

# Kimaldi FingerVein



- **Vascular Biometrics** finger identification
- **Biometric Pattern** from internal finger vein tree
- **Access and Time & Attendance** control with advanced features
- **Multiple finishes** and customization options
- **High Security** environment adaptation (stainless steel outer box and detachable electronic data & Relay modules)
- **Goes with** proximity 125kHz and Mifare.
- Also **eDNI** soon.





# Kimaldi FingerVein

The most **secure**, **reliable** and **Solid Biometric** solution for the most **flexible Access and Time & Attendance Control Devices**

## Vascular Identification

Kimaldi FingerVein system uses finger vascular pattern to identify different users.

Vascular identification provides you with a high number of benefits over other biometric technologies so you can extend your current security applications even under the most difficult working conditions. Some of Kimaldi's FingerVein benefits are:

- It uses internal vascular pattern so it is useful when the finger is dirty or become eroded.
- Easy and accurate system. Recognition issues are lower than in a whole hand recognition solution because there is no need to place the finger as it was previously registered.
- Minimizes contact between terminal and user.

## Success references

Kimaldi's Biometric FingerVein technology is very renowned application in several Japanese financial institutions. 65% of the Japanese Banks and some cash dispensers use the same system for identification, i.e. Japan Post, Mizuho Bank, Sumitomo Mitsui, and Daisan Bank amongst many others.

FingerVein reader used for Kimaldi solutions is compact and the biometric pattern only takes around 500 bytes, so we can offer a 1:1 and 1:N recognition algorithm.

## Kimaldi's Terminals

Kimaldi's range of terminals is based on the powerful Kimaldi ID32 platform developed by Kimaldi Electronics.

The hardware is controlled by a 32 bits RISC processor and includes IP and RS-232 connectivity within the board.

Kimaldi FingerVein solution offers a powerful solution for access and time & attendance control, providing a high flexibility in terms of configuration, communication and performances with the state of the art technology.



## Overview

High performance Access and Time & Attendance control device. It provides a high flexibility in terms of connections and local and remote peripherals configuration. It is available in two versions:

- Offline version: Works with and without network connectivity.
- Online version: Real time control by a remote host.

Kimaldi FingerVein offers a huge flexibility thanks to the different manufacturing options and also because of both offline and online versions. It is also available with connection to a wide numbers of readers so it is fully customised to customer requirements.

## System Features

- > SDK tools available for programmers.
- > Powerful and advanced finger vascular biometric recognition algorithm 1:N and 1:1 combining vascular pattern with RF ID.
- > Removable Electronic board allowing keeping the database and the relays in a safe place so just the input device is available for users. Ideal solution for high security environment.
- > Antitamper detection for non authorised handling.
- > Integrated RS-232 and TCP/IP (UDP) connection plus Wi-Fi through a convenient adapter converter. It allows building terminal networks.
- > **High reading accuracy** with a low error rate: **FRR** (False rejection Rate) less than 0,01%; **FAR** (False Acceptance Rate) less than 0,0001%; **FTE** (Failure to Enrol) 0,03%.
- > Up to 1.000 vascular pattern memories. Up to 1.000 users with just one vascular pattern. The device can handle up to 10 vascular patterns (fingers) per user.
- > **Offline version:** Non volatile memory for saving logs, events are sent out in real time. Weekly timetable configuration, daily shifts (up to three different blocks), bank holidays, special and exception codes, customized messages (allowing communicating useful information to each user). **Features:** A ntipassback, upgradeable firmware, different user set up, capacity control, timetable balance control, intrusion alarm, compatibility with other devices and protocols with previous versions, and other features.
- > **Online version:** Maximum flexibility as the devices is controlled by the remote software in real time.
- > Stainless steel & OEM finish (ideal for mechanical integration). Office box finish coming soon.
- > Our deep knowledge of this technology allows us to design special version for projects (minimum quantity required).

## Regular Applications

- > Ideal for access, production and time & attendance control solutions.
- > Vascular identification is perfect where the highest security is required and under working conditions.
- > High security buildings such as corporate offices, financial sector, public institutions, etc.
- > Useful for secure working conditions like chemical industries, factories, car repair shop, mines agricultural business and others.

## Technical Specifications

Biometric sensor	Vascular finger sensor (Finger Vein).
Identification / Biometric verification	1:N; 1:1.
Maximum vascular patterns 1:N offline / online version	1000 / 1.000.
Maximum vascular patterns 1:1 offline / online version	1000 / unlimited.
Maximum users number (1 pattern per user)	1.000.
Maximum Loggings / exceptions number	15.000 / 255
Maximum number of customizable messages	As much as users
Number of relays	4 relays (optional up to 6)
Digital inputs	4 digital inputs
RS-232	9600, 19200, 38400 bps integrated on board
UDP, TCP/IP	Integrated on board
Wi-Fi	Optional module
Offline / Online programming	OCX / ASCII lays
Timetable balance	Via software
Remote module control	Available for relays, readers, display and keyboard
Firmware	Upgradeable via RS-232 or TCP/IP
Operative temperature / Humidity	5°C to 45°C / 15% to 85% relative
Max. environmental luminosity	2300 lux
Environmental dust	0.15 mg/m2
Stainless steel box	Estimated 14,8h x 20,7 x 5,9 (8,2) cm / 1,8kg.
Office box	16,5h x 22,1 x 6,1 cm. / 700 gr.



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