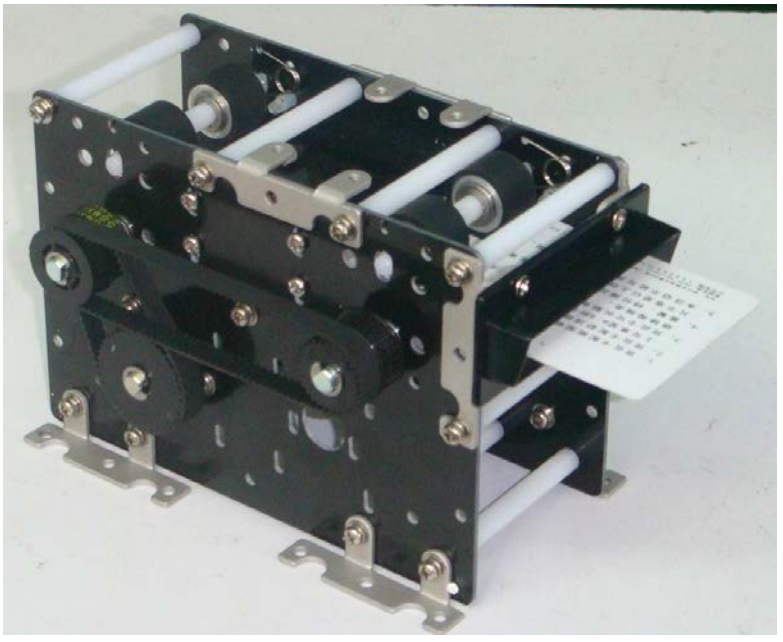
SM -TCR-615 Card collector

Technical Information



(Version) 1.00

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Contents

1. General Description

1.1 Description

The high strength and the anticorrosion material is used for TCR-615 card collector and which is produced in accord with the industry standard. The card collector is designed for requirement of the automatic ticket-check system The antenna installation place is reserved in advance with the function of selection of card recycling and avoid wrong acceptance and card following.

1.2 elementary functional Introduction

- With options to quit cards and callback cards if overtime under jamming
- With options to quit cards or callback cards in force under jamming
- With options to quit cards or not quit cards if overtime
- With options for the time of quitting cards if overtime
- With the function of avoiding wrong collection and card following. If the movements of the first card is not be finished, the second cards will not be collected
- The signal of enabling of monitor computer and open can be offered
- The validation or invalidation of cards can be received
- Sound and light alarm in error condition

1.3 Card material

All kinds of paper cards and PVC/ Mylar cards

1.4 Net of card collector

About 0.7kg Dimension:150L*95W*100Hmm

1.5 Collect time

About 2S

1.6 Electrical Specifications

Rating Voltage: 24VDC±10%

Current Consumption: Peak-2.2Amp

Static Consumption: 0.1Amp

1.7 Environmental Specification

Temperature: -40℃ to 85℃ （industrial）

Relative humidity: 30%-90%

Location: Within a suitable cabinet

1.8 control interface description

TTL electrical level control interface is offered by the TCR-615 card collector which is educed by

the CN1 of electrical outlet in the control broad. The socket connectors with 2.54 mm space between is used as electrical outlet.

1.8.1 Interface description

Description of pin of CN1

code of pin	Signal name	Signal description
1	GND （0 V）	power
2	+24V （DC）	
3	GND	0V
4	Receive	Low voltage is effective（the last time exceed 200ms）
5	Reject	Low voltage is effective （ the last time exceed200ms）
6	NC	non use
7	Enable	10K upward pull input， Low voltage is effective
8	NC	Non use
9	Received	Output open collector， Low voltage is effective （about500ms）
10	GetCard	Output open collector, Low voltage is effective
11	Rejected	Output open collector Low voltage is effective
12	jammed	Output open collector Low voltage is effective

1.8.2 Control signal description

Receive: the signal of receive is input when Getcard output is effective signal (low voltage). The card is collected into the warehouse （ with high voltage in the collecting procession）。 The signal can be trade as the input signal of card collecting in force under jamming.

Reject: When GetCard output is effective（low voltage）the reject signal is input， card is quitted （GetCard is high voltage within the quitting procession ）。The signal can be trade as

the input signal of card quitting in force under jamming.。

Enable: The card collector is permitted to work under low voltage。The card collector is prohibited under high voltage。The signal of enable can be used as the input of vehicles detector.

Received: The low voltages signal will be input with the width of 200ms .It can spring the opening of the road barrier after the card being received to the box.

GetCard：The pin will input the low voltage when card entry from the entrance of the card collector.The low voltage will last until the monitor computer sends the receiving/quitting signal or card quitted as to overtime.

