PHYSICAL ACCESS SOLUTIONS

iCLASS SE® Readers

HIGHLY ADAPTABLE AND SECURE HIGH FREQUENCY ACCESS CONTROL SOLUTION

- **Powerfully Secure –** Provides layered security beyond the card media for added protection to identity data using SIOs.
- **Adaptable –** Interoperable with a growing range of technologies and form factors including mobile devices utilizing Seos®.
- **Interoperable –** Open Supervised Device Protocol (OSDP) for secure, bidirectional communication.
- **Versatile -** Extended read range is available for applications such as parking and gate control solutions.

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® 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.

As part of HID Global's iCLASS SE platform for advanced security, the readers utilize state-of-the-art authentication through the platform's Secure Identity Object (SIO) data model for trusted and secure communication between the card and reader to prevent unauthorized access. The iCLASS SE reader line is built on the Security Industry Association (SIA) Open Supervised Device Protocol (OSDP) standard which also ensures secure transmission of data from the reader to the controller.

Additionally, iCLASS SE readers support mobile devices utilizing Seos, enabling a new class of portable identity credentials that can be securely provisioned and safely embedded into both fixed and mobile devices.

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.
- Secured communications using OSDP with Secure Channel Protocol.
- Expanded iCLASS Elite™ Program – Extends private security by protecting uniquely keyed credentials, SIOs and programming keys.

HIGHLY ADAPTABLE:
- Mobile device support using iCLASS Seos - enabling HID access control.
- Flexible to support future technologies.
- Field Programmable Readers – Provides secure upgrades for migration and extended lifecycle.

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.

INTEROPERABLE:
- SIO Media Mapping – Simplifies deployment of third-party objects to multiple types of credentials.
- Industry standard communications using OSDP.
- Custom programming support to read models on MIFARE and MIFARE DESFire EV1 credentials

