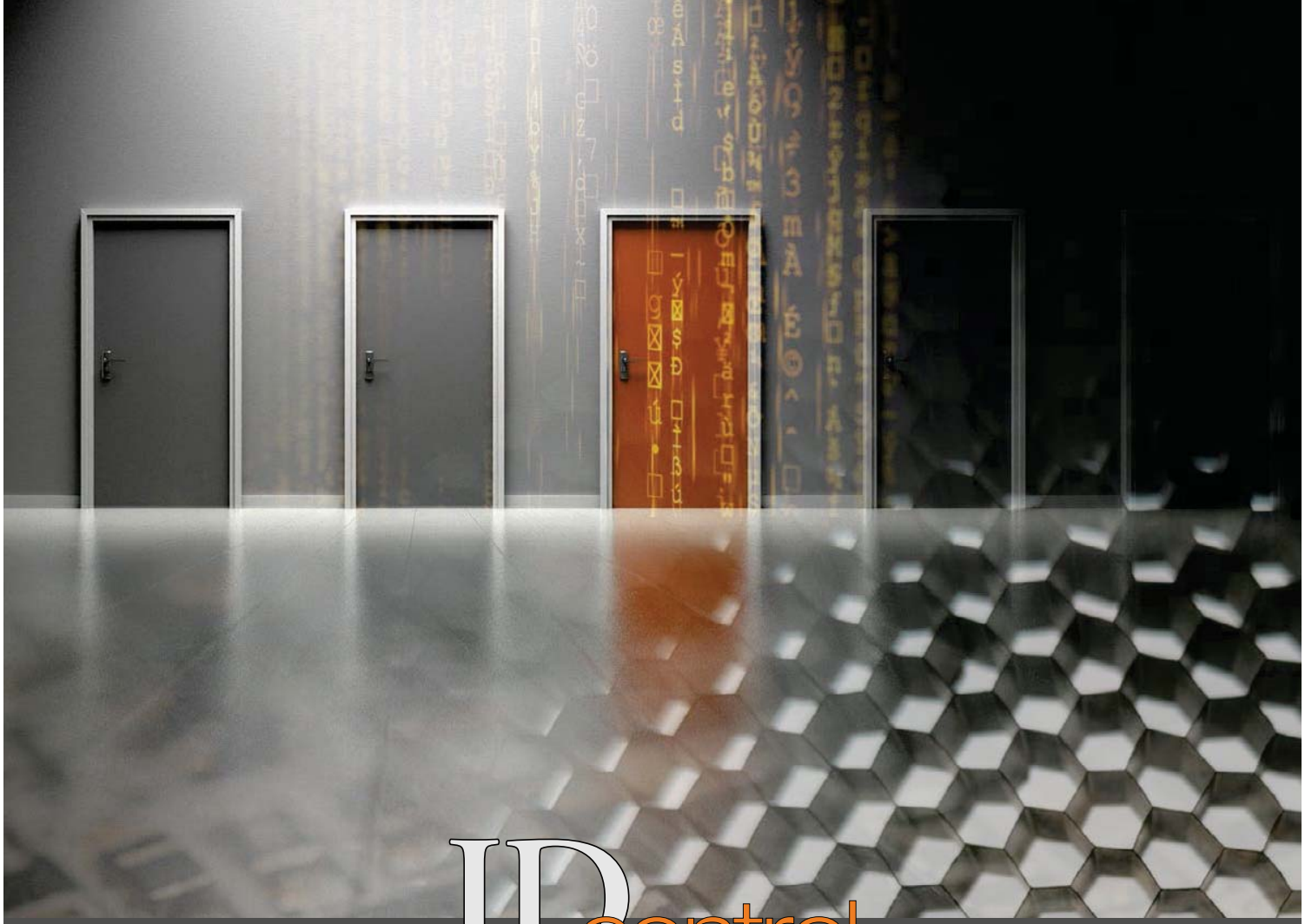

IDcontrol

Digiovi PACS

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Digiovi PACS

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IDcontrol Oy

IDcontrol Oy is a Finnish company focusing on security and identification solutions and products. Our security solutions include hardware and software, which is used in our own access control solution Digiovi (see Digiovi PACS) and its additional software like dashboards, biometric identification and RFID tracking. We focus on using advanced technologies to solve companies' and societies' security and identification issues. Currently we are working in the Baltic Sea Area and Africa. We have one office in Finland and two in Africa, at Accra and Cape Town.

In our projects, we combine different technologies to our own solutions in order to provide the best end result to our partners and customers.

Our roots go back to the year 1946 when the company was founded. In the early 21st century we moved from PVC card production to identification and security products and services. Throughout our journey, customer service and high morale in our business have guided us. We want to commit to our customers and build long lasting relationships. Our center of focus is to provide the right solution to each customer.

