HUAYUAN

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SU90 RS232 Interface Magnetic card reader

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I.   Brief Introduction

SU90 serial products are hand swipe operated magnetic card reading machine with RS232 interface, adopting high integrated magnetic card decoding chip. They have small electricity consumption and strong interference resistance. They comply with ISO-7811、7812 magnetic card decoding standard completely. It can read card bi-directionally, free to choose data with or without enter key and has intelligent lights to alert if card data is read correctly. Exquisite magnetic installation structure makes card reading more stable and reliable, which is our patented technology. Reasonable product design makes products small and compact.

II.   Technical Feature

Bi-direction card reading, high capacity program design, high card reading ability. Can free to choose enter key between data of each track. Can customize tract starting character. 3-Dimensional magnetic head design makes magnetic head contact well with cards, and ensures cards to have least abrasion.

Adopting arm suspension type magnetic head assembly method enables machine with soft elasticity and good hand feel. Elasticity will not change in 10,000,000 times, which greatly increases life span of magnetic head.

Installing magnetic head in the magnetic head box makes track position of magnetic

head more precise to ensure success card reading rate, and appearance of product looks more beautiful.

Specific integrated circuits guarantee AMP 15% of the card can work properly. Dual-track static current of the whole machine is below 4mA/5V.Strong interference resistance.

Precise electric circuit disposition can read high magnetic card at 4000Oe completely.

Magnetic head adopts platinum manganese alloy material, which makes it life span over 800,000 times

III. Environment Requirements

Subject	Specification
Work temperature and humidity	0 -50℃ , 20 - 90% RH
Storage temperature and humidity	-30 to 70℃ , less than 95% RH
Vibration	Amplitude 2mm , 2 G , 10-55Hz/min in x,y,z direction
Impact resistance	UP TO 30 G，11 msec

IV Model Number

Model No. List	
Model No.	Track
SU90-1	First track
SU90-2	Second track
SU90-3	Third track
SU90-1&2	Track 1 & 2
SU90-2&3	Track 2 &3
SU90-1&2&3	Track 1,2 & 3

V Technical data and Specification

5．1 Dimension and weight

Model No.	Length（mm）	Width(mm)	Height(mm)	Weight（g）
SU90	90	27	28	130g

Subject	Specification		
Track standard	Comply with ISO7811		
Decoding method	F2F (FM)		
Starting character	Track 1"%"	Track 2"？"	Track 3"+"
Card reading Data bit	Track 1　79 Characters (7-bit)	Track 2　40 Characters(5-bit)	Track 3　107 characters(5-bit)
Card thickness	0.2~0.84 mm		
Suitable Voltage	DC5V±0.5V		
Static current	10mA/5V		
Track reading width	1.5mm		
Magstripe passing speed	15 - 120 cm/sec (6-50inch/sec)		
Magnetic head life span	More than 800,000 passes		
Error rate	Lower than 0.5%		
Interface	RS232,USB,PS/2		

VI RS232 Communication Interface

Data type	Format
Baud rate	9600bps
Data bit	8 bit
Check bit	None
Stop bit	1 bit

Data packet format：（Suitable to all magnetic card reader）

Track 1 start character：％ End character：？
Track 2 start character：； End character：？

Track 3 start character：＋ End character：？

Enter key is end character of the whole data packet.

VII Wire Connection and Operation

Wire connection refers to the below details information:.

1)Power connector, set the interface to the PC's keyboard interface (power DC5V)

2)Indicator: card swiping succeeds
Light display data is being uploaded (If data is in uploading process, you must wait for data transfer is completed and then swipe card)

3)Data transfer interface, this interface to connect a PC's serial port (data upload)

Power interface and data transfer port, after the connection is completed, install the company's Rxx installer (080 426).If the installation is successful, please select the serial interface, enter the interface and open the serial port for testing. (Or use other serial port with serial assistant software testing)

RS232   Interface pin drawing

Lights indication:

1.   When power connects well, indication light will show green.
2.   When card swiping succeeds, indication light will blink one time.
When card swiping fails, indication light will blink continuously three times.

VIII Caution during operation

8.1 Cards should be inserted in the designated direction, and the speed of card inserting should be almost same.

8.2 Cards using on the standard machine should comply with ISO7811.

8.3 Magnetic track on the card should not have foreign material, scratch or incompatible default

8.4 Cards should not put in the position close to magnetic iron to avoid degaussing to card signal.

8.5 If you need to change the usage of products, please contact us or operate by technical person.

8.6 If you swipe card too hard or have trouble in swiping card, please clean magnetic head (Use cleaning cards).

VIIII Installation Structure Drawing

SU90 series installation structure drawing