Quitting card if overtime：the card will be quitted automatically and the "rejected" signal will be input after the waiting time exceed T1.The range of T1 is determined by the DIP1 and DIP2 of the switch S1：

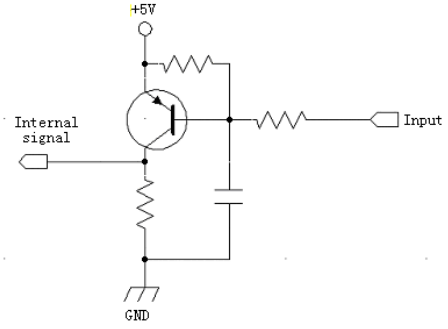
DIP1	OFF	OFF	ON	ON
DIP2	OFF	ON	OFF	ON
Time	rejection	3S	10S	30S

Rejected: The pin will input the low voltage signal (lasting about 200ms at least) until the cad is took away or took back after the card quitted to the entrance.

Jammed: Card-jammed or the card is in the reading place waiting for the signal of receiving/quitting.

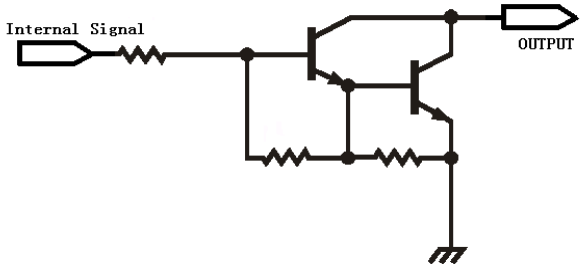
1.8.3 The sketch map of the interface

1.8.3.1 The circuit of the input port



Exclude to Receive and Reject signal, all electrical input are in low voltage with 200ms minimum, the debounce time is 100ms.

1.8.3.2 The circuit of the output port



Outputs to the host machine are all open collector transistors, maximum voltage 50V@200mA.

1.9 Card-quitting automatically

DIP4 of S1 = ON：start-up card-quitting automatically if card jammed

DIP4 of S1= OFF：card will not be quitted automatically if card jammed。

1.10 Time of card quitting automatically

DIP3 of S1 = ON, The overtime of card quitting is 10S

DIP3 of S1 = OFF, The overtime of card quitting is 5S。

1.11 Indication of the work condition

There is a buzzer with a LED on the control broad indicate the work condition.

After the self-inspection finished and the buzzer will input “toot” ”toot” and LED will flick along with the buzzer；

When the card collector is prohibited to work, LED will flick with 5Hz frequency , the buzzer will not alarm；

when the card collector is permitted to work and in free condition , LED will flick at 1Hz frequency, the buzzer will not alarm；

When the card collector is permitted and is in working condition, LED is bright and the buzzer will not alarm.

1. “RECEIVED “signal is output, the buzzer alarm “toot” after the RECEIVED signal。
2. When the signal of “REJECTED” is output and the time of which exceed 200ms, the buzzer input “toot-toot” ”toot-toot” continuously. LED is bright along with the sound until card is took away or took back.
3. when the JAM signal is output , no matter the card collector is prohibited or permitted ,the alarm will input “toot, toot, toot” ”toot, toot, toot” continuously, LED is flick along with the sound；

2. Safety and maintenance

1. Control circuitry must be cut to the machine when the host machine/cabinet is opened for servicing.

2. Sticking in Connection socket on power condition is prohibited and which is easy to damage the control circuit.

3. Overcorrect protection to the mechanism must be provided by the host machine。

4. Servicing and maintenance staff mist be adequately trained and aware of the hazards presented by the rollers and drive belts. The motor drives through a reduction gear creating sufficient torque to trap fingers, hair and clothing of the unwary.

5. Avoid the inclusion of foreign objects such as tape, rubber bands and wire as these could cause the machine to jam.

6. Keep mechanism clear of contaminants, Oily adhesive substance will seriously affect the performance of the dispenser.

7. Routine maintenance should be undertaken every 2 months or 10000 operations whichever is the sooner.

8. Using the TCC-100 clean the card alleyway and frictional wheel.

9. Spraying the cleaning fluid on the two side of the card equality to make sure the surface of the card humidity.

10. Folding the card-cleaned with the un-cleaned card alternatively.

11. Remove the rest card from the cartridge and then place the cleaning card into the cartridge.

12. Dispensing the card in the normal procession.

13. Repeating the 1-4 steps 1or 2 times and the cleaning work of the rubber tyres are finished.

14. Cleaning the dust on the photoelectric sensor with brush or dust remover.

15. The lubricating oil should be drop into the axis of rotation and the axle sleeve.

16. （Notice：the lubricating oil must not drop onto the synchronous belt, friction wheel and transportation wheel.）

3. The detailed rules of maintenance

3.1 Length of warranty for free is one year from the date of accepting the goods

3.2 The maintenance way is putting the machine to our company by the customer.

3.3 If the failure of hardware caused by the material under the normal using condition, the maintenance is for free. But exclude the following condition.

