



# Seos® 8K Clamshell Card

**DIMENSIONS**  
(FRONT)

3.37"  
(8.57cm)



2.13"  
(5.4cm)

(BACK)



**HIGH DURABILITY SLOT-PUNCHED CONTACTLESS SMART CARD**

**Base Part Number: 565**

- **Security** - 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, helping ensure 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.
- **Privacy protection** - Seos offers enhanced data and privacy protection by incorporating mutual authentication and secure messaging mechanisms into data protection practices.

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

<b>Operating Frequency</b>	13.56 MHz
<b>Communication Protocol Compliance</b>	ISO14443A-4
<b>Communication Speed</b>	Up to 848kbps
<b>Memory Type</b>	EEPROM
<b>Memory Size</b>	8 Kbytes
<b>Multiple Applications Support</b>	Yes (using Open Data Profile)
<b>SIO Data Object Support</b>	Yes (enabled by default)
<b>HID Format Support</b>	Yes (Wrapped in SIO)
<b>Write Endurance / Data Retention</b>	Min. 500,000 cycles / 10 years
<b>Typical Transaction Time</b>	Data size dependent
<b>Extended Privacy Support</b>	Yes
<b>Security Features</b>	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
<b>Security Certification</b>	Common Criteria (CC) EAL 5+ HW Certified platform
<b>UID</b>	Random UID (default), 7 byte static UID (optional, not recommended)

### Compatibility & Performance<sup>1</sup>

<b>iCLASS SE Readers</b>	Up to 2" (5 cm)
<b>multiclass SE Readers</b>	Up to 1.6" (4 cm)
<b>CP1000D Desktop Encoder</b>	Read/ Write (SIO) / R/W to custom ADF
<b>iCLASS SE Biometric Reader</b>	Template R/W up to 1.2" (3 cm)
<b>iCLASS SE RB25F Fingerprint Reader</b>	Template R/W up to 1.2" (3 cm)
<b>Omnikey Readers<sup>2</sup></b>	Read SIO and R/W to Open Data or custom ADF
<b>Embedded SE devices<sup>3</sup></b>	Read SIO and R/W to Open Data or custom ADF

### Mechanical, Environmental and Compliance

<b>Card Construction</b>	Ultrasonically welded ABS shell with matt PVC label
<b>Weight</b>	0.24 oz (6.8g)
<b>Operating Temperature</b>	-13° F to 185° F (-25 °C to + 85 °C)
<b>Storage Temperature</b>	-13° F to 185° F (-25 °C to + 85 °C)
<b>Thermal Shock</b>	-31° F to 185° F (-35 °C to + 85 °C) 100 cycles (soaking time 5 min, transition time 30 s)
<b>Chemical Resistance</b>	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
<b>Standards Compliance</b>	ISO14443A-4, ISO/IEC 24727-3:2008, EN 14890-1:200
<b>Environmental Compliance</b>	RoHS, China RoHS, REACH, Halogen Free
<b>Warranty</b>	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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