Markku Raitanen, the CEO of IDcontrol

Digiovi PACS

Digiovi PACS is a modern access control solution which is developed by IDcontrol Oy. It is designed from the beginning to be a SaaS-based solution. Therefore, all functionalities and features are fully cloud-based. This is not a traditional server-based software turned into cloud service, but a genuine cloud-based solution developed to serve the flexible and modern needs of today's market. As a SaaS software you are able to manage your door environment and access rights whenever and wherever -online and in real time. You only need an internet connection to access our Graphical user interface (GUI).

Controllers are quickly and easily connected to our server through the internet. This enables very quick and smooth installation. In day to day operation controllers are updated seamlessly over the web, including access level management and software updates. If IDcontroller is offline it operates as long as it has power. No data or events are updated until the IDcontroller is connected into the server. When the connection is re-established the IDcontroller will update itself automatically.

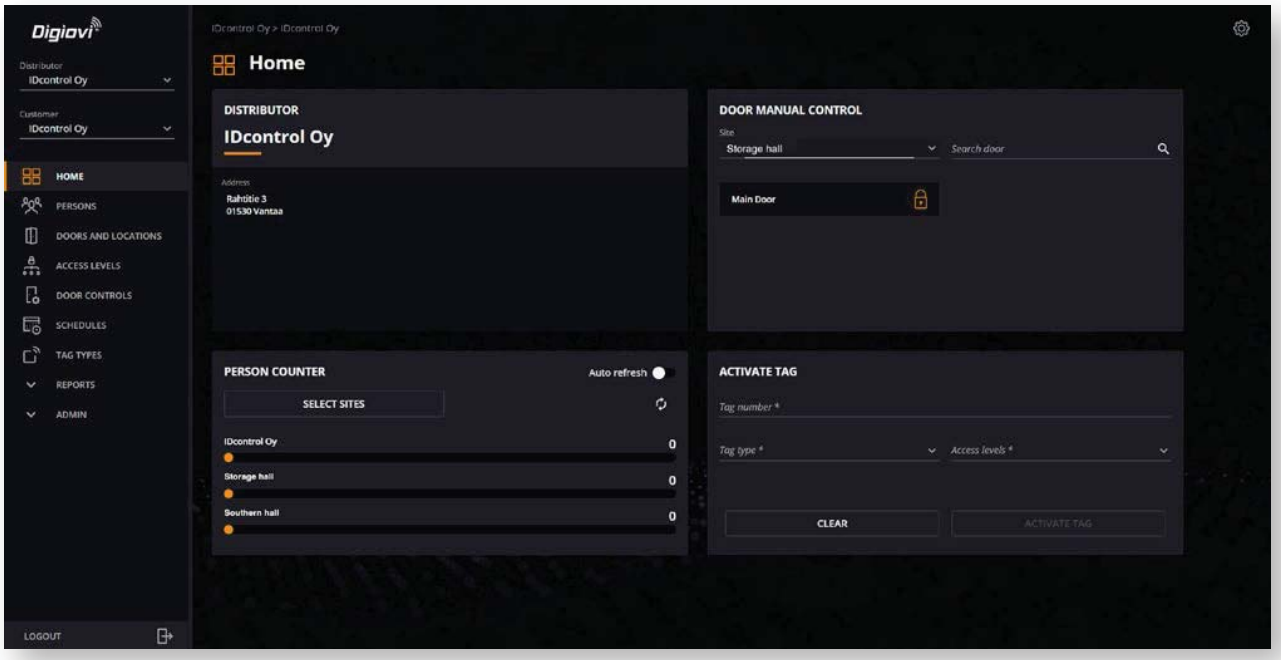
There are no licenses to limit the number of locations, credentials, doors or access levels in the system. You can design the PACS in a manner that best suits your needs to control your doors and environment. The system is always set up to fulfill your current needs. It grows with your business seamlessly. Flexibility and power in one package.

It is easy to integrate third-party software into Digiovi™. We have done integrations like Loyalty CRM, ERP, ticketing and cash register systems into Digiovi™. We are open to any integration and co-operation. Our open API enables smooth and effortless integration to your other solutions. We have an integration test tool to help you with your integration as well as English API documentation.

Digiovi GUI is made easy to use and we have quick user guides to help you to keep your access control environment under control in any given time. Examples of features:

- Add and change access levels and schedules
- Manage doors and sites
- Add and remove people as well credentials
- Deploy credentials in batches (e.g. for ticketing purposes)
- Control all your sites centrally from one GUI
- Doors can be opened based on SMS, the credential, credential + PIN, biometric
- Open door(s) remotely
- Monitor events online
- Integrations to 3rd party software
- Master key for e.g. emergencies
- Open or close all doors schedule based, e.g. locking up for night

All settings are done in GUI, which can be used on your PC, MAC or mobile device. The system works online, so whichever change you make it is applied within seconds in your environment.



