**HID**®

# multiCLASS 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.
- **Streamlined Migration** – Simultaneous support for 125 kHz HID Prox®, AWID and EM4102 for seamless migration; field programmable for secure upgrades and extended lifecycle.

multiCLASS 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.

multiCLASS SE® readers simplify migration from legacy technologies with support 125 kHz for HID Prox, Indala, AWID and EM4102, and 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 and

MIFARE DESFire EV1 with custom data models and other leading technologies.

Additionally, multiCLASS 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.

As part of HID Global's iCLASS SE platform that is based on the Secure Identity Object™ (SIO®) data model and Trusted Identity Platform® (TIP™), the powerfully secure multiCLASS SE readers offer advanced features such as layered security beyond the card media 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.

**HIGHLY ADAPTABLE:**
- Mobile device support using card emulation - Enables HID access control.
- SIO Portability – Provides technology independence and portability to other smart card technologies.
- Upgradeable Hardware Connection – Allows all Wiegand-based communication readers to expand communication capabilities to OSDP, Hi-O and other bidirectional protocols.
- Field Programmable Readers – Provides secure upgrades for migration and extended lifecycle.

- Customization and management from a central location – Enables organization to make changes and manage all attached OSDP readers over RS485 wiring.
- Simultaneous support for 125kHz HID Prox, AWID and EM4102.
- 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.