SPECIFICATIONS

Model Name	R10	R15	R30	R40	RK40	R90
Base Part Number	900N	910N	930N	920N	921N	940N
Typical Read Range[1] (inches)	**13.56 MHz Single Technology ID-1 Cards – SIO Data Model**					
	iCLASS SE®: 3″ (7.6 cm) SE for DESFire® EV1: 2″ (5.1 cm) SE for MIFARE® Classic: 2.3″ (5.8 cm)	iCLASS SE: 3″ (7.6 cm) SE for DESFire EV1: 2″ (5.1 cm) SE for MIFARE Classic: 2.3″ (5.8 cm)	iCLASS SE: 3.5″ (8.9 cm) SE for DESFire EV1: 2″ (5.1 cm) SE for MIFARE Classic: 3″ (7.6 cm)	iCLASS SE: 4.5″ (11.4 cm) SE for DESFire EV1: 3.3″ (8.4 cm) SE for MIFARE Classic: 3.5″ (8.9 cm)	iCLASS SE: 5″ (12.7 cm) SE for DESFire EV1: 2.3″ (5.8 cm) SE for MIFARE Classic: 4.5″ (11.4 cm)	iCLASS: 15.0″ (39.37 cm) SE for DESFire EV1: 6.5″ (17.5 cm) SE for MIFARE Classic: 10.0″ (26.4 cm)
	13.56 MHz Single Technology Tags/Fobs – SIO data Model					
	iCLASS SE: 1.3″ (3.3 cm) SE for MIFARE Classic: 0.5″ (1.3 cm)	iCLASS SE: 1.3″ (1.3 cm) SE for MIFARE Classic: 0.5″ (1.3 cm)	iCLASS SE: 2″ (5.1 cm) SE for MIFARE Classic: 1.5″ (3.8 cm)	iCLASS SE: 1.8″ (4.6 cm) SE for MIFARE Classic: 1.5″ (3.8 cm)	iCLASS SE: 1.8″ (4.6 cm) SE for MIFARE Classic: 1.5″ (3.8 cm)	iCLASS: 8.0″ (20.32 cm) SE for MIFARE Classic: 4.1″ (10.4 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	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	Mounts on any standard back boxes or any flat surface
Color	Black or Gray					Black
Keypad	No				Yes (4x3)	No
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	13.1″ x 13.1″ x 1.55″ 33.3cm x 33.3cm x 3.9cm
Product Weight (Pigtail)	3.9 oz (113g)	5.3 oz (151g)	5.2 oz (148g)	7.7 oz (220g)	9.0 oz (256g)	N/A
Product Weight (Terminal Strip)	2.9 oz (84g)	4.2 oz (120g)	4.0 oz (116g)	7.5 oz (215g)	8.0oz (226g)	4lb 1oz (1844g)
Operating Voltage Range	5-16 VDC				5-16 VDC	12 VDC or 24 VDC
Current Draw - Standard Power Mode[2] (mA)	60 @ 16V	60 @ 16V	65 @ 16V	65 @ 16V	85 @ 16V	110 @ 12V
Current Draw - Intelligent Power Management (IPM) Mode[2] (mA)	35 @ 16V	35 @ 16V	40 @ 16V	40 @ 16V	60 @ 16V	30 @ 12V
Peak Current Draw - Standard Power or IPM Mode[2] (mA)	200 @ 16V	200 @ 16V	200 @ 16V	200 @ 16V	220 @ 16V	300 @ 12V
NSC[3] Power Consumption - Standard Power Mode	1.0 @ 16V	1.0 @ 16V	1.0 @ 16V	1.0 @ 16V	1.4 @ 16V	1.3 @ 12V
NSC[3] Power Consumption - w/ IPM	0.6 @ 16V	0.6 @ 16V	0.6 @ 16V	0.6 @ 16V	1 @ 16V	.4 @ 12V
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	Indoor/Outdoor IP55; IP65 if installed with optional gasket					IP65
Transmit Frequency	13.56 MHz					
13.56 MHz Card Compatibility	Secure Identity Object™ (SIO) on iCLASS Seos, iCLASS SE/SR, MIFARE DESFire EV1 and MIFARE Classic (On by Default) - MIFARE and MIFARE DESFire EV1 custom data models - standard iCLASS Access Control Application (order with Standard interpreter) - ISO14443A (MIFARE) CSN, ISO14443B CSN, ISO15693 CSN - FeliCa™[4] CSN, CEPAS[4] CSN or CAN					
Communications	Wiegand, Clock-and-Data, Open Supervised Device Protocol (OSPD) via RS485					
Panel Connection	Pigtail or Terminal Strip					Terminal Strip
Certifications	UL294/cUL (US), FCC Certification (US), IC (Canada), CE (EU), RCM (Australia, New Zealand), SRRC (China), KCC (Korea), NCC (Taiwan), iDA (Singapore), RoHS, FIPS201 Transparent FASC-N Reader[4], MIC (Japan)[4]					
Cryto Processor Hardware Common Criteria Rating	EAL5+					
Patents	www.hidglobal.com/patents					
Housing Material	UL94 Polycarbonate					
Manufactured with % of recycled content (Pigtail)	10.5%	11.0%	11.0%	10.5%	10.9%	N/A
Manufactured with % of recycled content (Terminal Strip)	11.0%	11.5%	10.5%	11.0%	12.4%	11.00%
UL Ref Number	R10E	R15E	R30E	R40E	RK40E	R90E
Warranty	Limited Lifetime					

1 *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.*
2 *Measured in accordance with UL294 standards; See Installation Guide for Details*
3 *NSC = Normal Standby Current; See Installation Guide for Details*
4 *Not available on R90 Model*

hidglobal.com
North America: +1 512 776 9000
Toll Free: 1 800 237 7769
Europe, Middle East, Africa: +44 1440 714 850
Asia Pacific: +852 3160 9800
Latin America: +52 55 5081 1650

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