HID®

iCLASS SE®
Readers

HIGHLY ADAPTABLE AND SECURE HIGH FREQUENCY ACCESS CONTROL SOLUTION

- **Powerfully Secure** – Provides multi-layered security beyond the card technology, providing added protection to identity data using SIOs.

- **Technology-independent** – Supports multiple technologies (iCLASS® Seos™ and iCLASS SE credential platforms, standard iCLASS, MIFARE®, and MIFARE DESFire® EV1).

- **Adaptable** – Interoperable with a growing range of technology environments and form factors including NFC smartphones via Seos.

- **Standardized Communications** – Open Supervised Device Protocol (OSDP) for secure, bidirectional communication.

iCLASS SE Platform

iCLASS SE readers include Open Supervised Device Protocol (OSDP), a new Security Industry Association (SIA) standard that together with Secure Channel Protocol (SCP) provides secure communications and central management.

HID Global's iCLASS SE access control platform goes beyond the traditional smart card model to offer a secure, standards-based and flexible platform that has become the new benchmark for highly adaptable, interoperable and secure access control solutions.

Ideal for new and existing installations, iCLASS SE readers provide customers the assurance that their existing investments can be leveraged to enhance their system as business requirements change. The technology-independent readers also support iCLASS Seos and iCLASS SE credential platforms, as well as standard iCLASS, MIFARE, MIFARE DESFire EV1 and other leading technologies.

Additionally, iCLASS SE readers support Near Field Communication (NFC) smartphones via Seos, enabling a new class of portable identity credentials that can be securely provisioned and safely embedded into both fixed and mobile devices.

As part of HID Global's iCLASS SE platform – based on HID's Secure Identity Object™ (SIO) data model and Trusted Identity Platform® (TIP™) – the powerfully secure iCLASS SE readers offer advanced features such as multi-layered security beyond the card technology and tamper-proof protection of keys/cryptographic operations using EAL5+ secure element hardware.

POWERFULLY SECURE:
- Multi-Layered Security – Ensures data authenticity and privacy through the multi-layered security of HID's SIO.
- EAL5+ Certified Secure Element Hardware – Provides tamper-proof protection of keys/cryptographic operations.
- SIO Data Binding – Inhibits data cloning by binding an object to a specific credential.
- Secured communications using OSDP with Secure Channel Protocol.
- Expanded iCLASS Elite™ Program – Extends private security by protecting uniquely keyed credentials, SIOs and programming update keys.

HIGHLY ADAPTABLE:
- Near Field Communication (NFC) Card Emulation – Enables migration to HID access control on mobile devices.
- SIO Portability – Provides technology independence and portability to other smart card technologies.

- Allows for support of future technologies.

SUSTAINABILITY AND MANAGEMENT:
- Intelligent Power Management (IPM) – Reduces reader power consumption by as much as 75% compared to standard operating mode.
- Recycled Content – Contributes toward building LEED credits.
- Central management of connected readers using OSDP.

PERFORMANCE:
- SIO Media Mapping – Simplifies deployment of third-part objects to multiple types of credentials.
- Field Programmable Readers – Provides secure upgrades for migration and extended lifecycle.
- RGB LEDs – Delivers increasing capability to notify users and troubleshooters regarding system state.

