

JustPass

Next generation biometric access control solution
for Micro- and Small-Enterprises

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Highest security level



Ease of use



Convenience



General information

Who is BioSec?

BioSec Group Ltd. is one of the leading R&D companies in the field of biometric technology. BioSec develops palm vein recognition based solutions, providing the highest level of knowledge and expertise for its clients. We ensure customised solutions in the field of biometric mass authentication, physical and IT security with almost ten years of experience in development, sales, installation, operation and support.

What is biometric authentication and palm vein recognition?

The biometric authentication system is a technology, which measures and records the individual physical characteristics of a body and uses the data for personal authentication. In our case, the palm vein scanner measures the vein structure within the hand in 5 000 000 reference points by the emission of infrared light. In opposite to other biometric technologies, which use surface characteristics (e.g. fingerprint), the vein structure is an inner characteristics, which is not visible from the outside, thus it cannot be copied, reproduced, stolen or used for secret data collection. Surface injuries on the palm do not influence the identification quality.

Main benefits of using BioSec's biometric technology:

-  No need for RFID cards, chips, bracelets, passwords
-  The vein ID cannot be stolen, copied, reproduced
-  BioSec solutions are easy to integrate into existing systems via standard interface
-  Compatibility through standard interfaces
-  Cost effective solutions

What is JustPass?

JustPass is a palm vein recognition based biometric access control solution for Micro- and Small companies, who do not want to compromise when choosing their security system but do not wish to invest into serious background infrastructure. JusPass answers all their security needs and offers an off-the-shelf, cost-effective alternative to traditional RFID systems without the security risks and inconveniences. JustPass is simple to use, easy to install but has all features of our complex access control system, the GateKeeper. In addition, the user only needs his/her hand for authentication, which takes only ~1 second. By using JustPass, there is no need for server installation, firewall configuration or large network infrastructures etc.

JustPass in a nutshell



Highly secure



Simple & fast
installation



Off-the-shelf
biometrics



Simple to use



Fast
authentication



User-friendly

Main benefits of using JustPass:

- Highest security in identification (FAR 0,00008%, FRR 0,01%), convenient next generation biometric technology
- Cost-effective solution
- Off-the-shelf product
- No need for server installation
- No need for firewall configuration
- No need for network building
- 1:n authentication
- ~1 second biometric authentication time
- The person needs to be registered in one system only once in a lifetime
- 256-bit encryption, also encrypted data flow (2048 bit SHA 2)
- The system can handle up to 8 doors and maximum 150 users, in case more is needed, upgrade to GateKeeper is necessary

Technical parameters

Technical details of JustPass:

Used OP system at the controller: Windows 10 IOT 64 bit

OP system for AdminSuite: Windows 8 or higher, 64 bit, minimum 8 Gb memory

Database: PostgreSQL

Stand alone: The system can work also offline

Necessary hardware: Triple1 terminal (biometric reader), PS Guide (registration desk terminal), Rector (controller)

Dedicated router

Maximum number of readers in one system: **8**

Maximum number of doors handled by one system: **8**

Maximum number of controllers in one system: **4**

Maximum number of admin stations: **2**

Main elements:

Hardware

- **Triple1:** biometric reader terminal
- **PS Guide:** registration desk terminal
- **Rector controller:** access point control device
- **Router** (provided by customer or end user)

Software

- **Controller software** (comes already preinstalled)
- **AdminSuite:** system/user management, registration graphical user interface

The **Triple1** is the only device installed outside of the unsecured area. It is connected to the local controller, via one USB and one CAT5 cable. The maximum distance between the biometric reader and the controller is 5 meters but can be extended to 25 meters with additional hardware.

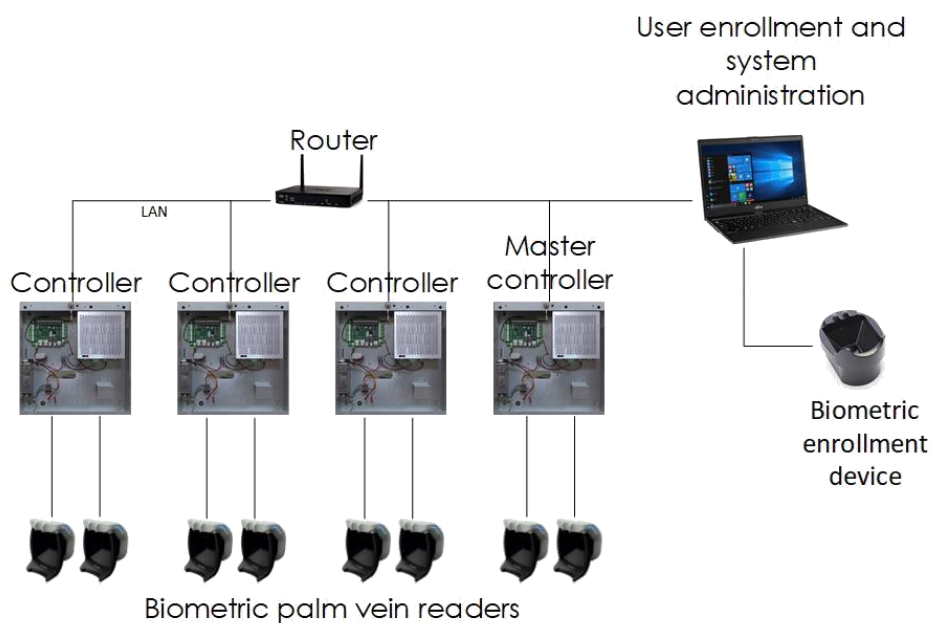
The biometric reader does not contain any panels, which would make it possible to manage/sabotage the access point via biometric reader.

