

**SecuGen USB fingerprint readers** are made with the industry's most rugged and advanced optical sensors using patented SEIR™ technology to give you the highest quality in fingerprint biometrics

## SecuGen Hamster™ IV

A FIPS 201 / PIV compliant high-performance and versatile fingerprint reader with Auto-On™

### Features

- FBI Certified "PIV Single Finger Capture Device"
- Compatible with SecuGen and third party MINEX Certified algorithms
- High-quality, rugged, maintenance-free optical fingerprint sensor with ultra-high 1200+ DPI native resolution (500 DPI effective resolution)
- Auto-On automatically turns on sensor when it detects a finger
- Hardened fingerprint contact area that's resistant to scratches, impact, corrosion and electrostatic discharge (ESD)
- Compact and ergonomically designed to work with any finger or thumb
- Integrated finger guide
- Removable, weighted stand
- USB connection



### What is Auto-On™?

*Auto-On is a feature that allows the SecuGen Hamster IV to automatically detect the presence of a finger when it's placed on the sensor. With Auto-On enabled\*, you can quickly and easily identify yourself, making fingerprint biometrics even more convenient to use.*

\* Auto-On is built in to the sensor but needs to be enabled by the software application

## Benefits of Using SecuGen USB Fingerprint Readers

SecuGen USB fingerprint readers are easy to install and use with software applications designed with fingerprint identification or verification functions that let your fingerprints act like digital passwords that cannot be lost, forgotten or stolen. SecuGen readers provide consistent performance and security for a growing number of applications and are supported

by a wide range of operating systems and computing environments.

SecuGen readers are backed by the industry's best quality guarantee and years of field use and proven performance under extreme conditions. This helps avoid the cost and inconvenience of field replacements of damaged units made by other sensor manufacturers.

When used for biometric authentication as part of an overall security program, SecuGen readers can help reduce the hassles of password overload, decrease the risks of security breaches, improve accountability and add true non-repudiation, all while making it more convenient and intuitive for almost any user.

## SecuGen Sensors are Known for their High Quality

### Durable

SecuGen fingerprint sensors are very rugged and feature a virtually indestructible sensor prism. From the sensor surface to the internal lens and electronic components, SecuGen sensors are designed to be strong and dependable to deliver consistent performance in indoor, outdoor and other harsh environments.

### Accurate

SecuGen sensors are very accurate thanks to a patented optic design that produces distortion-free images from which data points are extracted for matching. Higher quality images mean greater precision, less false rejection and acceptance, and better overall performance.

### Maintenance-free

Unlike semiconductor-based sensors and other optical sensors in the market, SecuGen sensors are made with a hard quartz-like material that needs no coatings but resists scratches, ESD, corrosion and other stress. The optic parts are tightly assembled so that if the sensors are ever dropped, there is no need for recalibration.

### Cost-effective

SecuGen designs, develops and manufactures its own fingerprint sensors, which are built to last. SecuGen guarantees the best product quality in the industry, which translates into savings by eliminating costly replacements and losses from system downtime.

## Typical Applications

SecuGen readers work with a large variety of software products available through 3rd party developers for applications such as:

- FIPS 201 Personal Identity Verification (PIV) program
- Government Identity Management programs
- PC, network, enterprise, or internet security
- E-commerce and electronic transactions
- Bank and financial systems
- Medical information systems
- Any password-based application ...

Visit our website for a list of compatible 3rd party software and our SDK Collection at [www.secugen.com](http://www.secugen.com).

## Specifications

### SecuGen Hamster™ IV

#### General

Dimensions (W x L x H)	27 x 40 x 73 mm (without stand)
Weight	100 g (without stand)
Operating Temperature	0° to 40° C
Operating Humidity	< 90% RH, noncondensing
Cable Length	1600 mm
Certification / Compliance	FCC, CE, RoHS, FIPS 201/PIV, FBI Image Quality

#### Optical

Sensor	FDU04™
Image Resolution	500 DPI $\pm$ 2 % (1200+ DPI, native)
Image Size	258 x 336 pixels (1280 x 1024 pixels, native)
Platen Size	16.1 mm x 18.2 mm
Effective Sensing Area	12.9 mm x 16.8 mm
Image Grayscale	256 shades (8-bit gray level)
Image Type	Non-lossy
Distortion (nonlinear)	0 %
Sensing Prism Hardness	750 Hk (6.8 Mohs)
Light Source	Red LED
Lifetime (typical)	60,000 hours
Ambient Light Condition	5,000 Lux

#### Electrical

Power Supply	Via USB connection
Operating Voltage	5 V $\pm$ 5 %
Current Consumption (max)	130 mA @ 5V
Current Consumption (operating)	90 mA @ 5V
Current Consumption (standby)	0.45 mA @ 5V
ESD Tolerance	> $\pm$ 15 kV

#### Communication

Interface	USB 2.0 (High speed)
Communication Speed (max)	480 Mbps
Image Capture Speed (continuous)	0.4 seconds
Image Capture Speed (snapshot)	0.80 seconds

#### Other

Operating Systems Supported	Windows Vista, XP, 2000, Me, 98 SE, Server 2003
Warranty	One year limited
Drivers included on CD	Also available at <a href="http://www.secugen.com/download">www.secugen.com/download</a>
Available Development Tools	SecuGen SDK Collection, featuring FIPS 201 / PIV compliant, MINEX certified Template Generator & Matcher Algorithms



#### What's Inside

At the heart of the SecuGen Hamster IV is the FIPS 201 / PIV and FBI Certified FDU04™ sensor made with SecuGen's ultra-high resolution OPP04-series optic module.



#### More Features of SecuGen's Next-Generation FDU04™ Sensor

- FIPS 201 / PIV and FBI Image Quality compliance including FBI "PIV Single Finger Capture Device" Certification
- Works well with dry, wet, aged, scarred or problematic fingerprints
- Highly durable and rugged - proven to resist electrostatic shock, impact, drops, scratches, extreme temperatures, humidity, electrostatic discharge, and contaminants (sweat, dirt, oil, etc.)
- Ultra-high 1200+ DPI native resolution, FBI-compliant 500 DPI effective resolution
- Patented Surface Enhanced Irregular Reflection (SEIR™) optical technology for clear image quality with high contrast, high signal-to-noise ratio, and practically no distortion
- High Sensor-to-Sensor Consistency for high accuracy when matching templates enrolled with different fingerprint readers
- Solid engineering and superior materials allows for use under extreme conditions
- Can be integrated into FIPS 201 compliant applications using SecuGen's MINEX certified Template Extractor and Matcher algorithms (via SecuGen SDK Collection) or using 3rd party MINEX algorithms
- Checks for and rejects latent fingerprints and 2-D fingerprint images (i.e. photocopies) <sup>1</sup>
- Encryption of fingerprint templates so they cannot be used to reconstruct fingerprint images <sup>2</sup>
- **Multi-Device Connectivity™**  
Allows multiple FDU04 devices to be connected to one computer at the same time <sup>2</sup>
- **Device Recognition™**  
Uses a programmable internal serial number to identify and differentiate FDU04 devices <sup>2</sup>

<sup>1</sup> Feature dependent upon software application used

<sup>2</sup> Option available with SecuGen SDK Collection



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