ACX | DESIGN INNOVATIONS

F1

Contactless Smart Card LCD Keypad Reader is a user-friendly and multi-technology 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 is equipped with touch sensor keypad technology and a LCD, which can display custom graphics or company name, date, time, card number, cardholder name, access grant/denied message.

Its Wiegand output means the reader can directly connect to any Wiegand door access controller, while the ACX scramble RS485 output ensures the data cannot be snooped by external devices.

FEATURES

- Waterproof IP65 Contactless Technology LCD Keypad Reader
- 125KHz, 13.56MHz & Bluetooth 2.4GHz, dual technologies in the reader
- 128 x 64 dots Characters LCD graphic display, green backlight
- LCD graphics display custom graphics, company name, date, time, access message or card number, multi-language supported
- Waterproof capacitive touch sensor technology, 3 x 4 Key, 0 to 9, *, #
- Internal real-time clock
- Red / Green / Blue or mixed color LED bar, user-defined LED ON / OFF time interval, LCD contrast adjustable
- Internal buzzer, user-defined buzzer ON / OFF time interval
- User-defined Wiegand pulse interval to serve different door access panels
- User-defined "I Am Alive" feature
- Touch sensor keypad, zero mechanical operation problems

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CARD TECHNOLOGY

Card Technology	Card Number Output	Item No. (RF / RF+BLE)
HID iCLASS	1 ~ 64 bits CSN ; HID card number	91HF01 / F111
HID 125 KHz	HID card number	91LF01 / F112
EM	1 ~ 40 bits CSN	91LF01 / F113
Mifare Classic 1K / 4K	1 ~ 56 bits CSN ; Custom data models	91HF01 / F114
SONY Felica CSN	1 ~ 64 bits CSN	91HF01 / F115
Miface Plus S / X	1 ~ 56 bits ; Custom data models	91HF01 / F116
Mifare DESFire EV1 / EV2	1 ~ 56 bits ; Custom data models	91HF01 / F117
LEGIC Prime / Advant	1 ~ 64 bits ; Custom data models	91HF01 / F118

SPECIFICATIONS

F1 Contactless Smart Card LCD Keypad Multi-Tech Reader	
Bluetooth	2.4 GHz Bluetooth 4.0
Reader Output	Wiegand, Clock and Data, OSDP in RS485, ACX Scramble in RS485
QR Code Min. Resolution	5 mil, 1 mil = 0.0254mm
Typical Read Range	Bluetooth Technology : 0.5m to 10m, 13.56 MHz ISO card : 4cm+, 125 KHz ISO card : 6cm+ Typical read range achieved in air; different types of metal will cause some degradation 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, applied for Wiegand interface
Reader Cable	Power, Ground, Wiegand D0 / Magnetic Card Format Data, Wiegand D1 / Magnetic Card Format Clock, Magnetic Card Format Card present, RS485(A), RS485(B), Green LED / Permission approval, buzzer, hold, signal mask line
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 line in Red / Green / Blue / Amber / Purple / White / Light Purple; 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	85mm x 130mm x 20mm
Product Weight	220g
Operating Voltage	9-16 VDC, Linear supply recommended
Operating Current	110mA AVG, 130mA PEAK
Operating Temperature	32º to 122º F (0º to 50º C)
Storage Temperature	23º to 140º F (-5º to 60º C)
Operating Humidity	5% to 95% relative humidity non-condensing
Certification	IP65, CE 0700, NCC, RoHS
Panel Connection	Pigtail
Housing Material	Polycarbonate
Cable Distance	Wiegand interface: 500 feet (150 m), RS485 interface: 4000 feet (1200 m) Recommended cable is ALPHA 1295 (22 AWG) 5 conductor minimum stranded with overall shield or equivalent
Reader Installation Height	It is recommended that the center of the card reader be 1.35 meters above the ground