

Futronic FS88HS

High performance fingerprint and smartcard reader

Bioidentidad Futronic FS88HS is a specialized biometric device that combines an FBI certified optical fingerprint scanner (FS88H) together with a contact smart card reader/writer.

Its capture quality is certified by the FBI according to FBI Mobile ID FAP 20 and FIPS 201 Personal Identity Verification (PIV) information processing standards for both desktop and mobile environments. Its large capture window obtains fingerprint images of 24.38mm (height) x 16.26mm (width), and is made of a special glass that is 14mm thick, resistant to scratches, liquid ingress and other types of stress. It has excellent performance for use with various skin types and environmental conditions, and has "live finger" detection.

The smart card reader/writer can work with any ISO 7816 card and is EMV certified. It can be used as a standard interoperable smart card reader/writer under various platforms, as it complies with the international PC/SC USB reader standard. It is ideal for biometric MoC (Match-On-Card) projects.

Biometric fingerprinting and identification for maximum security combined with the use of smartcards

GENERAL FEATURES

Bioidentidad FS88HS uses an advanced optical precision system with CMOS technology sensor, which meets the rigorous requirements of fingerprint image quality required by the PIV-071006 standard and certified by the FBI, with large active capture area size (28% more than FAP20).

It is compatible with the most popular software platforms on the market. Also, its connection with PC / laptop / netbook / PDA / tablet / smartphone is USB, which simplifies the installation and use process.

The FS88HS is a high quality, compact and robust, cost efficient, single fingerprint capture device with smart card reader/writer, ideal for applications in banking, notary, migration, ID cards, driver's license, elections, police, digital signature, PKI, network security, time attendance and any biometric or AFIS application where a reliable fingerprint combined with the use of chip cards is required.

ADVANCED LIVE FINGER DETECTION

The FS88HS has a unique infrared "live finger" detection technology, rejecting fingerprint imitations in silicone, gelatin and other materials. It is safe for everyone, including those with pacemakers, as it does not emit any electric shock or interference to the body.

BIOMETRIC SOFTWARE AND DEVELOPMENT KITS

Bioidentidad FS88HS has the drivers, libraries and application programming interface (API) for the management and capture of fingerprint images, including:

- Automatic fingerprint capture
- Fingerprint quality control according to NFIQ standard
- Fingerprint image compression in FBI certified WSQ format
- Advanced Live Finger Detection (ALFD)
- Red/Green LED indicator control

Bioidentidad can provide the application or software development kit (SDK) according to your project requirements, which may also include functions for biometric verification (1:1), biometric identification (1:N) and database integration, as well as compliance with the required international biometric standards (ANSI/INCITS 378, NIST MINEX, ISO/IEC 19794, ANSI/NIST-ITL 1-2011, among others).



**EASY
CLEANING &
DESINFECTION**

The FS88HS fingerprint scanner is internationally recognized for its high quality, which has been certified by the FBI. It also features patented live finger detection technology and an integrated smart card reader/writer.



PROVEN QUALITY

The high quality of the FS88HS is endorsed by internationally recognized security organizations such as the FBI, NIST, GSA, among others.



HIGH PERFORMANCE

The FS88HS will surprise you. The fingerprint capture is very fast and the fingerprint can be displayed in real time, everything with ideal quality.



MAINTENANCE FREE

Made with state-of-the-art electronic technology and no moving parts, it is designed to have an MTBF of more than 50,000 hours.
(*MTBF: Mean Time Between Failures)*

"The safety and reliability of our systems is driven by the most demanding needs of our customers, and our goal is to exceed their expectations."



INTEROPERABLE TECHNOLOGY

Because the Bioidentidad FS88HS complies with international biometric standards, fingerprints captured with it can be used in a variety of systems, platforms and AFIS, regardless of the vendor.



EASY INSTALLATION

The drivers are user-friendly and are available for the widest variety of operating systems.



PERMANENT TECHNICAL ASSISTANCE

Bioidentidad provides specialized technical assistance, accompanied by warranty and experienced biometric consulting.

Bioidentidad® provides high performance solutions for people identification and control.

With more than two decades of experience in research, development, manufacturing, consulting, project implementation, distribution and support, it is the preferred choice of biometrics experts.

COMPATIBLE PLATFORMS

We offer compatibility with the widest variety of platforms on the market, including:

- Windows 11, 10, 8, 7, Vista, XP, 2025, 2022, 2019, 2012, 2008, 2003 or higher, 32bit y 64bit
- Linux con kernel 2.4 or higher (x86 and ARM9 architecture)
- Android 3.1 or higher (with OTG or Host port)
- MacOS (10.5 or higher)

TRACEABLE

A unique serial number is factory programmed into each FS88HS, making each device traceable; which is extremely important for large-scale project management.

COMPATIBLE SOFTWARE

Due to the high quality of fingerprint capture, superior security, great durability and excellent level of compatibility, the FS88H is the recommended fingerprint capturer by a wide variety of biometric software brands, including Bioidentidad (BioCaptura, BioVerifica, etc.), Griaule (Fingerprint SDK, Biometric Suite), Id3, Innovatrics, NEC (AFIS, ABIS, etc.), Neurotechnology (Verifinger, Megamatcher) and more.

WARRANTY

Bioidentidad ca provide up to five (5) years of warranty.

TECHNICAL SPECIFICATIONS

- Sensor type: Optical CMOS with 14mm thick high durability glass prism.
- Live finger detection: Advanced Live Finger Detection (ALFD).
- Image resolution: 500 dpi, 256 gray levels.
- Image size: 480 x 320 pixels
- Scanner area: 24.38 x 16.26mm
- Scanner illumination: 4 infrared LEDs

- Image quality: FBI certified according to PIV and FAP 20 standards
- Smartcard standards: ISO 7816, PC/SC, certified EMV (American Express, Discover, JCB, MasterCard, UnionPay, Visa)
- Smartcard size: ISO 7816, ISO 7810 ID-1, CR80
- Smartcard voltage: 5V, 3V y 1.8V (ISO 7816 Class A, B, C) with automatic detection
- Smart card pins: 8-pin management (supports C4/C8.)
- Smartcard protocols: ISO 7816 T=0, T=1.
- Smart card communication speed: Read/write from 1743 bps to 305200 bps. PPS support
- Visual indicators: Red/green LED
- Communication interface: USB 2.0
- Power supply: via USB port
- Fingerprint sensor power consumption:
 - Active <900mW
 - Standby <200mW
- Electrostatic discharge resistance of the fingerprint sensor: contact 8KV, air 16kV
- Operating range: -10° to 55°C
- Dimensions: 65 x 94 x 49 mm
- Weight: 210 grams
- Cable length: 2 meters
- Technical standards:
 - FBI IAFIS Image Quality Specifications (IQS) Personal Identity Verification (PIV) Single Finger Capture Device
 - FBI EBTS F Mobile ID FAP 20
 - GSA FIPS 201 PIV-071006 IQS
 - EMV, ISO 7816, PC/SC
 - Microsoft WHQL
 - FCC, CE, RoHS
 - NFIQ, BMP, WSQ (IAFIS-IC-0110)
 - NIST MINEX, ANSI INCITS 378
 - ISO IEC 19794
 - RENIEC



The fingerprint obtained with the FS88HS is of such high quality that even the pores located on the finger ridges can be appreciated.

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