

# Futronic's FS26 USB2.0 Fingerprint Mifare Card Reader/Writer



## **Specification-general**

USB 2.0 compatible interface, plug and play device  
Support MS Windows XP/Vista/7/8/10/11 and Android  
With a 2 meter standard USB cable  
Size, 98 x 98 x 30 mm  
Weight, 200 gram  
Operation temperature: -10 to +55 Degree Celsius  
Supply voltage: DC 4.5-5.5V via USB port  
ESD contact - 8KV and air discharge - 16KV, no permanent damage

## **Specification-Fingerprint scanner**

Fingerprint scanning window size is 16x24mm  
Image resolution is 320x480 pixels, 500 DPI  
8 bit grey levels  
Light source: Infrared LED  
Raw fingerprint image file size is 150K bytes  
With Live Finger Detection (LFD) feature  
Can store a maximum of 100 fingerprint  
FAR=0.000001 and FRR=0.01

## **Specification-Mifare card reader/writer**

Compliant with ISO14443A  
Carrier frequency: 13.56MHz  
Support standard Mifare key encryption  
Support both 1KB and 4KB Classic Mifare cards  
Card sensing range: Min. 10mm  
Card read/write time: < 0.5sec(also depends on the data size)  
Two color LED for Mifare card reader/writer status indication

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## **Major features and benefits:**

Futronic's FS26 USB2.0 Fingerprint Mifare Card Reader/Writer combines a fingerprint scanner and an ISO14443A compatible Mifare card Reader/Writer into one device.

FS26 is a standalone fingerprint matcher and can do "Match on Device". Under the control of PC via USB interface, it captures a fingerprint image, extracts the minutiae (fingerprint characteristics) and then stores to its internal memory. The stored fingerprint can be used to match with a freshly captured fingerprint and matching result is sent to PC for authentication. Its internal memory can store up to 100 fingerprints.

FS26 can handle ISO14443A compatible Mifare card and has all the necessary functions to support both 1KB and 4KB Mifare cards.

With a combination of fingerprint "Match on Device" and ISO14443A Mifare card Reader/Writer, FS26 is perfect for real two-factors authentication, what you own(finger) is matched with what you carry(Mifare card). It is because fingerprint data can be stored to Mifare card and at the time of authentication:

1. User shows the Mifare card and FS26 read the fingerprint data stored in card.
2. Then put finger and FS26 scans the fingerprint image.
3. FS26 matches the scanned fingerprint with the fingerprint data read from the Mifare card.
4. The matching result is sent to PC for authentication

The use of fingerprint recognition for logical and physical access control has been controversial. It is because the fingerprint data must be stored somewhere in system for authentication. This may infringe the privacy of users in some cases. And FS26 is the answer to this problem as it can identify an individual using fingerprint without storage of fingerprint data in the system.

FS26 can also be used together with Fingerprint authentication Server (FAS) which is Futronic proprietary software running on MS Windows for user & fingerprint database management, access and attendance control.

A serial port is designed inside FS26. This is used to connect with Futronic's FS30 RRU (Remote Relay Unit). With FS30 and FS26 connected to an Android device, they can form a standalone Physical Access Control System or a Time and Attendant System. An optional wall mount is available to install FS26 on wall in this case.