Benefits of SaaS

- No need for own server
- No need to maintain server, software nor database
- No need to do data backups
- No clients required on any PC/device
- All software updates are done as a service and remotely
- All monitoring and changes are done in real time – online
- Preventive maintenance
- The server is outsourced so you don't need to buy and maintain your own hardware.

In case of burglary there is no risk of loss server and data. To update server requires skills which you need to keep updated. It is not only the operating system which needs updating, but databases, drivers, and backup software. Often server-based software requires client software on the PC, which then needs to be updated when the server software is updated.

When the software runs in the cloud you don't need to worry about updates, backups nor aging hardware. All these are covered by the cloud service and your data is always stored in a secure location.

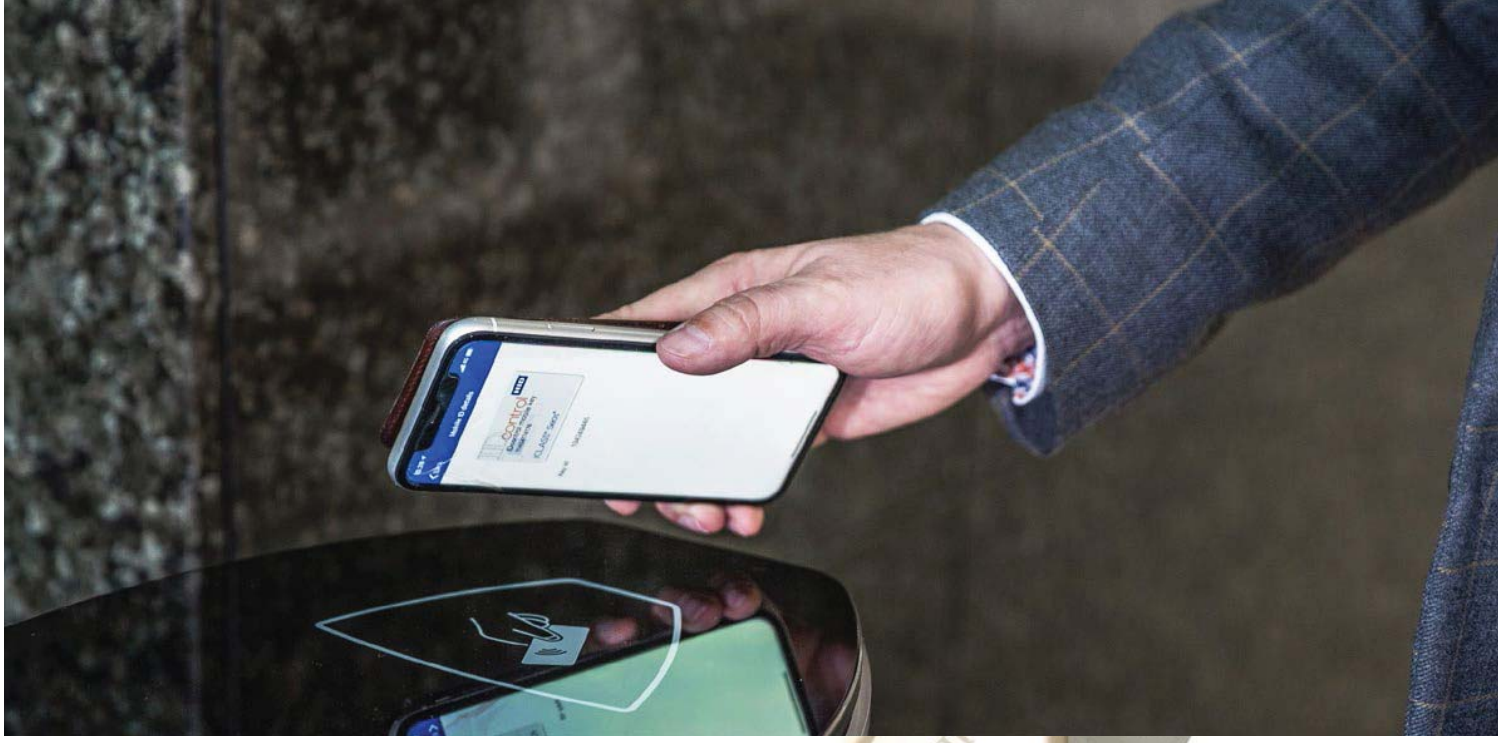
3

Credentials supported

Digiovi PACS supports many different RFID credentials. We recommend using only high or higher security credentials like HID global's SeoS or Mifare Desfire sector reading. Also mobileID credentials are high-security credentials. For MobileID we recommend users to activate either finger print or PIN code recognition on their mobile phone.

