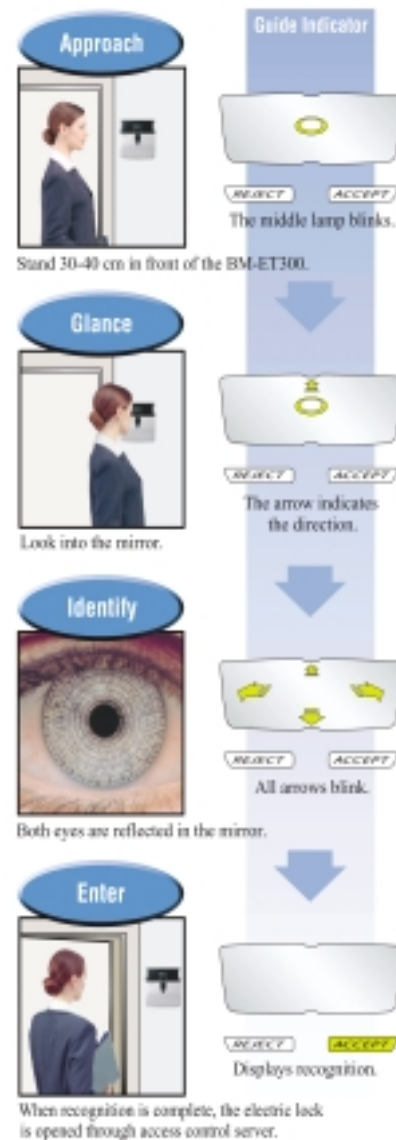
For each enrollee, the specialized Panasonic Iris Reader camera captures a video snapshot of the iris in each eye. An algorithm automatically records the characteristics at approximately 260 different points in the iris – and translates this into a unique and encrypted Iris Code™ data packet. Depending on how you configure your system, this code can be stored in the reader itself, stored in a network attached PC or server, encoded into smart cards, or even written into a barcode. The system does not need to store actual images of the iris itself – only the encrypted Iris Code template.

## One look does it

To gain entry to a secured area, the enrolled user simply glances into the Panasonic Iris Reader from a comfortable distance of 12 to 15 inches. Nothing touches the user at all. And there's no laser, no flash or strobe, no unusual lighting.

## Almost instant recognition

The Iris Reader camera takes video images of both irises, and the onboard processor instantly translates them into Iris Codes on the spot. To deny or permit access, the system compares the live capture iris code to the iris codes on file, or to the codes on the user's smart card. With a Panasonic Iris Reader, the entire recognition process takes just 1.5 seconds.





## Highly flexible configurations for any application

The unique architecture of Panasonic Iris Reader systems lets you support virtually any type of access control, verification, or large-scale identification application. Better still, the standards-based design of the system lets you seamlessly integrate with a broad spectrum of widely available EAC (Entry Access Control) systems and components. You can easily enhance existing security systems with Panasonic Iris Readers - and design systems with whatever mix of equipment and software integration the application demands.

### Panasonic Solution Partners:



## SIMPLE, CONVENIENT IDENTIFICATION MODE



### 1. IRIS-ONLY Identification Mode



In this configuration, access is controlled entirely by the Iris Reader. You can easily manage access without using any other token, PIN, or card of any kind.

- At the access point, the user simply glances into the Panasonic Iris Reader camera. The camera immediately translates the live iris image into an Iris Code.
- The on-board iris processor automatically compares the live Iris Code to a list of authorized Iris Codes stored either in the camera (up to 1,000 codes) or in a server.
- If there's a match, the camera signals your existing EAC system through a Wiegand data connection on the reader. And your EAC system can then permit or deny access based on its policy guidelines.
- In this "One to Many" Mode, no PIN or card is required. The reader performs an exhaustive search of the database in the reader or central data store to positively identify the user.

### Capacities:

Users: Camera can store up to 1,000 Iris Codes internally. The base system with BM-ES300 software handles up to 5,000 users. When used with a network attached server or PC, it can support users up to the limits of the hard drive and processor. When used with a smart card, there is no limit to the number of users. The users carry their own data on their smart cards. If you need to support more than 5,000 users, contact your Panasonic Sales Representative.

