Who is BioSec?

BioSec Group Ltd. is a biometric security company, which develops palm vein recognition based solutions. We ensure customised solutions in the field of (biometric) mass authentication, physical and IT security with almost ten years of experience on a wide range of markets.

What is palm vein recognition?

Palm vein recognition is one of the most advanced biometric authentication solutions. As the name suggests, it measures the vein structure within the hand, which is absolutely unique for everyone – even identical twins have different vein templates. As the veins are below the skin, the palm vein template cannot be copied, stolen or reproduced as in case of other technologies, which measure surface characteristics (e.g. fingerprint, face recognition). As a result, palm vein recognition is an ideal solution for a wide range of markets, either for security or convenience reasons.

How palm vein recognition works?

The sensor within the biometric device works by the emission of infrared light, which is absorbed by the red blood cells in the veins. As a result, the vein structure within the hand becomes visible to the infrared camera and an encrypted code is created from the recorded vein patterns.

How secure is palm vein recognition?

We identify the vein structure within the hand with maximum ~5 000 000 reference points, ensuring a highly reliable solution with a very low error rate.

What about data security?

All BioSec systems have two databases. One includes the user ID and the HASH code and the other includes personal data and the user ID, therefore the personal data and the biometric data are never in the same database.

Is palm vein recognition GDPR compliant?

✔ YES. Since the palm vein template is an encrypted HASH code, which cannot be reverse engineered, therefore the vein pattern is not a highly sensitive data, just a standard personal data. In addition, all BioSec systems have 2 databases, to keep personal data and the biometric data separated (these are never in the same database).

Where can palm vein recognition be used?

Basically anywhere, where users need to be identified. Just think about how many times you need to identify yourself in a day. From accessing office buildings to taking the subway, paying with card, getting into a concert or sports event are only a few examples where secure and convenient identification is essential.

What is my biometric pattern actually?

The biometric pattern is NOT a picture but an encrypted code. When placing your hand above the vein sensor, an encrypted code is created, which is basically a very-very long sequence of characters.

Is palm vein recognition dangerous to my health?

✘ NO. The vein sensor uses near-infrared light (similar to the remote controller's), which is completely harmless to health. In addition, the sensor within the device is only supplied with power via a USB cable.

Is it possible to steal my palm vein template?

✗ NO. As the vein structure is not visible by looking at the hand or touching a surface, the palm vein pattern cannot be copied, reproduced, stolen or collected without your consent.

Does the operator have access to my biometric data?

✗ NO. The operator has no access to the biometric data. The system performs the identification automatically. When registering, the biometric data comes in a database, where the operator has no access. The operator sees only the personal information.

Is it a problem if I have a hand injury?

✗ NO. Since veins are internal, surface injuries on the palm do not influence the identification quality.

How can I get further information?

? By contacting publicaffairs@palmsecsolutions.com.