- Typically, physical RFID credential can be a PVC card, keyfob or wristband.
- Biometric credentials like fingerprint or facial recognition is available on request.
- Additional credentials include plain PIN code entries and SMS door opening, in which the phone number is used as a credential.
- All credentials can be validly based on time or quantity of passages, which gives you greater flexibility in controlling your door environment.

>>> You can read more about the subject of credentials from our Secure Identification guide.



Digiovi PACS supports many RFID credentials. It also supports mobile-ID, biometric credentials (fingerprint or facial recognition) and plain PIN code entries and SMS credentials.

RFID PVC Cards

Brand	Chip	Product code	Color
HID	Mifare 1k 4BUID	501600600	☐ white
HID	Mifare 1k 7BUID	0501000022-11	☐ white
HID	Mifare 4k		
HID	Desfire 2k EV2	501600621	☐ white
HID	Desfire 4k EV2	501600622	☐ white
HID	Desfire 8k EV2	501600623	☐ white
HID	SeoS 8k	5006	☐ white
HID	Monza R6	6F1401	☐ white
HID	Monza 4QT + Mifare 1k	6C2401-100	☐ white

RFID Keyfobs

Brand	Chip	Product code	Color
HID	Mifare 1k EV1	607031-011	white & black
HID	Mifare 4k EV1	627031-011	white & black
HID	Desfire 2k EV1	6A0031-011	white & black
HID	Desfire 4k EV1	6A1031-011	white & black

4

Security

We take security seriously, not only PACS. To us the system security is an essential part of our product and service.

We have continuous monthly security auditing for each and every Digiovi server. Only a limited and controlled group of people have access to our production environment and servers. We have our own servers which are located in each country which guarantees that we can follow local identity laws and rules. To guarantee that the ability to use our service is continuous, we have doubled crucial components of the server environment such as power supplies, data lines etc. to ensure that power failures won't occur.

System security covers strong user and password authentication with the additional possibility to use SMS authentication. Servers are tested by an outside company for vulnerabilities. Controllers' electrical security is tested by our laboratory partner, Dekra.

We use local cloud servers for our local customers in each country. In some the countries we have multiple servers in in separate locations to lower load shedding and internet connection risks. Country specific servers allows to follow local privacy acts like GDPR and POPI.

5

Hardware controllers and readers

Controller IDcontroller 1.4

Controllers are available in three different models. Plain with no housing for bigger cabinet or rack solutions. Small housing to be used inside cabinets to provide the best protection for the controller itself and thirdly an IP65 housing which can be used for a single door installation, when a controller is installed next to a door.

Controller IDcontroller 2.0

IDcontroller 2.0 is designed to support fully OSDP 2 features and requirements including transparent mode. Reader firmware updates are sent from our server. In our RS485 channel we are able to receive and manage PLC data like MODBUS and Canbus, which can be used in monitoring, decision making or forwarded thru our API.

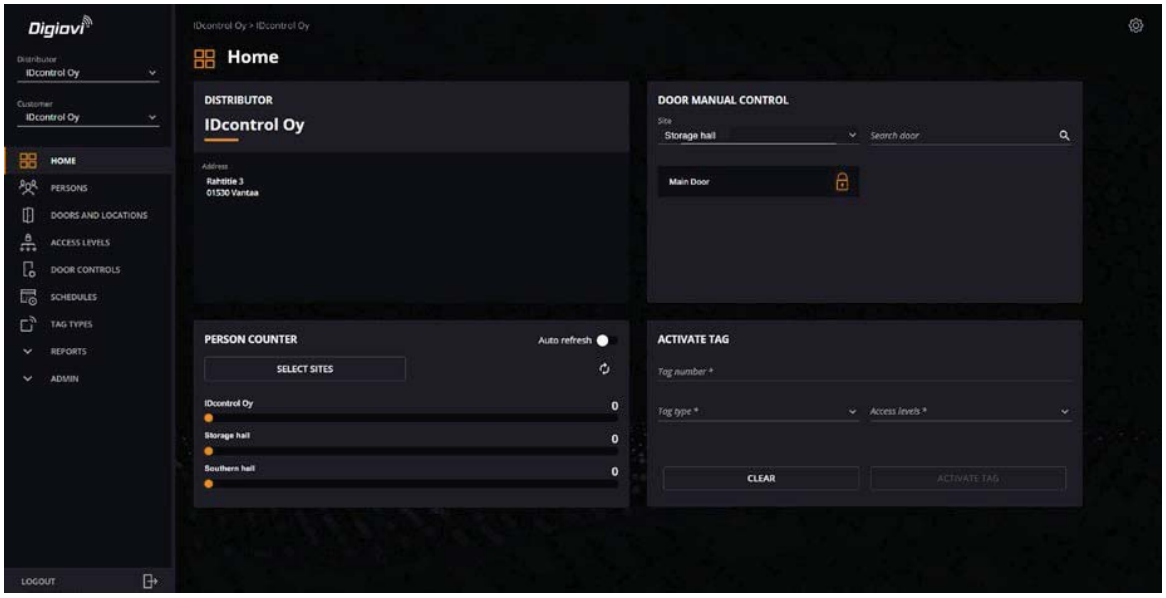
Basic setup includes a Master unit and an amount of Door units. One master can control 16 door units, which in turn can have 2 doors connected. This means 32 doors in total can be managed with one Master. Master and Door units can be installed in same cabinet or Door units can be installed near the door(s). In both options existing cabling can be utilised. You are even able to use existing Ethernet cabling ot transfer RS485 data between Master and Door units.

