

k1 Dual Technology Contactless Smart Card Reader is a user-friendly and highly secure physical access control reader. It is waterproof and made of high-quality materials to enhance reliability and longevity, hence suitable for both indoor and outdoor installations.

The reader offers high-security data encryption output. When working with ACX 2080 Gateway or ACX Data Exchanger, it guarantees that the data cannot be intercepted by external devices. This effectively resolves the Wiegand signal transmission issue, ensuring data integrity and confidentiality.

The embedded Bluetooth technology also allows for reading encrypted virtual credential numbers from both Android and iPhone devices.







## **FEATURES**

- Bluetooth and Contactless Dual Technology Reader
- Optical sensor for tamper protection, "I Am Alive" feature
- Support 125KHz, 13.56MHz ISO 14443 A, B & ISO15693, Bluetooth 4.0
- Red / Green / Blue or mixed color LED Circle Ring for visual notification
- User-defined reader's access granted and access denied LED & Buzzer ON / OFF time interval
- Wiegand, OSDP standard, OSDP secure and the ACX proprietary scramble encryption format
- Waterproof IP65



## CARD TECHNOLOGY

| Card Technology    | Card Number Output        | Item No. ( RF / RF+BLE ) |
|--------------------|---------------------------|--------------------------|
| HID iCLASS         | 32 ~ 64 bits CSN          | K111 / K1T1              |
| HID 125 KHz        | HID card number           | K112 / K1T2              |
| EM                 | 32 bits CSN               | K113 / K1T3              |
| Mifare Classic     | 32 ~ 56 bits CSN / Sector | K114 / K1T4              |
| SONY Felica CSN    | 32 ~ 64 bits CSN          | K115 / K1T5              |
| Mifare Plus S / X  | 32 ~ 56 bits CSN / Sector | K116 / K1T6              |
| Mifare DESFire EV1 | 32 ~ 56 bits CSN / Sector | K117 / K1T7              |
| LEGIC Advant       | 32 ~ 64 bits CSN / Sector | K118 / K1T8              |

## **SPECIFICATIONS**

| K1 Bluetooth and Contactless Smart Card Reader |  |  |
|--|--|--|
| Card Data Security                             | Max. 64 bits card number mixed with original CSN, custom AES 128 bits key data encryption, CRC16   |  |
| Reader Output                                  | Wiegand, OSDP standard, OSDP secure and the ACX proprietary scramble encryption format   |  |
| Typical Read Range                             | 125KHz: 5cm+, 13.56MHz: 4cm+; Bluetooth Technology: 2m to 10m<br>Typical read range achieved in air, different types of metal will cause some degration<br>Use spacers to space product off metal and improve read range if required |  |
| "I Am Alive"                                   | User-defined 1 byte "I Am Alive" data at a certain interval  |  |
| Reader Cable                                   | 10 wires. Power, Ground, D0, D1, ACK, Buzzer, hold, RS485(A), RS485(B), spare  |  |
| Mounting                                       | Wall switch size, designed to mount and cover single-gang switch boxes primarily used in the Americas. It includes a slotted mounting plate for European and Asian back box spacing  |  |
| Visual Indicator                               | LED circle ring in Red / Green / Blue / Amber / Purple / White / Light Purple color; user-defined LED ON / OFF time interval   |  |
| Audio Indicator                                | Internal buzzer, user-defined beep sound ON / OFF time interval (ms)   |  |
| Color  | Black or White   |  |
| Dimension                                      | 80mm x 115mm x 20mm  |  |
| Product Weight                                 | 120g   |  |
| Operating Voltage                              | 9-16 VDC, Linear supply recommended  |  |
| Operating Current                              | 100mA AVG, 120mA PEAK  |  |
| Operating Temperature                          | - 31° to 150° F (-35° to 65° C)  |  |
| Storage Temperature                            | - 67° to 185° F (-55° to 85° C)  |  |
| Operating Humidity                             | 5% to 95% relative humidity non-condensing   |  |
| Housing Material                               | Polycarbonate  |  |
| Cable Distance                                 | RS485 interface : 4000 feet (1200m) Recommended cable is ALPHA 1295 (22 AWG) 5 conductor minimum stranded with overall shield or equivalent  |  |