





COMPACT AND CONVENIENT CREDENTIAL FOR KEY RING APPLICATIONS

- Compact and convenient All the power of iCLASS® Seos® technology packed into a convenient, pocket-size key fob, designed to be neatly attached to a key ring.
 Enabling secure, versatile, and open standards-based access control.
- Highly secure Seos is Secure Identity Object (SIO)-enabled, allowing for multilayered security beyond the card technology and protecting identity data from unauthorized access.
- Certified Based on Common Criteria (CC) EAL 5+ hardware platform, ensuring a clear chain of evidence that the platform's security attributes have been rigorously tested and independently verified.
- Multi-application Part of the iCLASS SE® platform, an open and standards-based solution that supports data storage for multiple applications beyond traditional access control such as secure printing, time and attendance, cashless vending and biometric templates.
- Heightened privacy protection Seos offers best-in-class data and privacy protection by incorporating mutual authentication and secure messaging mechanisms into stringent best practices for data protection.
- Greater durability Molded housing for maximum protection in harsh environments, capable of withstanding elevated operating temperatures when compared with cards
- Compatibility Supports iCLASS SE single-technology and iCLASS SE Express reader deployments.

HID Global's Seos® Key Fob is a credential that delivers the same level of security as a smart card, but offers portability where a key fob form factor is desired for convenience.

The Seos® Key Fob is powered by Seos, the next generation of credential technology that provides enhanced security, privacy and functionality. Additional features enabled through advanced technology include secure access via mobile devices and the ability to efficiently manage multiple applications.



SPECIFICATIONS

Seos 8K Key Fob	
Operating Frequency	13.56 MHz
Communication Protocol Compliance	ISO14443A-4
Communication Speed	Up to 848kbps
Memory Type	EEPROM
Memory Size	8 Kbytes
Multiple Applications Support	Yes (using Open Data Profile)
SIO Data Object Support	Yes (Enabled by default)
HID Format Support	Yes (wrapped in SIO)
Write Endurance / Data Retention	Min 100,000 cycles / 10 years
Typical Transaction Time	Data size dependent
Extended Privacy Support	Yes
Security Features	Mutual authentication (compliant to ISO/IEC 24727-3), key diversification (based on NIST SP800-108 using AES 128), secure messaging (compliant to EN14890-1:2009). Session key derivation based on NIST SP 800-56A.
Security Certification	Common Criteria (CC) EAL 5+ HW certified platform
UID	Random UID (default), 7 byte static UID (optional, not recommended)
COMPATIBILITY AND PERFORMANCE ¹	
iCLASS SE ² Readers (non-keypad variants)	Up to 3 cm (1.18")
iCLASS SE ² Readers (keypad variants)	Up to 1 cm (0.3")
iCLASS SE Express	Up to 3 cm (1.18")
CP1000D Desktop Encoder	Read/ Write (SIO) / R/W to custom ADF
iCLASS SE Biometric Reader	Template R/W up to 2cm (0.78")
iCLASS SE RB25F Fingerprint Reader	Template R/W up to 2cm (0.78")
Omnikey Readers ³	Read SIO and R/W to Open Data or custom ADF
Embedded SE devices ⁴	Read SIO and R/W to Open Data or custom ADF
MECHANICAL, ENVIRONMENTAL AND COMPLIANCE	
Card Construction	Ultrasonically welded ABS Shell with TPE insert
Weight	0.13 oz (3.8g)
Operating Temperature	-13° F to 185° F (-25° C to + 85° C)
Storage Temperature	-13° F to 185° F (-25° C to + 85° C) for 1000h
Thermal Shock	-31° F to 185° F (-35° C to + 85° C) 100 cycles (soaking time 5 min, transition time 30 s)
Chemical Resistance	The card can withstand exposure salt water (5%) salt mist, acetic acid water (5%), carbonated sodium water (5%), sugared water (10%), ethylene glycol (50%) for at least 24 hours
Standards Compliance	ISO14443-4, ISO/IEC 24727-3:2008, EN 14890-1:200
Environmental Compliance	IP67 (1m /1 hour), RoHS, China RoHS, REACH, Halogen Free
Warranty	Lifetime Warranty



- 1 HID Global testing occurs in open air. Some environmental conditions, including metallic mounting surface, can significantly degrade read range and performance; plastic or ferrite spacers are recommended to improve performance on metallic mounting surfaces. Spacers for iCLASS SE readers are available at hidglobal.com. 2 multiCLASS SE readers are not supported
- 3 See Logical Access HTOG for Seos compatible Omnikey products
- 4 Read performance is dependent on antenna design and environment

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