



DIMENSIONS
(FRONT)



3.37"
(8.57cm)

2.13"
(5.4cm)

(BACK)



HIGH DURABILITY SLOT-PUNCHED CONTACTLESS SMART CARD

Base Part Number: 565

- **Highly secure** - Seos is Secure Identity Object (SIO)-enabled, allowing for multi-layered 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.
- **High durability** - All the power of Seos technology packed into a robust ABS shell construction that provides protection in harsh environments.
- **Slot-punched** - Simply attach to a lanyard with ease for swift deployment, no plastic cardholders needed.
- **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.

HID Global's Seos[®] Clamshell is a highly durable credential that delivers the same level of security as a smart card while featuring a slot punch to enable convenient deployment.

The Seos[®] Clamshell is powered by Seos credential technology, which provides enhanced security, privacy protections, and functionality. Additional features enabled through advanced Seos technology include secure access via mobile devices and the ability to efficiently manage multiple applications.

Seos Programming Options

- Secure Identity Object (SIO) - compatible with HID programming formats
- Field encoder ready "V option" - encode using CP1000D SE Encoder

Ordering Information

For full details, refer to the [Readers and Credentials How to Order Guide](#)



SPECIFICATIONS

Seos 8K Clamshell

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. 500,000 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. Common Criteria (CC) EAL 5+ HW certified platform
Security Certification	0.17 oz (5 g)
UID	Random UID (default), 7 byte static UID (optional, not recommended)
Compatibility & Performance¹	
iCLASS SE Readers	Up to 2" (5 cm)
multiclass SE Readers	Up to 1.6" (4 cm)
CP1000D Desktop Encoder	Read/ Write (SIO) / R/W to custom ADF
iCLASS SE Biometric Reader	Template R/W up to 1.2" (3 cm)
iCLASS SE RB25F Fingerprint Reader	Template R/W up to 1.2" (3 cm)
Omnikey Readers²	Read SIO and R/W to Open Data or custom ADF
Embedded SE devices³	Read SIO and R/W to Open Data or custom ADF
Mechanical, Environmental and Compliance	
Card Construction	Ultrasonically welded ABS shell with matt PVC label
Weight	0.24 oz (6.8g)
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	ISO14443A-4, ISO/IEC 24727-3:2008, EN 14890-1:200
Environmental Compliance	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 See Logical Access HTOG for Seos compatible Omnikey products

3 Read performance is dependent on antenna design and environment



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