

Hamster™ IV

SecuGen Hamsters are the industry's most accurate, rugged, and affordable USB fingerprint readers. These high-performance, versatile readers feature advanced optical sensors engineered with patented SEIR™ technology to give you the highest quality in fingerprint biometrics.



Features

- Accurate, patented optical USB fingerprint sensor with 508 DPI resolution
- Auto-On™ to automatically detect the presence of a finger when placed on the reader
- Smart Capture™ for reliable scanning of dry, moist, aged, scarred and difficult-to-scan fingers
- Hardened optical glass platen that is scratch, impact, corrosion and electrostatic shock resistant
- Compact and ergonomic design works with any finger or thumb
- Integrated finger guide and removable, weighted stand
- Supports BioAPI, INCITS 378-2004, and ISO 19794
- Supports SecuGen proprietary, 3rd party, and MINEX Certified Template Extractor and Matcher algorithms
- Supports FIPS 201 and FBI Certified as "PIV Single Finger Capture Device"

SecuGen Provides the Highest Quality in Fingerprint Biometrics at Affordable Prices

Durable

SecuGen fingerprint sensors are extremely 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 stresses. 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 that 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.

Benefits of Using SecuGen Readers

Reduced password reset requests, decreased risk of security breaches, and improved accountability, all in a convenient and intuitive method for almost any user.

Easy to install and use with software applications requiring fingerprint authentication that lets your fingerprints act like digital passwords that cannot be lost, forgotten or stolen.

Consistent performance and security for a growing number of applications, with support for a wide range of operating systems, computing environments, and U.S. and international biometric standards.

Backed by the industry's best quality guarantee and over a decade of field use and proven performance under extreme conditions. This helps avoid the cost and inconvenience of replacing damaged units made by other sensor manufacturers.

Typical Applications

SecuGen Hamsters work with many kinds of applications to increase security including:

- Computer, network or internet security
- Bank and financial systems
- Medical information systems
- Labor and attendance tracking
- Any password-based application ...

Free SDKs

With a variety of SecuGen SDKs to choose from, SecuGen Hamsters are easy to integrate into almost any kind of application.

Request free SDKs or search for compatible partner software at www.secugen.com.

Specifications

Product Name	Hamster IV
Model Number	HFDU04
Fingerprint Sensor	
Optic Module	FDU04
Image Resolution	508 DPI (1000+, native)
Image Size	258 x 336 pixels (1280 x 1024, native)
Platen Size	16.1 mm x 18.2 mm
Sensing Area	12.9 mm x 16.8 mm
Image Grayscale	256 levels (8-bit)
Light Source	Red LED
LED Lifetime (typical)	60,000 hours
Imaging Speed (capture time)	0.4 - 1.2 seconds with Smart Capture
Electrical / Communication	
Interface	USB 2.0 Hi-Speed
Supply Voltage	5 V DC (via USB)
Maximum Current	130~150 mA
Physical	
Dimensions (W x L x H)	27 x 40 x 73 mm (without stand) 53 x 73 x 84 mm (with stand)
Weight	100 g (without stand) 165 g (with stand)
Cable Length	1500 mm
Operating Temperature	-20° to +65° C
Operating Humidity	90% or less RH noncondensing
Platen Hardness	750 HK
Other	
Warranty	One year limited
Supported Standards	ISO 19794, INCITS 378, BioAPI, FIPS 201
Compliance	FCC, CE, RoHS, FBI (IAFIS), GSA FIPS 201 APL
Supported Operating Systems	Windows 7, Vista, XP, 2000, 9x Windows Server 2008 R2, 2003 Java, Linux



What's Inside a Hamster?

At the heart of the Hamster readers are SecuGen's next-generation fingerprint sensors with advanced features including:



- **Auto-On™** that automatically detects the presence of a finger when placed on the reader for quick and easy authentication ¹
- **Smart Capture™** that captures high quality fingerprints from dry, moist, aged, scarred and difficult-to-scan fingers for greater accuracy and reliability ¹
- **High durability and ruggedness** with proven resistance to electrostatic shock, impact, drops, scratches, extreme temperatures, humidity, and contaminants such as sweat, dirt, and oil
- **Patented optical technologies for clear, accurate image quality** with high contrast, high signal-to-noise ratio, and practically no distortion using Surface Enhanced Irregular Reflection (SEIR™)
- **Reliable performance** even under challenging conditions and tough environments
- **Rejection of false fingerprints** such as latent prints and 2-D fingerprint images such as photocopies ²
- **Fingerprint data protection** with templates that cannot be used to reconstruct fingerprint images ²
- **Greater sensor-to-sensor consistency** for high accuracy when matching fingerprints enrolled with different fingerprint readers at different locations
- **Ease of integration** into many types of applications using a wide offering of free Software Developer Kits
- **Multi-Device Connectivity™** that allows multiple fingerprint readers to be connected to one computer at the same time ²
- **Device Recognition™** that uses a programmable internal serial number to identify and differentiate multiple fingerprint readers ³

¹ Auto-On and Smart Capture are built into the sensor but need to be enabled by the software application that calls for a fingerprint scan.

² Feature dependent upon software application used

³ Option available with SecuGen SDKs



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