**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 custom data models on MIFARE and MIFARE DESFire EV1 credentials.

## SPECIFICATIONS

| | RP10 | RP15 | RP40 | RPK40 |
|---|---|---|---|---|
| **Base Part Number** | 900P<br>900L | 910P<br>910L | 920P<br>920L | 921P<br>921L |
| **Typical Read Range¹** | *13.56 MHz Single Technology ID-1 Cards – SIO Model Data* | | | |
| | iCLASS Seos: 0.8" (2 cm)<br>iCLASS: 3.1" (8 cm)<br>MIFARE Classic: 2.8" (7 cm)<br>MIFARE DESFire EV1/EV2: 1.2" (3 cm) | iCLASS Seos: 0.8" (2 cm)<br>iCLASS: 3.1" (8 cm)<br>MIFARE Classic: 2.8" (7 cm)<br>MIFARE DESFire EV1/EV2 1.2" (3 cm) | iCLASS Seos: 1.2" (3 cm)<br>iCLASS: 4.7" (12 cm)<br>MIFARE Classic: 4.7" (12 cm)<br>MIFARE DESFire EV1/EV2: 2.0" (5 cm) | iCLASS Seos: 0.8" (2 cm)<br>iCLASS: 4.7" (12 cm)<br>MIFARE Classic: 4.3" (11 cm)<br>MIFARE DESFire EV1/EV2 1.6" (4 cm) |
| | *13.56 MHz Single Technology Tags/Fobs⁵ – SIO Data Model* | | | |
| | iCLASS: 1.6" (4 cm)<br>MIFARE Classic: 1.2" (3 cm) | iCLASS: 1.6" (4 cm)<br>MIFARE Classic: 1.2" (3 cm) | iCLASS: 2.4" (6 cm)<br>MIFARE Classic: 2.0" (5 cm) | iCLASS: 2.8" (7 cm)<br>MIFARE Classic: 1.6" (4 cm) |
| | *125 kHz Single Technology ID-1 Cards* | | | |
| | HID Prox: 2.8" (7 cm)<br>Indala Prox: 1.6" (4 cm)<br>EM4102 Prox: 4.3" (11 cm) | HID Prox: 2.8" (7 cm)<br>Indala Prox: 1.6" (4 cm)<br>EM4102 Prox: 4.3" (11 cm) | HID Prox: 2.8" (7 cm)<br>Indala Prox: 2.0" (5 cm)<br>EM4102 Prox: 4.3" (11 cm) | HID Prox: 2.8" (7 cm)<br>Indala Prox: 2.0" (5 cm)<br>EM4102 Prox: 3.1" (8 cm) |
| | *125 KHz Single Technology Tags/Fobs* | | | |
| | HID Prox: 1.6" (4 cm)<br>Indala Prox: 0.8" (2 cm)<br>EM4102 Prox: 2.8" (7 cm) | HID Prox: 2.0" (5 cm)<br>Indala Prox: 0.8" (2 cm)<br>EM4102 Prox: 2.8" (7 cm) | HID Prox: 2.0" (5 cm)<br>Indala Prox: 1.2" (3 cm)<br>EM4102 Prox: 2.8" (7 cm) | HID Prox: 1.6" (4 cm)<br>Indala Prox: 1.2" (3 cm)<br>EM4102 Prox: 2.4" (6 cm) |
| **Mounting** | Ideally suited for mullion-mounted door installations or any flat surface | | 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 | |
| **Mounting Spacer** | To be used when mounting on metallic surfaces, refer to How To Order Guide for part numbers | | | |
| **Color** | Black | | | |
| **Keypad** | No | | | Yes (4x3) |
| **Dimensions** | 1.9" x 4.1" x 0.9"<br>4.8 cm x 10.3 cm x 2.3 cm | 1.9" x 6.0" x 0.9"<br>4.8 cm x 15.3 cm x 2.3 cm | 3.3" x 4.8" x 1.0"<br>8.4 cm x 12.2 cm x 2.4 cm | 3.3" x 4.8" x 1.1"<br>8.5 cm x 12.2 cm x 2.8 cm |
| **Product Weight (Pigtail)** | 4.0oz (114g) | 5.2oz (149g) | 7.8oz (222g) | 9.1oz (258g) |
| **Product Weight (Terminal Strip)** | 3.0oz (85g) | 4.3oz (124g) | 7.6oz (216g) | 8.0oz (228g) |
| **Operating Voltage Range** | 5-16 VDC, Linear supply recommended | | | |
| **Current Draw - Standard Power Mode² (mA)** | 75 | 75 | 85 | 95 |
| **Current Draw - Intelligent Power Management (IPM) Mode² (mA)** | 40 | 40 | 50 | 70 |
| **Peak Current Draw - Standard Power or IPM Mode² (mA)** | 200 | 200 | 200 | 200 |
| **NSC³ Power Consumption - Standard Power Mode (W @ 16VDC)** | 1.2 | 1.2 | 1.4 | 1.5 |
| **NSC³ Power Consumption - w/ IPM (W @ 16VDC)** | 0.6 | 0.6 | 0.8 | 1.1 |
| **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** | Indoor/Outdoor IP55; IP65 if installed with optional gasket (IP65GSKT) | | | |
| **Transmit Frequency** | 13.56 MHz & 125 kHz | | | |
| **13.56 MHz Card Compatibility** | Secure Identity Object™ (SIO®) on iCLASS Seos, iCLASS SE/SR, MIFARE DESFire EV1 and MIFARE Classic (On by Default)<br>- standard iCLASS Access Control Application (order with Standard interpreter)<br>-ISO14443A (MIFARE) CSN, ISO14443B CSN, ISO15693 CSN<br>- MIFARE Classic and MIFARE DESFire EV1 custom data models<br>- FeliCa™⁴ CSN, CEPAS⁴ CSN or CAN<br>- MIFARE DESFire EV2 via EV1 backward compatibility | | | |
| **125 kHz Card Compatibility** | HID Prox⁴, AWID⁴, Indala, EM4102⁴ | | | |
| **Communications** | Optional OSDP with SCP over RS485⁴<br>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)⁴, NCC (Taiwan)⁴, iDA (Singapore)⁴, RoHS | | | |
| **Cryto Processor Hardware Common Criteria Rating** | EAL5+ | | | |
| **Patents** | US7180403, US7439862, US7124943, US5952935, US6058481, US6337619 | | | |
| **Housing Material** | UL94 Polycarbonate | | | |
| **Manufactured with % of recycled content (Pigtail)** | 10.5% | 11.0% | 10.5% | 10.9% |
| **Manufactured with % of recycled content (Terminal Strip)** | 10.5% | 11.0% | 11.0% | 12.3% |
| **UL Ref Number** | RP10E | RP15E | RP40E | RPK40E |
| **Warranty** | Limited Lifetime | | | |

¹ Read range listed is statistical mean rounded to nearest whole centimeter. 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.
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 9xxL part numbers.
⁵ Supported Tags/Fobs - iCLASS, and MIFARE Classic

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