

# Your hand is the most secure key

## Biometrical Palm Vein Authentication



ACCESS CONTROL



TIME REGISTRATION



PAYMENT SOLUTION

## Palmki is an all in solution for all your applications



Universities & Schools



Smart cities



Events & Festivals



Hospitals



Cruises



Hotels



Bars & Restaurants



Airports



Governmental Institutions



Companies & Offices

## Palm Vein Advantages

**Palm Vein authentication** presents strong benefits when compared to

**Fingerprint** Can be reverse engineered for forgery (using silicones). Poor recognition when finger has scars or burns. Needs physical contact.

**Iris/Retina** Intrusive method. Not easy to install (height of device for tall/short people, support for head,...). Less intuitive and uncomfortable for users. Slow authentication time.

**Face Recognition** Tedious registration phase (Face recognition needs to be repeated when glasses, beard, mask,...) The poorest FAR & FRR rates compared to all biometrics method (confer table).

## Palmki technical specifications

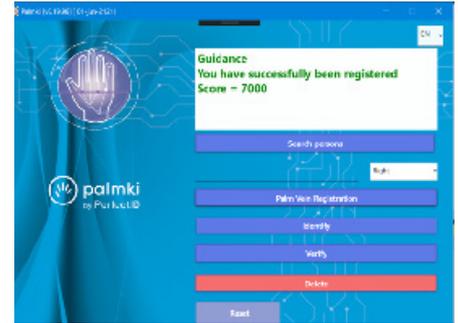
Authentication method	FAR% =	IF FRR% =
Face recognition	~ 1,3	~ 2,6
Voice recognition	~ 0,01	~ 0,3
Fingerprint	~ 0,001	~ 0,1
Finger vein	~ 0,0001	~ 0,01
Iris/retina	~ 0,0001	~ 0,01
<b>Palm Vein</b>	<b>&lt;0,00001</b>	<b>~ 0,01</b>

**FAR (False Acceptance Rate)** used to identify the security level of a biometric system.  
**FRR (False Rejection Rate)** benchmark for describing the usability of a biometric system.

# Software and devices

## Palmki Software

Our Palmki software will automatically match the hash code with the user's hand. Our software is connected with APIs. This means it can be build on existing systems, hardware and software. The software will show you the status of the registration process and will communicate if the authentication is approved or not.

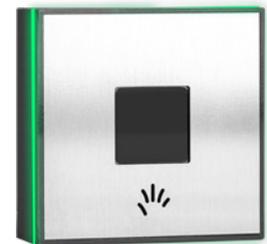


## Palmki Registration Module

This registration unit is pre-modeled, so it guides each hand immediately into the right direction. It assures an intuitive procedure that smoothens the registration process. The unit will scan the hand palm vein pattern, encrypt it into a hash code and allow authentication with the Palmki authentication module afterwards.

## Palmki Authentication Module

This unit will match the presented hand with the hash code that was registered with the Palmki registration unit. The design is stylish and strong, and can be customized. When holding the hand before the authentication module, the user will see a blue ("hand is scanned correctly"), yellow ("hand could not be scanned"), green ("authentication approved") or red (authentication not approved") light.



## Palmki PCB Unit

The PCB unit is the heart of each Palmki solution. This engine makes sure each hand is recognized fast and accurately. Each PCB unit can be delivered custom-built. That way Palmki is connectable with every hardware or software, and this in every mechanical language.

## Palmki Wiegand

This device triggers a mechanical action. The Wiegand module is connected with the PCB unit and will react to the information given during the authentication process. Once the authentication is approved, the Wiegand device will make it possible to automatically open the door, locker, gate,...

