



# Paxos® advance IP

Redundant –  
Modular – Reliable

# Maximum reliability

# Redundant technology



## **Proven Technology**

In the market since 1988, the high security locks Paxos® system and Paxos® compact protects billion dollars all over the world: In vaults, ATMs, securities accounts, banknote printing, jewel depots etc.

In millions of operating hours, the systems have proven their extraordinary reliability and availability. Paxos® advance IP is the consistent and logical enhancement of this reliable, tried-and-tested technology.



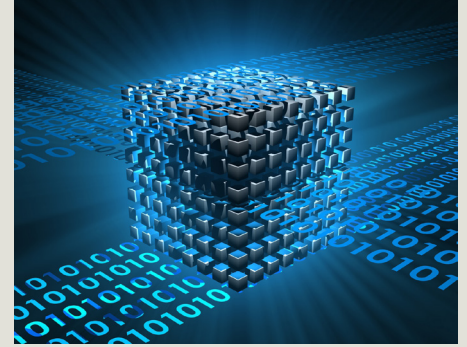
### Twofold security

Where ever the highest demands are placed on security and reliability, any modules whose function is critical in the event of a failure must be installed multiple times, or redundantly. To date, this type of redundancy has been used to successfully and significantly increase operational reliability within satellite technology, the aviation industry and the storage of security relevant data. Redundant systems were implemented throughout the Paxos® advance to guarantee the highest possible level of security.



### Maximum availability

Full system redundancy means much more than doubling the security. The improbability of two self-contained systems failing at the same time provides a quantum leap when it comes to the availability of redundant units. The double system design used throughout the Paxos® advance provides extensive fault detection and the highest possible chance of avoiding complete system failure.



### Far-reaching fault detection

When Paxos® advance IP detects a fault, it switches to the redundant part of the system, ensuring the safe or vault rooms can always be opened. The operator is informed about any faults detected. Whilst action can be taken to replace the faulty part, general business can proceed at the customers peace of mind. In addition, the detailed audit log allows precise conclusions to be drawn about the source of the fault, or of a possible security breach.

Paxos® advance IP is the redundant, motorized high security lock for safes and vaults when it comes to providing maximum reliability, ease of use, configuration and installation. Taking the aviation industry as an example, all components relevant to security have been designed for redundant operation to guarantee full functionality at every time of day and night.





# Modular system Versatile applicable

**With the Paxos® advance IP Series you define setup and functional range of your high security locking system.**

## **Modular**

The modular construction of Paxos® advance IP allows the system to be adapted to actual and future needs quick and flexible. From stand-alone single locking systems to networked multiple locking systems with door- and inner cabinet locks and multiple input units connected to alarm and monitoring systems, the entire range is available thanks to the system's modularity. Besides, the redundant lock case has been refined into a compact design and will retrofit existing high security locks foregoing additional drilling.

## **Configurable**

Paxos® advance IP can be configured directly on-site using the input unit or USB interface, respectively remote, via a network software. The system configuration can be saved and copied onto other locking systems. Existing systems can always be extended at a later stage, no

matter if more input ports or additional inner cabinet locks are required.

## **Secure**

Paxos® advance IP was designed with an uncompromising focus on security. That is reflected by the general construction of the system for all important data is saved exclusively in the lock and, thus, inside the secured area. Networked lock systems encrypt the communication according to AES256 and secure the transmitted data against unauthorized access.

Attempted manipulations of the system clock by interruption of the power supply are logged and block the system until the release by an authorized code. All input signal lines can be monitored. In case of a line manipulation, for example of the remote blocking input, a duress alarm will be triggered and the system will be blocked at the same time.

# Bus-oriented Individually upgradeable

Reliable hardware guarantees invaluable functional benefits. Flexible and easily configurable components allow the system to be adapted to individual security requirements optimally. High-performance, redundant electronic systems enable comprehensive status monitoring and rapid intervention options to ensure security is maintained.

The bus-oriented design of Paxos® advance IP allows the versatile setup of locks, input units and interface boxes.

## Paxos® advance IP is setup with a versatile combination of the following system components:

- Redundant motor lock - the real core of the system - for blocking the opening mechanism of a vault door.
- Input unit - there are keypad and dial knob variants, depending on the security requirement, available - for operating the system.
- Interface box - there are I/O and IP boxes for connecting Paxos® advance to an alarm system, for the external power supply or for a Paxos® advance IP network.

01



02



03



04



**01**

Keypad input unit for easy and secure operational convenience with a multi-lingual, backlit display, battery compartment and USB-interface.

**02**

Dial knob input unit for spy proof operation with a multi-lingual, backlit display, battery compartment and USB-interface.

**03**

High-security redundant motor lock for class B/C and class D.

**04**

IP-Box with in-puts/outputs and network interface.