## HIGHER SECURITY VERIFICATION MODE



### 2. IRIS AND CARD OR PIN Verification Mode

1:1  
Mode

This configuration lets you support environments requiring “Two Factor Authentication” or “Strong Authentication.” It allows you to verify that the person presenting the card (or entering the correct PIN access code) is in fact that particular authorized user, and not someone using a stolen card or compromised PIN number.

- At the access point, the user must first present a valid card (and/or enters a valid PIN) – which activates the Iris Reader. The user glances into the Panasonic Iris Reader camera, which then immediately creates an Iris Code from the captured image.
- The card number AND the Iris Code are then compared to the tables stored in the reader – or in the attached server. The system then determines if the Iris Code is in fact associated with that card number.
- If there's a valid match of card ID and Iris Code, the reader signals the EAC through the Wiegand connection on the iris reader. Your EAC then permits access accordingly.


## ULTRA-SECURE INTELLIGENT VERIFICATION



### 3. IRIS CODE™ ON SMART CARD Verification Mode

1:1  
Mode

With this configuration you can integrate Panasonic Iris Readers with new or existing systems that rely on Smart Cards. The Iris Readers provide an extra level of security by verifying that the person presenting the proximity card is in fact the authorized user. Each user's Iris Codes are encoded directly into the card during the enrollment process. No Iris Codes need to be stored in the reader or the attached server.

- At the access point, the user must first present a valid smart card or proximity card to activate the Panasonic Iris Reader system. 
- After presenting the card, the user simply looks into the camera, which immediately produces an Iris Code from a live image of the iris.
- This live Iris Code is then compared to the Iris Code retrieved from the user's smart card. If there's a match, the camera signals the EAC system over a Wiegand or TCP/IP interface on the iris reader.

You can use the Panasonic BM-ESDK300 Software Development Kit to set up a system that creates smart cards from any manufacturer.

#### Capacities:

Users: Unlimited. No Iris Codes need to be stored in the camera, or in attached servers.

## Compatible with industry standard hardware and software

Panasonic makes it easy to integrate Iris Readers into security systems using a wide variety of EAC\* Systems and related equipment. Panasonic Iris Readers can operate with products from the providers listed below.

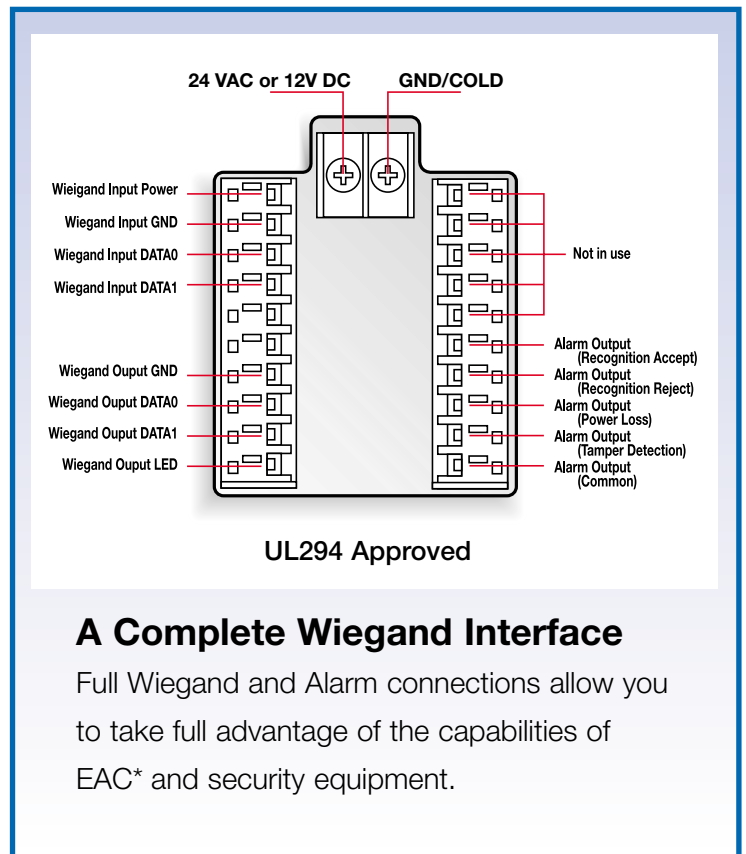
### EAC Manufacturers:



### Card Technology:



*Additional manufacturers and equipment are being added regularly.*



### A Complete Wiegand Interface

Full Wiegand and Alarm connections allow you to take full advantage of the capabilities of EAC\* and security equipment.