IDcontroller 2.0 features include:

- Wiegand and OSDP reader support
- Readers can be connected in OSDP directly
- Numerous different OSDP 2 readers can be used in the system
- Wireless locks from Uhlamn Zacher can used in our OSDP 2
- Door unit addressing is done automatically and it can be changed with a Hex disc on the unit or in our cloud based GUI.
- Modbus and Canbus data can be used in our RS485 channel.

Master

Master and door units



Digiovi GUI

Readers

In general, Digiovi PACS supports all kinds of readers who use either Wiegand or RS485 interface. Nevertheless, it is always required to test new readers by an authorized dealer in order to ensure that the chosen reader(s) works in the installation. Our most commonly used readers are >>>

STiD readers

- ARC 1 CSN reader, only for CSN reading, low price, reads Mifare CSN only
- ARC 1 reader for advanced security supports Desfire, Mifare Plus and BLE credentials
- ARC A reader for advanced security supports Mifare, Desfire, Mifare Plus and BLE credentials
- ARC B PIN code reader for advanced security supports Mifare, Desfire, Mifare Plus and BLE credentials
- ARC C Display reader for advanced security supports Mifare, Desfire, Mifare Plus and BLE credentials, supports two way messaging in OSDP and SSCP, PIN codes can be scrambled on screen
- STiD ARC a, B and C series readers can be installed additional QR or 125 kHz reader, on request.

AceProx

- 718-52 for Mifare data sector reading
- 714-52 for Mifare UID reading
- 688-52 HID Prox reading
- 684-52 for EM4xxx reading

Three part housing

AceProx 738-52 is the easiest key wedge reader in the market to configure. It supports Mifare 1k, UL and NFC credentials.

AceProx 738-52

USB keywedge readers

These readers are used to enter credentials into Digiovi in your office environment.

Omnikey 5427 CK and Omnikey 5427 G2 both support a wide range of credentials in both frequencies 125Khz and 13,56Mhz. G2 version supports also HID MobileID credentials.

Omnikey 5427 CK

Idemia Readers

Digiovi client software can used to create the biometric templates. Our client uses the Biobridge software. With this combination the templates created in both door readers memory as well in the cloud. Therefore you need only one client tool to create your templates. Supported readers are Sigma Lite Plus, Wave Compact and VisionPass.

13,56Mhz and BLE readers

Brand	STiD	STiD	STiD	STiD
Product name	ARC1 CSN	ARC 1 BLE	ARC A	ARC A BLE
HF (13.56Mhz) iClas SeoS	-	iClass only	-	iClass only
HF (13.56Mhz) Mifare, Desfire	+ (CSN only)	+	+	+
BLE (Mobile access)	-	+	-	+
PIN code	-	-	-	-
OSDP (RS485)	-	+	+	+
Wiegand	+	+	+	+
Mobile access (includes OSDP)	-	+	-	+
Power input	9 – 15 VDC	9 – 15 VDC	7 – 28 VDC	7 – 28 VDC
Current requi-rement (12VDC)	150 mA	150 mA	130 mA	130 mA
Read range (mm)	0-60	0-60 (RFID), upto 20m (BLE)	0-80	0-80 (RFID), upto 20m (BLE)
Tamper	+	+	+	+
Protection class	IP65	IP65	IP65	IP65
Cabling	pigtail	terminal	terminal	terminal
Colour	■ black	■ black	■ black	■ black
Dimensions (mm)	111.5 x 42.2 x 22	111.5 x 42.2 x 22	106.64 x 80 x 25.7	106.64 x 80 x 25.7
Weight (g)	154 (pigtail)	154 (pigtail)	138	138
Temperature	-20 to + 70	-20 to + 70	-30 to + 70	-30 to + 70
Warrantly	lifetime	lifetime	lifetime	lifetime

13,56Mhz and BLE readers (cont.)