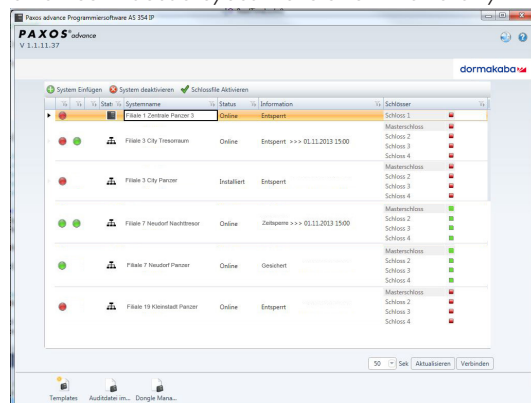
# Online system User-friendly software

For networked Paxos® advance IP systems the Paxos® Software is the optimal tool for managing and administration!

The powerful software allows the complete Paxos® advance IP system to be configured. Additionally, the software contains an online monitor as well as an area for reading out the audit trail.

## Online monitoring

Networked Paxos® advance IP systems are displayed in real time on a well-arranged monitoring screen. Thereby, the locking state of all connected systems is shown and any

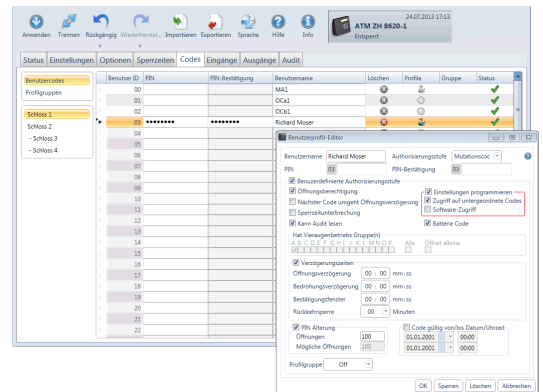


possible alarms or warnings. A connection to a system can easily be established by a simple double click on the system.

## Configuration

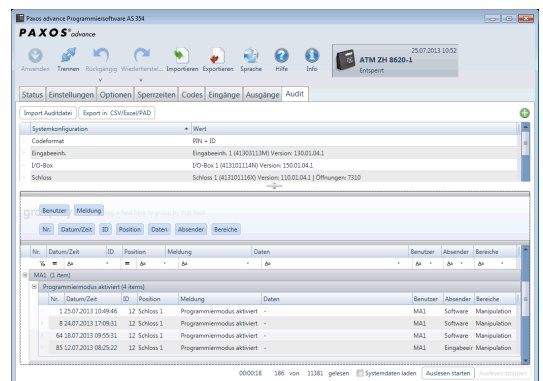
Once connected and released with an authorized code a Paxos® advance IP system can be configured with a computer. User codes including their authorization level and rights, time and alarm settings, time locking periods, input- and output configurations of the interface boxes and more settings are preconfig-

ured on the computer and transmitted to the system by a mouse click.



## Logging

Paxos® advance IP captures all security relevant events, changes made and occurred error messages in a non-volatile event memory. Thereby, a complete and chronological backtracking of all events is possible at any time. The audit function of the software offers several filter functions for wanted events are found efficiently and can be displayed and exported in an adequate form.



## Networking and encryption

The networking allows easy and resource-optimized management and monitoring of an unlimited number of locks. All network communication is encrypted by the widely used AES256 standards.

# One product series

## Different models

The redundant design of Paxos® advance IP locking systems makes it the ideal solution for high security applications. The additional network compatibility paired with various config-

urable user rights and time locking periods help the product to be a well-recognized standard for banks and insurances.

Paxos® advance IP functions	Lock class B/C	Paxos® advance IP class B/C
Users (per lock)	26 <sup>1</sup> / 96 <sup>2</sup> / 100 <sup>3</sup>	100
Code structure and length	PIN only (8 digits) or ID/PIN (2/8 digits)	ID/PIN (2/8 digits)
Master code	1 preset, up to 26 <sup>1</sup> / 93 <sup>2</sup> / 97 <sup>3</sup> definable, rights configurable	1 preset, up to 97 definable, rights configurable
Mutation-/Time code	up to 26 <sup>1</sup> / 93 <sup>2</sup> / 97 <sup>3</sup> definable, rights configurable	up to 97 definable, rights configurable
Opening code	26 <sup>1</sup> / 95 <sup>2</sup> / 99 <sup>3</sup> definable, rights configurable	up to 99 definable, rights configurable
Dual mode	yes, any two opening codes, configurable by dual mode groups	
Network-compatible	yes	
Max. Number of components	10	
Inner cabinets	yes, redundant locks as inner cabinet locks configurable	
Weekly-/ Partial Time Lock	28 each	
Yearly- / Holiday Time Lock	28 each	
Time Lock Interruption	8 free configurable periods, code entry, external input, emergency push button	
Opening delay	1 common 4 time related up to 26 <sup>1</sup> / 93 <sup>2</sup> / 97 <sup>3</sup> code related	1 common 4 time related up to 97 code related
Event memory	10'000 entries	
Display languages	English, German, French, Italian, Spanish, Dutch, Hungarian, Croatian, Slovenian, Polish, Turkish, Finnish, Lithuanian, (Czech <sup>4</sup> , Slovakian <sup>4</sup> )	

1) Dial knob with PIN only and Duress

2) All other with PIN only

3) ID+PIN

4) Languages available in special versions



**Safe Locks**

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