

# SSA-S1000 Operating Description

## 1. Power

### 1.1 5V power

-Input 12V voltage is changed to 5V through the U24 (CAT7105) regulator and supplied to all of the IC.

### 1.2 12V Power

-The DC +12 power from external is used only for 5V switch regulator input through power filter(B2) and safety capacitor(C1, C2).

## 2. Communication

2.1 The SSA-S1000 supports RS-485 communication and it is achieved by U20 (Max1483).

## 3. Reader

3.1 The SSA-S100 has 1 reader inside and RD\_D0, RD\_D1 signal line for receiving Weigand signal. The Weigand signal is connected to the input port of the microprocessor (U21).

## 4. Input

4.1 The SSA-S1000 has 4 input ports, and the malfunction by noise is protected by reverse diode and opamp.

Input is not interrupt method. The mcu checks input status regularly, and generated input is transmitted to the GPIO of the microprocessor (U21).

## 5. Output

5.1 The SSA-S1000 has 2 output ports.

5.2 The TTL output in door contact is input into Base of Q4 that transistor Q4 and Q5 is connected to darlington. TTL output status is normally not operated by transmitting Low signal to the Base signal of transistor (Q4), but at the output operation time High signal is accepted and operated.

5.3 The TTL output in Alarm contact is connected to the Base of transistor Q6.

TTL output status is normally not operated by transmitting Low signal to the Base signal of transistor (Q6), but at the output operation time High signal is accepted and operated.

5.4 The buzzer output is connected with buzzer after the clerk of microprocessor and the output signal become AND by the U25.

5.5 It has 18 light emitting diode. (9 pairs of the green's and red's)

Item	SSA-S1000
Users	512 Users
Power / Current	DC 12V / Max.110mA
Reading Time (Card)	30ms
Door Open Time	5sec. (Fixed)
Input Port	3ea: Exit Button, Door Sensor, Lock Type Select [Power fail Safe / Power Fail Secure]
Output Port	2ea : TR Output / DC 12V. Rating Max. 300mA Alarm Output, DC 12V. Rating Max. 1A Lock Output
LED Indicator	9 LED Indicators (Red and Green)
Beeper	Piezo Buzzer
Operating Temperature	-20°C to +50°C
Operating Humidity	10% to 90% Relative Humidity Non-Condensing
Color / Material	Silver with Black/ Polycarbonate
Dimension (W x H x D(mm))	45.0 x 122.0 x 25.0
Weight	130g
RF Specifications	Frequency : 125KHz
	Modulation : PSK
	No. of Channels : 1CH
	Output : Less than 65.80dBuA/m at a distance of 10m