Brand	STiD	STiD	STiD	STiD	AceProx
Product name	ARC B	ARC B BLE	ARC C	ARC C BLE	Mifare reader
HF (13.56Mhz) iClas SeoS	-	iClass only	-	iClass only	-
HF (13.56Mhz) Mifare, Desfire	+	+	+	+	+
BLE (Mobile access)	-	+	-	+	-
PIN code	+	+	+	+	-
OSDP (RS485)	+	+	+	+	-
Wiegand	+	+	+	+	+
Mobile access (includes OSDP)	-	+	-	+	-
Power input	7 – 28 VDC	7 – 28 VDC	7 – 28 VDC	7 – 28 VDC	5 – 13.8 VDC
Current requirement (12VDC)	180 mA	180 mA	220 mA	220 mA	120 mA
Read range (mm)	0-60	0-60 (RFID), upto 20m (BLE)	0-60	0-60 (RFID), upto 20m (BLE)	0-50
Tamper	+	+	+	+	
Protection class	IP65	IP65	IP65	IP65	
Cabling	terminal	terminal	terminal	terminal	pigtail
Colour	■ black	■ black	■ black	■ black	■ black
Dimensions (mm)	107 x 80 x 26	107 x 80 x 26	128 x 80 x 31	128 x 80 x 31	89 x 45 x 16
Weight (g)	138	138	138	138	90
Temperature	-20 to + 70	-20 to + 70	-20 to + 70	-20 to + 70	-20 to + 60
Warrantly	lifetime	lifetime	lifetime	lifetime	2 years

STiD readers can be ordered in special color or with a logo, please ask from our sales team
125kHz readers are available on request

USB readers

Brand	HID	HID	HID	AceProx	AceProx
Product name	Omnikey 5427 GEN 2	Omnikey 5427 GEN 2 BLE	Omnikey 5027 CK	Mifare reader	Prox reader
Part number	R54270101	R54270111	R50270001	738-52	736-52
Credentials supported					
HF (13.56Mhz) iClas SeoS	+	+	+	-	-
HF (13.56Mhz) Mifare, Desfire	+	+	+	+	-
LF(125kHz)	+	+	-	-	+
HID Prox	+	+			
BLE	-	+	-	-	+
OS support					
Windows 8 & 10	+	+	+	+	+
Linux	+	+	+	+	+
Android	+	+	+	+	+
Mac OS X	+	+	+	+	+
Cabling	USB	USB	USB	USB	USB
Power	USB	USB	USB	USB	USB
Colour	black	black	blue	black	black
Dimensions (mm)	95 x 70 x 20	95 x 70 x 20	59 x 59 x 11.4	100 x 59 x 21	100 x 59 x 21
Weight (g)	135	135	71	55	55
Warrantly	2 years	2 years	2 years	2 years	2 years

USB readers (cont.)

Brand	Elatec	Elatec	Elatec
Product name	TWN4 MultiTech	TWN4 MultiTech 2	TWN4-Pi
Part number	T4DT-FB2BEL	T4DT-FB2BEL-P	T4DT-FB2BEL-PI
Credentials supported			
HF (13.56Mhz) iClas SeoS	-	-	+
HF (13.56Mhz) Mifare, Desfire	+	+	+
LF(125kHz)	-	+	+
HID Prox			
BLE	-	+	+
OS support			
Windows 8 & 10	+	+	+
Linux	+	+	+
Android	+	+	+
Mac OS X	+	+	+
Cabling	USB	USB	USB
Power	USB	USB	USB
Colour	■ black	■ black	■ black
Dimensions (mm)	88 x 56 x 18	88 x 56 x 18	88 x 56 x 18
Weight (g)	117	117	117
Warrantly	2 years	2 years	2 years

Idemia readers

Product name	VisonPass	MA Sigma Lite +	Morpho Wave Compact
Display type	7 inch Touchscreen	2.8 inch Touchscreen	4.3 inch Touchscreen
Loudspeaker	Yes	Buzzer	Intercom
Sensors	Visible light camera(2D), infrared camera(2D), 3D camera	FBI PIV IQS certified optical sensor	Hand presence detection and QR code scanning possibility
Users	Up to 40.000 users	Up to 10.000 (*3 templates each)	Up to 40.000 user(2*4 fingers each)
HF (13.56Mhz) iClas SeoS	iClass	+	+
HF (13.56Mhz) Mifare, Desfire	+	+	+
Prox	+	+	+
PIN code	Natively supports PIN code		
OSDP (RS485)	+		+
Wiegand	+	+	+
Power input	12 to 24 VDC	12 to 24 VDC + PoE	12 to 24 VDC + PoE
Current requirement (12 VDC)	3A		2.5A
Tamper	+	+	+
Protection class	IP65	IP65	IP65
Mechanical impact protection		IK08	
Network communication	Ethernet, RS485, USB, Wi-Fi and 4 G option	Ethernet, RS485, USB, Wi-Fi option	Ethernet, RS485, USB, Wi-Fi and 4 G option
Colour	■ black	■ black	■ black
Dimensions (mm)	325 x 143 x 110	156 x 68 x 62	250 x 152 x2 16
Weight	2.1kg	280g	2.2kg
Temperature	-10 to + 45	-20 to + 50	-10 to + 55
Warrantly	2 years	2 years	