Security classification of the technology:



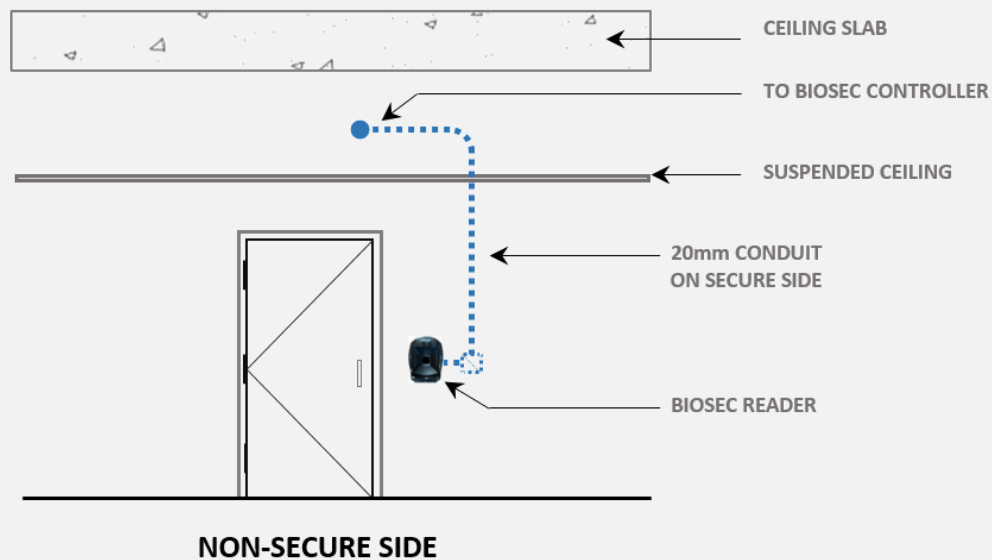
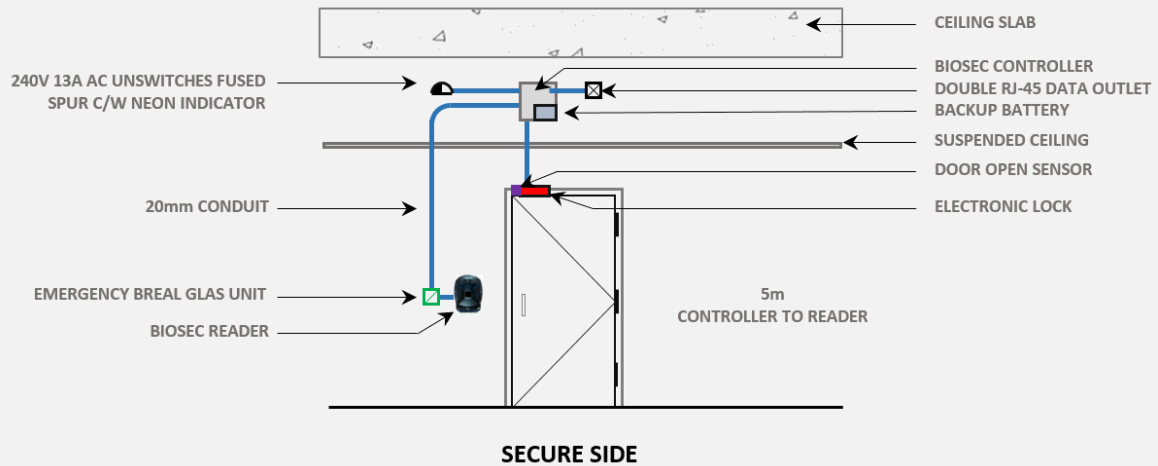
The palm vein recognition based technology and the authentication procedure meets the standards of the Common Criteria Classification, which is the highest technical certificate concerning IT security. The qualification procedure examined the life detection, authentication quality, data protection functions.

System architecture



Each controller contains the matching software and the client software. During installation process it can be easily configured which will be the central controller (in case of multiple controllers in one system). The controllers are connected with each other via LAN.

