Proximity Reader plus Keypad

Model: CPA-KPD-RDR
Output formats: Prox.Card Wiegand 26
Keypad 8 Bit Burst
The Prox. Card Output is customizable for other Wiegand formats
Power supply 8 to 24V DC
Power Consumption: Max 150mA
Transmitter/Receiver frequency: 125Khz
Mounting: Universal USA and Europe
Environment: IP68; 100% relative humidity
Dimensions: 49 x 220 x 32.9 (1.929”/ 8.661”/ 1.259”)
Anti-tamper Optical protection

Operations Modes

The CPA-KPD-RDR is equipped with 2 electronically interlocked devices. The Proximity Reader and the Piezoelectric Keypad.

CPA-KPD-RDR supports the following operation modes:

1. **Prox – Pin.** Present Prox card. The unit will read the content and send it over the Data wires to the host.
Enter PIN code.
The unit will send each digit over the same Data wires to the host. The Keypad and the Prox reader are interlocked so that when one is functioning the other is inhibited until the data is transmitted.

2. **Prox Only.** The prox electronics is independently communicating via Data wires.

Verification
Power up the unit. During the first 2 seconds the unit will activate the buzzer and the Yellow LED 3 times. At the same time the RED or the Green LED will come ON depending on the Central Computer setup.
Present a valid HID encrypted card at 5 cm distance maximum. The unit will activate the Buzzer and the Yellow Led once.

COLOR	FUNCTION	ELECTRICAL FUNCTION
Red	*Input Voltage*	*8 to 24 VDC*
Black	*Ground*	
Green	*Data 0*	*Open collector 1 Kohm pull-up to internal +5V*
White	*Data 1*	*Open collector 1 Kohm pull-up to internal +5V*
Brown	*LED Input*	*Do not apply voltage*
Blue	*CCTV Output*	*Open collector 0,1 A activated with each key for 30 sec*
Violet	*Housing Ground*	
Orange	*Buffered Input*	*Do not apply voltage*
Grey	*Tamper Output*	*Open collector 0,1 A “Low” when light sensed*

26 Bit Wiegand Specifications

When the LED control input is pulled low, the GREEN LED will be ON and the RED LED will be OFF. When the input goes high the RED LED is ON and the GREEN LED is OFF. The RED or GREEN LED will flash with each key press.
The LED control input is pulled to the internal +5v with a 2.2K resistor.
The data is sent at 2 millisecond. per bit with a pulse duration of 70 µsec.
A Buzzer beeps with each key press.

Data Format

PIN data in 8 Bit burst output format:

Each Key press generates the defined 8 bit Output as shown in table below:

KEY	OUTPUT	KEY	OUTPUT
0	*11110000*	*6*	*10010110*
1	*11100001*	*7*	*10000111*
2	*11010010*	*8*	*01111000*
3	*11000011*	*9*	*01101001*
4	*10110100*	*	*01011010*
5	*10100101*	#	*01001011*

Card data 26 WIEGAND output format.

P S S S S S S S S N N N N N N N N N N N N N N N P

BIT 1 2 9 10 25 26
BIT 1 is an even parity for the following 12 bits. The sum of bits 1-13 is even.
BITS 2-9 are the F/C the card presented from 000 to 255.
BITS 10-25 this is the card number presented .
Leading 0's are added as required. Bit 10 is most significant.
BIT 26 Odd parity over previous 12 bits. The sum of bits 14-26 is odd.

EXAMPLE: A card code of 123 entered:
1 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 1 1 1 1 0 1 1 1 (F/C 004)

The data is sent at 2 msec per bit with pulse duration of 70 µsec. A Buzzer beeps each time card is presented.

1. **Blue Wire** - PRESSING any key on the keypad will generate a 30 seconds 0.1 amp intermittent duty grounding output.

2. **Orange Wire** - When the Hold Line, Orange wire, is pulled "low", any codes entered on the keypad are stored in the buffer. When the Hold Line is released to logic "high" – the buffered code data is sent

3. **Grey Wire** - When the photodiode senses ambient light the wire is pulled "LOW"