6

Technical data

IDcontroller Master 2.0 Technical Specifications:

Model number	IDcontroller Master 2.0
Dimensions	120 x 116 x 25 mm
Environmental rating	IP21
Power	5 - 30 VDC
Current requirement	0,5 A min @ 12 V
Memory	8 Gb
Operating Temperature	0 °C to 45 °C
Non – Operating temperature	-10 °C to 60 °C
Operating humidity	5 % to 90 % (non-condensing)
Communication	2 x RS485
Ethernet connection	10/100 Mbps, RJ45
Relays	1 NO
Outputs	2 GPIO
Inputs	2 GPIO
Maximum number of credentials	500.000
Maximum number of stored events	1.000.000
RFID tag compatibility (Reader dependent)	13,56 Mhz (ISO 14443 A, Mifare 1k classic and EV1, Mifare UL, NTAG2XX, ISO15963 read only Desfire, iClass, SeoS) UHF, BLE, 125 kHz (prox, EM4xxx and Indala)
Industry Partners	Uhlmann Zacher, HID Global, STiD
Warranty	Warrantied for material and workmanship defects for 2 years (see warranty policy for details)
Additional features	Supports 32 Peripheral devices, OSDP 2 fully supported including HID reader remote updates, Transparent mode available on request, BLE supported HID and STiD

Ports and protocols

From Devices/LAN
To api.digiovi.fi
Port TCP/443 (https from devices and users to management UI)

From Devices/LAN
To login.digiovi.fi
Port TCP/443 (https from devices and users to management UI)

From Devices/LAN
To ip.moonhill.fi
Port TCP/443 (https from devices and users to management UI)

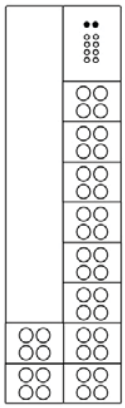
From Devices
To vpn.digiovi.fi
Port UDP/1194 (OpenVPN from controllers to device management)

Certificates: CE: IEC 60950-1/ EN 60950-1 and EMC: EN:55032:2015+AC:2016+EN:50130-4.

Digiovi Physical Access Control Solution is a SaaS based product, which can be used dependent of time or place. Third party partner solutions can be allowed to control the doors thru API, along with the Digiovi GUI.

Patent no: Fi 125780B, South Africa patent number is 2016/03725. Nigerian patent F/P/2016/125

IDcontroller Doorunit 2.0 Technical Specifications:



Model number	IDcontroller Slave 2.0
Dimensions	128 x 79 x 35 mm
Environmental rating	IP21
Power	5 - 27 VDC
Current requirement	1 A min @ 12 V
Memory	8 Gb
Operating Temperature	0 °C to 45 °C
Non – Operating temperature	-10 °C to 60 °C
Operating humidity	5 % to 90 % (non-condensing)
Communication	2 x RS485
Ethernet connection	N/A
Output	2 x relays, 3 x RS485, 2 x Wiegand, 6 GPIO
Inputs	6 GPIO
Maximum number of credentials	N/A
Maximum number of stored events	N/A
RFID tag compatibility (Reader dependent)	13,56 Mhz (ISO 14443 A, Mifare 1k classic and EV1, Mifare UL, NTAG2XX, ISO15963 read only Desfire, iClass, SeoS) UHF, BLE, 125 kHz (prox, EM4xxx and Indala)
Industry Partners	Uhlmann Zacher, HID Global, STiD
Warranty	Warrantied for material and workmanship defects for 2 years (see warranty policy for details)
Additional features	OSDP 2 fully supported including HID reader remote updates, Transparent mode available on request, BLE supported HID and STiD

Ports and protocols

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To login.digiovi.fi
Port TCP/443 (https from devices and users to management UI)

From Devices/LAN
To ip.moonhill.fi
Port TCP/443 (https from devices and users to management UI)

From Devices
To vpn.digiovi.fi
Port UDP/1194 (OpenVPN from controllers to device management)

Certificates: CE: IEC 60950-1/ EN 60950-1 and EMC: EN:55032:2015+AC:2016+EN:50130-4.

