ACCESS CONTROL ASM08025



MAGNETIC CARD READER WITH PIEZOELECTRIC KEYPAD Model: ASM0802S Output formats: Magnetic Card

Keypad Power Supply: Power Consumption: Read Head : Environment: **Operating Temperature:** Dimensions: Mounting:

RAW data (Factory Default) & Wiegand 26 Field selectable 8 Bit 12 VDC Max 50 mA (25 mA typical) Card: Encoding 75 BPI, ANSI X4.16, Track 2 standard, Speed 3 to 50 ips. 500,000 passes typical. IP67; 95% relative humidity - 25 to + 70°C (-15 to 158 F) 140 x 74 x 33 (5,50 / 2.91 /1.30) Universal USA and EUROPE

Operation Modes:

The ASM0802S is equipped with 2 electronically interlocked devices. The Magnetic Card Reader and the Piezoelectric Keypad.

ASM supports the following operation mode:

Swipe a valid Magnetic Card bidirectional. 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 Magnetic reader are interlocked so that when one is functioning the other is inhibited until the data is transmitted. Card data and keypad data are separated by a minimum of 100 milliseconds.

CASM0802S121N is designed for reading standard or high coercivity magnetic stripe cards.

Verification

Power up the unit One of the LEDs, depending on the wiring, will light up immediately. After 3.5 seconds the RED or the Green LED will come ON depending on the Central Computer setup and the Buzzer will sound briefly.

Pass a valid magnetic

If a successful reading, the green LED will flash for 0.1 sec.

If unsuccessful reading the red LED will flash (if the red LED is off) and the buzzer will sound two bits to indicate error.

The LED input wire (Brown) can be pulled to 0 in order to switch LED function. And the buzzer input wire (Orange) may be used to test the Buzzer's input (pulled to 0).

Each key press will activate the Buzzer and flash the Red or Green Led (the one that inactive).

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 which of will flash with each key press. The LED control input is pulled to the internal +5v with a 2.2K resistor

Programming the unit for Wiegand 26 or for RAW data

The unit default is RAW data. Programming the unit is possible during the first 3 seconds of the power up. Press 1 for Wiegand, 2 for RAW data. The setup is stored in the nonvolatile memory.



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Wiring				
COLOR	FUNCTION	ELECTRICAL FUNCTION		
RED	Input Voltage	12 VDC		
BLACK	Ground			
GREEN	Data 0	Open collector 1Kohm pull-up to internal +5V		
WHITE	Data 1	Open collector 1Kohm pull-up to internal +5V		
BROWN	LED Input	No Voltage Pull to 0 V to activate		
ORANGE	Buzzer + Buffered Input	Buzzer + Buffered Input activation 0V activated No Voltage		

Grounding the Reader:

To avoid having ESD (electrostatic discharge interfering with the operation of the reader, the reader casing shall be grounded. This can be accomplished be tying the mounting bracket to earth ground locally(e.g. grounded conduit).

WIEGAND SPECIFICATIONS

The data is sent at 2 millisecond. per bit with a pulse duration of 70 µsec. A Buzzer beeps with each key press.

PIN data in 8 Bit output format:

DATA FORMAT

Each Key press generates the defined 8 bit Output as shown: KEY OUTPUT KEY Output 10110000 6 10110110 0 00110001 7 00110111 1 2 00110010 8 00111000 3 10110011 9 10111001 4 00110100 * 00101010 5 10110101 # 00100011

Card data WIEGAND 26 output format.

	Facility Code		User ID	
Digit in mag card	Digits	Range	Digits	User ID 26-bit Range
8	1-3	000-255	4-8	00000-65535
9	1-3	000-255	4-9	00000-65535
10	1-4	000-255	5-10	00000-65535
11	1-5	000-255	6-11	00000-65535

Card data WIEGAND 26 output format.

PSSSSSSS NNNNNNNNNNNN P 9 10

BIT 12 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.

Passing card from up to down will output raw format: 8 pulses Data 0 BXXXXXF<LRC> and 12 pulses Data 0 after Passing card from down to up will output raw format: 12 pulses Data 0 BXXXXXXF<LRC> and about 8 pulses