## User-friendly at the access point: Voice and Visual Guidance

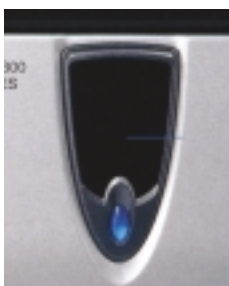
We simplified and streamlined the recognition process, so even users who are unfamiliar with the Iris Reader will have no difficulty at the access point. Panasonic Iris Readers use pleasant voice prompts and visual cues from behind a mirror to guide users.

Prompts such as “Please look into the mirror,” or “Please move to the right a little,” assure that iris images can be captured easily, accurately and quickly. The reader can provide guidance in 12 built-in languages.

\*EAC=Entry Access Control

## Built-in Color Camera

An integral color video camera in the Iris Reader can be used to capture a facial image of every user each time they attempt to gain access. DVR time-stamped images serve as a video log of each access attempt.



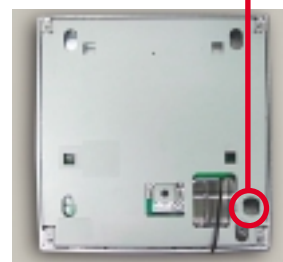
The color CCTV camera is entirely separate from the iris-reading cameras – and does not capture iris information.

## Tamper-resistant

Two tamper detection switches on the front and back of the unit are designed to activate if the cover is removed, broken, or otherwise tampered with. The Iris Reader will then immediately sound a local alarm, and transmit an alarm to the administrative server. At the same time, the Reader can be set to delete any stored iris data – thereby denying all access until the situation is resolved.



Tamper-resistant switches front and back



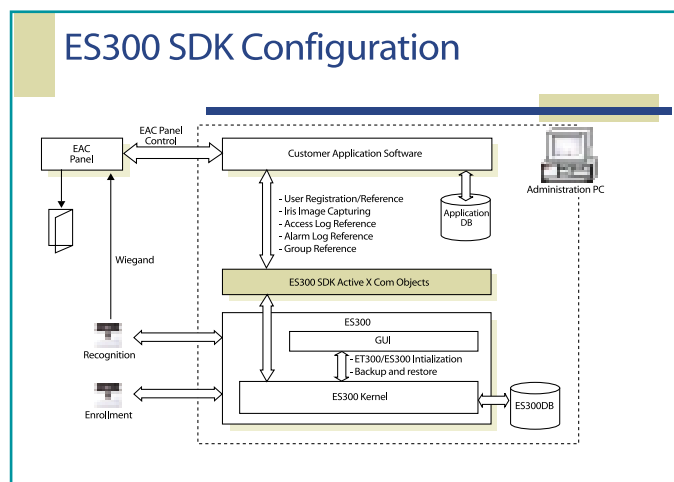
The built-in CCTV camera can also capture a video image of anyone attempting to tamper with the unit.

## Software Solutions for System Integrators

### Optional Software Development Kit (SDK) for the System Integrator

Panasonic Iris Reader systems are available with an easy-to-use administrative software (BM-ES300) that allows end users to:

- Enroll users
- Maintain your Iris Code database
- Automatically distribute iris data to individual readers
- Set and monitor preferences
- Receive alarms via e-mail
- Monitor Iris Reader status
- Maintain access logs



With the optional Software Development Kit, you can also create your own administrative front end for the system, or integrate it with an existing software application.

## Ask Panasonic

To learn more about enhancing your security systems with Panasonic Iris Readers, contact your Panasonic Dealer or Representative. Or visit us on the web at [panasonic.com/irisreaders](http://panasonic.com/irisreaders)



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