SPECIFICATIONS

Model Name	R10	R15	R30	R40	RK40
Base Part Number	900N	910N	930N	920N	921N
	13.56 MHz Single Technology ID-1 Credentials (Cards) – SIO Data Model				
Typical Read Range* (inches)	iCLASS® SE™: 2.8″ (7.1 cm) SE for DESFire® EV1: 1.6 (4.1 cm) SE for MIFARE® Classic: 2.6″ (6.6 cm)	iCLASS SE: 2.6″ (6.6 cm) SE for DESFire EV1: 1.6 (4.1 cm) SE for MIFARE Classic: 2.5″ (6.4 cm)	iCLASS SE: 3.3″ (8.4 cm) SE for DESFire EV1: 1.6 (4.1 cm) SE for MIFARE Classic: 2.7″ (6.9 cm)	iCLASS SE: 3.5″ (8.9 cm) SE for DESFire EV1: 1.8″ (4.6 cm) SE for MIFARE Classic: 2.8″ (7.1 cm)	iCLASS SE: 3.4″ (8.6 cm) SE for DESFire EV1: 1.6 (4.1 cm) SE for MIFARE Classic: 2.9″ (7.4 cm)
	13.56 MHz Single Technology Tags/Fobs – SIO data Model				
	iCLASS SE: 1.5″ (3.8 cm) SE for MIFARE Classic: 1.2″ (3.0 cm)	iCLASS SE: 1.1″ (2.8 cm) SE for MIFARE Classic: 0.8″ (2.0 cm)	iCLASS SE: 1.7″ (4.3 cm) SE for MIFARE Classic: 1.2″ (3.0 cm)	iCLASS SE: 1.8″ (4.6 cm) SE for MIFARE Classic: 1.4″ (3.6 cm)	iCLASS SE: 1.4″ (3.6 cm) SE for MIFARE Classic: 0.5″ (1.3 cm)
Mounting	Mini-Mullion Size; physically HID's smallest iCLASS® readers and are ideally suited for mullion-mounted door installations, U.S. single-gang J-box (with mud ring) or any flat surface	Mullion Size; physically HID's second smallest iCLASS readers and are ideally suited for mullion-mounted door installations, U.S. single-gang J-box (with mud ring) or any flat surface	EU / APAC Square Size; 83.8 mm (3.3″) square reader is designed to mount to and cover standard European and Asian back boxes	Wall Switch Size; designed to mount and cover single gang switch boxes primarily used in the Americas and includes a slotted mounting plate for European and Asian back box spacing	
Color	Black or Gray				
Keypad	No				Yes (4x3)
Dimensions	1.9″ x 4.1″ x 0.9″ 4.8 cm x 10.3 cm x 2.3 cm	1.9″ x 6.0″ x 0.9″ 4.8 cm x 15.3 cm x 2.3 cm	3.3″ x 3.3″ x 0.9″ 8.4 cm x 8.4 cm x 2.3 cm	3.3″ x 4.8″ x 1.0″ 8.4 cm x 12.2 cm x 2.4 cm	3.3″ x 4.8″ x 1.1″ 8.5 cm x 12.2 cm x 2.8 cm
Product Weight (Pigtail)	3.9 oz (113g)	5.3 oz (151g)	5.2 oz (148g)	7.7 oz (220g)	9.0 oz (256g)
Product Weight (Terminal Strip)	2.9 oz (84g)	4.2 oz (120g)	4.0 oz (116g)	7.5 oz (215g)	8.0oz (226g)
Operating Voltage Range	5-16 VDC, Linear supply recommended				
Current Draw - Standard Power Mode*** (mA)	45	45	65	65	100
Current Draw - Intelligent Power Management (IPM) Mode*** (mA)	25	25	25	25	65
Peak Current Draw - Standard Power or IPM Mode*** (mA)	75	75	105	105	130
NSC** Power Consumption - Standard Power Mode (W @ 16VDC)	0.7	0.7	1	1	1.6
NSC** Power Consumption - w/ IPM (W @ 16VDC)	0.4	0.4	0.4	0.4	1
Operating Temperature	-31º to 150º F (-35º to 65º C)				
Storage Temperature	-67º to 185º F (-55º to 85º C)				
Operating Humidity	5% to 95% relative humidity non-condensing				
Environmental Rating	IP55				
Transmit Frequency	13.56 MHz				
13.56 MHz Card Compatibility	Secure Identity Object™ (SIO) on iCLASS SE/SR, SE for MIFARE DESFire EV1 and SE for MIFARE Classic (On by Default) Non-default programmable options include: additionally support - standard iCLASS Access Control Application (order with Standard interpreter) -ISO14443A (MIFARE) CSN, ISO14443B CSN, ISO15693 CSN -ISO14443A/B (FIPS-201 Transparent FASC-N Read) (order -F model with FIPS interpreter)				
Communications	Optional OSDP with SCP over RS485 Wiegand/Clock-and-Data Interface 500ft (150m) (22AWG) - Use Shielded cable for best results				
Panel Connection	Pigtail or Terminal Strip				
Certifications	UL294/cUL**** (US), FCC Certification (US), IC (Canada), CE (EU), C-tick (Australia, New Zealand), SRRC (China), MIC (Korea), NCC (Taiwan), iDA (Singapore), RoHS, FIPS-201 Transparent FASC-N Reader				
Cryto Processor Hardware Common Criteria Rating	EAL5+				
Patents	US7124943, US6058481, US6337619				
Housing Material	UL94 Polycarbonate				
Manufactured with % of recycled content (Pigtail)	10.5%	11.0%	11.0%	10.5%	10.9%
Manufactured with % of recycled content (Terminal Strip)	11.0%	11.5%	10.5%	11.0%	12.4%
UL Ref Number	R10D	R15D	R30D	R40D	RK40D
Warranty	Limited Lifetime				

*   *Typical read range achieved in air. Different types of metal will cause some degradation (typically up to 20%). Use spacers to space product off metal and improve read range if required.*
**   *NSC = Normal Standby Current*
***   *Measured in accordance with UL294 standards*
****   *UL294 functionally certified for Wiegand output only*