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Patent no: Fi 125780B, South Africa patent number is 2016/03725. Nigerian patent F/P/2016/125

7

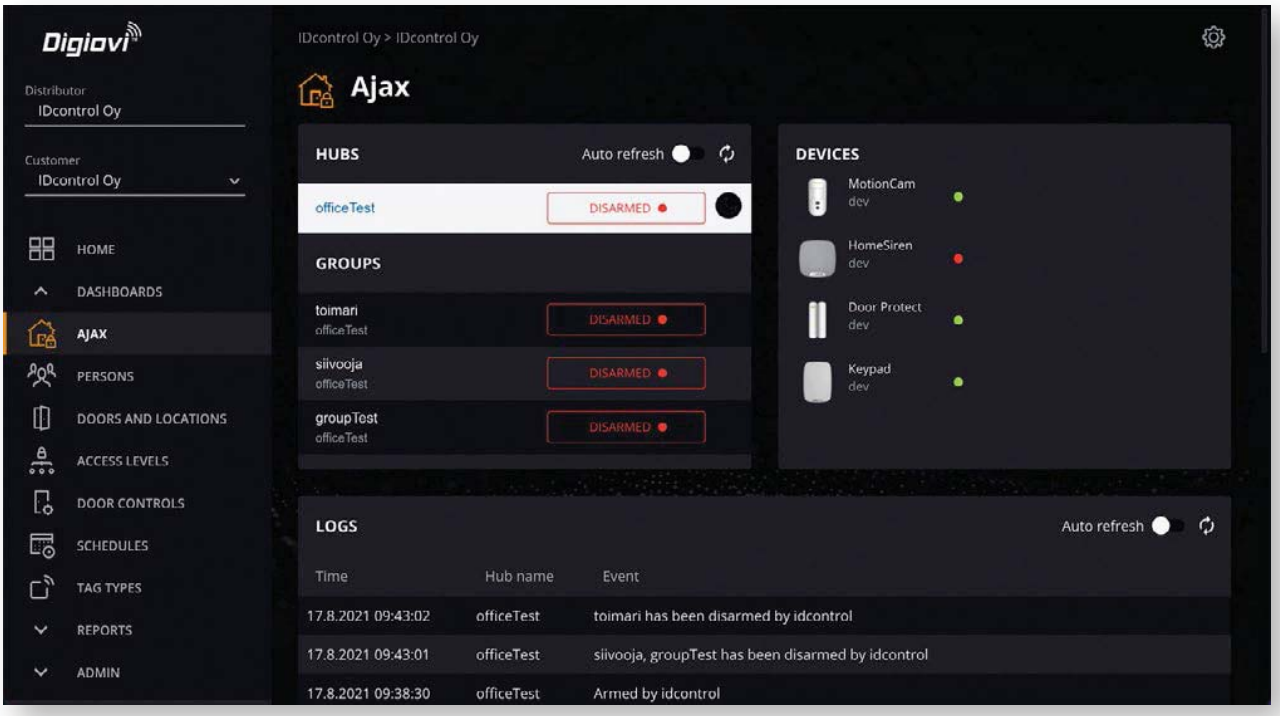
Integration of Digiovi and Ajax security system

The integration of Digiovi and Ajax security system is done through the API in the cloud. If either of the systems is already installed, adding the other one to it is easily done by configuring the SaaS connection. Because Ajax wireless devices are very fast to install and deploy it provides a cost- effective additional solution to Digiovi users.

The combination of Ajax and Digiovi offers the customer a comprehensive package: access control and safety. Components of the Ajax system include:

- wireless motion detector
- wireless glass break detector
- wireless door detector
- wireless water leak detector
- wireless relays
- wireless plug with consumption measurement
- wireless siren
- wireless smoke and temperature alarm

When the Ajax security system is connected to the Digiovi access control, the user can activate and deactivate Ajax devices in accordance with access control rules and settings. Individuals can be given different control rights to the Ajax device using access levels. Approved access control identification will disarm the alarm from the access-controlled area as well as those groups and hubs linked to the access level. By grouping different devices, it is possible to get different additional features into the system such as turning off the burglar alarm, turning on the lights, or controlling other devices with wireless relays.



8

Wireless locks

When access control is to be implemented in interior doors, Uhlmann & Zacher locks are a cost-effective and easy-to-implement solution, which works seamlessly in Digiovi system. The wireless locks can also be added to the Digiovi environment at any time.

For Scandinavian market there is an adapter available, which allows Uhlmann & Zacher handles and knobs to be easily installed to existing locks. Therefore, the installation time and setup are very fast and smooth. Compared to an electric lock, the solution is remarkably fast as well as cost effective. Wireless locks are connected to the first generation 1.4 Digiovi terminals with the manufacturer's Wiegand device, and locks for the Digiovi 2.0 system are connected on the OSDP bus. Wireless locks are powered by a battery in the device which provides around 160,000 openings. Suitable tags for these locks include Mifare Desfire and STiD mobile tags.

In addition to door locks, Uhlmann & Zacher's range includes both cabinet locks and buttons for outdoor use with an IP66 rating.

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IDcontrol