1) The failure or damage which caused by falling after purchasing

2) The failure or damage caused as to not in accord with the “user handbook”

3) The failure or damage caused not by the company employee or the customer

4) The failure or damage caused by the unstable power supply ；

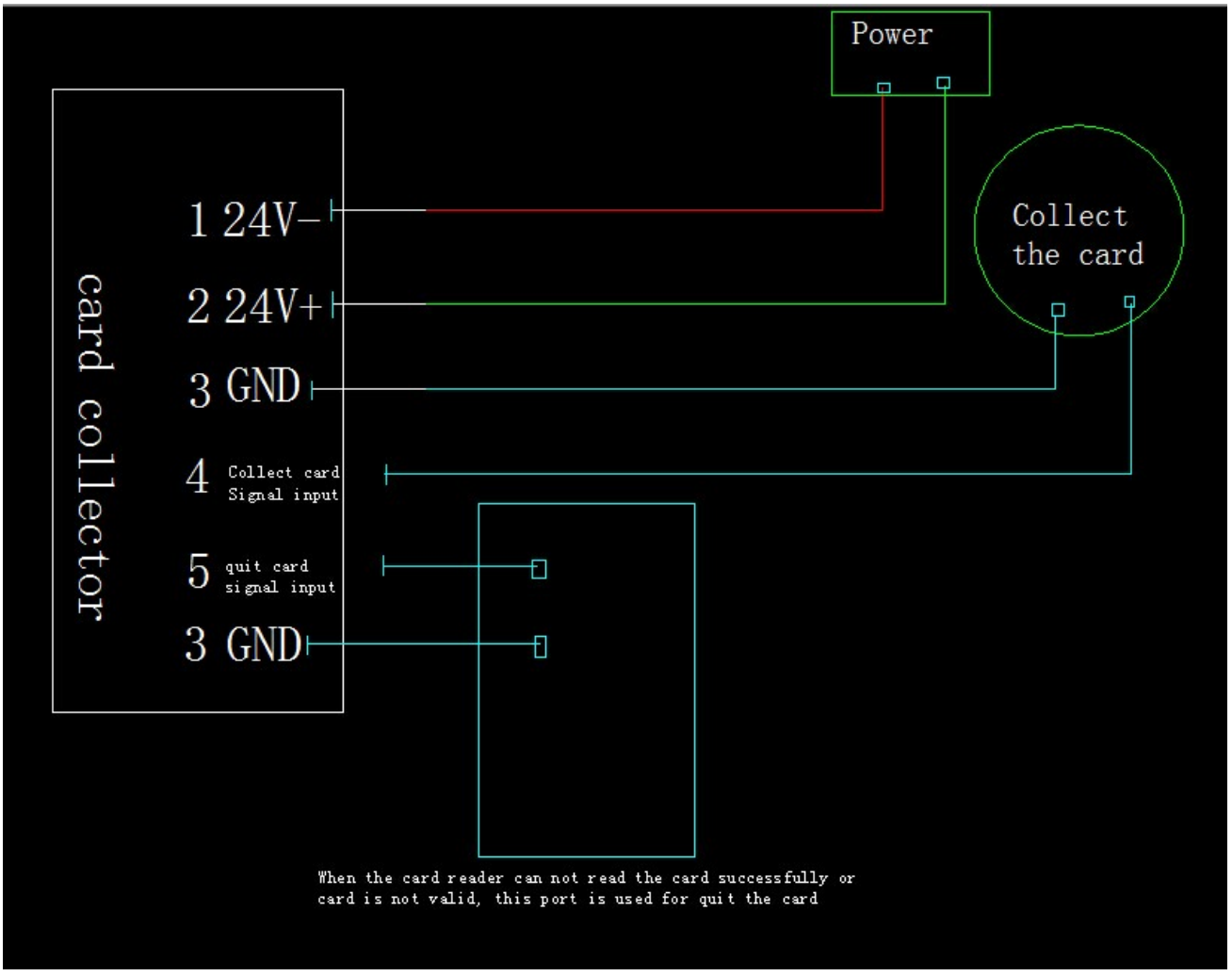
5) The failure or damage caused by the circuit any other equipment which is not suit for the card collector.

6) Failure and damage which caused by the force majeure such as water (fire) earthquake and so on.

3.4 The shell, wire, accessories and expendable are out of the range of maintenance.

3.5 If the label of the sale goods is damaged, and which is out of the range of maintenance.

3.6 The service also is offered after the length of warranty but the service charges should be paid for.


Power
card collector
1 24V-
2 24V+
3 GND
4 Collect card
Signal input
5 quit card
signal input
3 GND
Collect
the card
When the card reader can not read the card successfully or
card is not valid, this port is used for quit the card