DOOR EQUIPMENT LAYOUTS (LOCAL CONTROLLER)



Industry standard components can be connected to the controller as peripherals such as magnetic locks, push-to-release buttons, distress buttons, etc.

Security features

All components of JustPass are protected by latest security mechanisms. JustPass uses a three-level encryption (biometric template, communication, database). BioSec software do not use passwords, the software can be accessed only via palm vein recognition.

Possible devices for use

Access control devices for indoor environments

Triple 1 – modular biometric terminal



System components

Triple1 Biometric Terminal

The Triple1 is the biometric reader terminal specialized on 1:n identification. It is connected to the local controller via one USB and one CAT5 wire. The maximum distance between the Triple1 and the controller is 5 meters but can be extended to 25 meters.

The Triple1 has a built-in sabotage protection. In case of an alarm, the terminal will be cut off automatically from the controller and there is no possibility to get into the controller via the terminal after that.

The unique feature of the Triple1 is that it can be installed in three versions: contactless, with finger rest or complete hand rest. The terminal can be surface mounted or sunk into the wall.

Technical specifications of the Triple1

Size of the Triple1:

Contactless version:	120*120*44mm (H*W*D)
Triple1 with finger rest:	134*124*108mm (H*W*D)
Triple1 with hand rest:	162*126*124mm (H*W*D)



Main characteristics:

↔	Material	polycarbonate
↔	Colour	contactless module and hand rest is black, finger rest is light grey but can be modified optionally
↔	IP	Indoor IP 41
↔	Power supply	via CAT5 and USB (max. 0,5 A)

Environment

↔	Temperature	0 - 60 degrees
↔	Density	10-90% relative non-condensing humidity
↔	Sunlight	direct sunlight to be avoided, sun cover can be provided
↔	Light indicator	RGB LED's on both side of the terminal
↔	Audio indicator	internal buzzer
↔	Sabotage protection, in case of signal, the controller cuts of the terminal	

PS Guide Biometric Registration Device

The PS Guide is a biometric reader terminal, specialized in user enrolment processes. The intuitive design allows users to optimally position their hands for scanning. PS Guide is perfect for high traffic locations, since it has been designed for years of daily contact by hundreds of users and it is easy to install and maintain.



Technical specifications of the PS Guide

Size of the PS Guide:

➤	Width	140 mm
➤	Length	170 mm
➤	Depth	110 mm
➤	Weight	251 g

Main characteristics:

➤	Material	Polycarbonate
➤	Color	Black
➤	IP	Indoor IP 50
➤	Power supply	Via USB
➤	Environment	Indoor
➤	Temperature	-20 - 60 degrees
➤	Density	10-90% relative density
➤	Sunlight	Direct sunlight to be avoided

Rector Controller

The controller unit manages two biometric readers. The controller contains one industrial PC designed for 0-24 operation and one I/O module for management of two access points.

The local controllers are communicating with each other via encrypted and certified TCP/IP protocol and minimum CAT5 network. The system can function in offline modus.



Technical specifications of the Rector

Size of the Rector:

➡	Width	375 mm
➡	Length	385 mm
➡	Depth	110 mm

Main characteristics:

➡	Material	metal
➡	Color	white
➡	Power supply	~230 V / 50 Hz or ~115V / 60 Hz
➡	Power consumption	12V, 3A (UPS can be provided)
➡	Sensors	tamper, door opening, fire detection
➡	I/O module	8 output ports, 2 USB input and output ports, 6 input ports, 6 relays
➡	Offline modus	yes
➡	Authentication time (1:n or 1:1)	~1 second
➡	Offline identification time	depending on number of users in database
➡	Number of stored logs	500 000 (default setup, can be increased)

Light Controller

The controller unit manages two biometric readers. The controller contains one industrial PC designed for 0-24 operation and can manage one access points.

The local controllers are communicating with the servers via encrypted and certified TCP/IP protocol and minimum CAT5 network. The system can function in offline modus, when the connection to the server is interrupted for any reason. In this case, the identification process will be taken over by the local micro PC in the controller.

Technical specifications of the Light Controller

Size of the Light Controller:

	Width	to be confirmed later
	Length	to be confirmed later
	Depth	to be confirmed later

Main characteristics:

	Material	metal
	Color	white
	Power supply	~230 V/ 50 Hz or ~115V / 60 Hz
	Power consumption	12V, 3A
	Sensors	sabotage, door opening,
	I/O module	1 output ports, 1 input ports, 1 relays
	Offline modus	yes
	Authentication time (1:n)	~1 second

FOR INTERNAL USE ONLY!

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BioSec Group Ltd. is a dedicated developer of innovative security solutions based on palm vein recognition. BioSec is specialized in biometric mass authentication, logical- and physical access control solutions, ensuring highly secure, simple to use and convenient solutions in every fields of life.



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