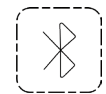# ACX | DESIGN INNOVATIONS

K11 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

CE IP65

DESIGN · INNOVATIONS

CARD TECHNOLOGY

Card Technology	Card Number Output	Item No. (RF / RF+BLE)
HID iCLASS	32 ~ 64 bits CSN	K411 / K4T1
HID 125 KHz	HID card number	K412 / K4T2
EM	32 bits CSN	K413 / K4T3
Mifare Classic	32 ~ 56 bits CSN / Sector	K414 / K4T4
SONY Felica CSN	32 ~ 64 bits CSN	K415 / K4T5
Mifare Plus S / X	32 ~ 56 bits CSN / Sector	K416 / K4T6
Mifare DESFire EV1	32 ~ 56 bits CSN / Sector	K417 / K4T7
LEGIC Advant	32 ~ 64 bits CSN / Sector	K418 / K4T8

SPECIFICATIONS

K11 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 Typical read range achieved in air, different types of metal will cause some degration 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	44mm x 115mm x 20mm
Product Weight	80g
Operating Voltage	9-16 VDC, Linear supply recommended
Operating Current	100mA AVG, 120mA PEAK
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
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