

## Keyscan iCLASS SEOS credentials

High security SEOS credentials

## High frequency smart card offers highest security for access control

Keyscan's I8KSEOS iCLASS® SEOS™ smart cards are based on a secure, technology to manage and authenticate identities for physical access control solutions market.

iCLASS SEOS cards are ideal for organizations with stringent security requirements for their credential solution, as well as enterprise organizations looking for a cost-effective solution. As part of the iCLASS SE® platform, the cards deliver superior data integrity and privacy protection by leveraging the latest cryptographic algorithms. iCLASS SEOS cards also utilize a secure messaging protocol to protect data transmission with the off-card applications providing strong authentication mechanisms to protect the communications between card and reader.

For migration purposes, the credential is available as a multi-technology card that is supported by iCLASS SE® and multiCLASS SE® readers that can process SIO-enabled data formats.

- Strong authentication First enterprise-ready converged card for securing physical access control.
- Increased interoperability Open, standards-based solution supports future technologies and can store data for multiple applications.
- Technology Multi-layered security supports the portable Secure Identity Object (SIO®) data model.
- Heightened privacy protection No traceable identifiers exchanged during card sessions, preventing data associated to a card from being divulged or cloned.
- Compatibility Fully supported by iCLASS SE® and multiCLASS SE® readers that can process SIO-enabled data formats.\*



High security SEOS cards offer stringent & affordable security



Keyscan I8KSEOS credential will function with iCLASS SE® and multiCLASS SE® readers\*

## **Features and Benefits**

- · Available in 8K-Byte memory
- AES-128 bits cryptographic algorithms for data protection
- · Mutual authentication protocol with generation of diversified session key to protect each card session (using secure messaging).
- Secure data storage with flexible data model (file system based) using a firewalled architecture for data separation between applications.
- Supports ISO/IEC standards: 7810, 7816 and contactless cards (14443 A).
- · Random Card Serial Number (CSN) generated each time credential is read. 4 Bytes. (Not to be used for CSN applications)
- · Hardware chip integrating co-processor with high performance for cryptographic calculations with symmetric keys.
- One Time Password generation using standards-based solution.
- Programmable with one or several Secure Identity Objects® (SIOs®) for each application.
- High resistance to common attacks (man in the middle, replay attacks and others).

## **Specifications**

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Operating frequency	13.56 MHz with ISO/IEC 14443 Type A
Construction	Composite with 60% PVC / 40% PET
Product weight	0.20 oz (5.5g)
Memory size/application areas	iCLASS Seos 8K secure processor
Privacy mode	Privacy-preserving mode (with encryption of device identifiers)
Secure messaging	EN 14890-1 and 7816 aligned using AES algorithm
Write endurance	Min 500,000 cycles
Data retention	Min 20 years
HID Proximity compatible	No
Contactless smart chip embedded	Yes
Printable	Yes (white/white card). Usable with direct imaging and thermal transfer printers. Exclusion areas for printing may apply in some areas of the card plastic
Slot punch	Not available
Warranty	Lifetime
SEOS reader compatibility	Keyscan R10SO, R40SO, RK40SO R10SOM; R40SOM; RK40SOM (NFC & BLE ready)

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