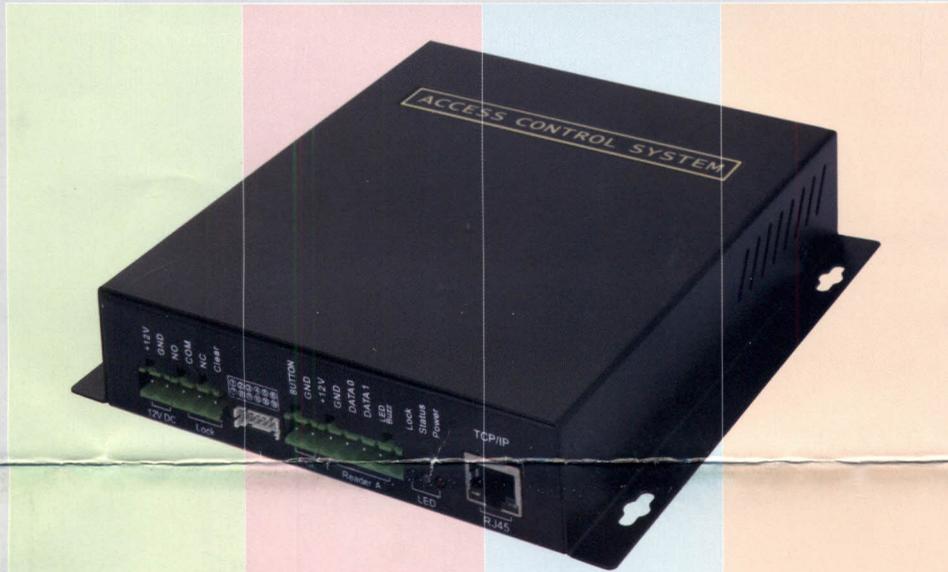# Competitive single door access controller

Competitive single door access controls have 2 kind of communication: RS485 or TCP/IP. We put a metal casing and put power supply(12V4A) inside to make the cost reduce much. It can connect 2 readers to realize door entry or exit by swiping card and anti pass back.



## Reliability
10 years experience

## Comprehensive
Network access control's all features

## Standard
Standard protocol and interface

## Quality
3 years' warranty

## CACS Parameter

User: 1000
Event: 60000
Alarm event: 60000
Communication: Rs485 or TCP/IP
Communication distance: 1200 meters or 100 meters
Card reader: Wiegand protocol
Door open method: Card, Card+PSW, PSW, double card, software, free pass, push button, door timer.

## CACS Standard interface

Card reader: 2
Alarm output: 1
Fire alarm input: 1
Release button: 1(or 2 as option)
Door sensor input: 1
Lock output: 1(or 2 as option)
Rs485 communication: 1

## CACS Basic parameter

Panel size: 135×105×22mm
Panel color: Deep blue
Panel weight: 150g
Metal box size: 180×167×37mm
Box color: Black
Box weight: 1.3KG

Working temperature: <60degree
Humidity: 10%--95%R.H
Working voltage: 12V
Working current: <80ma
Rated power: ≤5W
Data protection if no power supply: 10years

## Features

◇ Standard RS485 or TCP/IP communication with multilevel lightning protection and surge protection.
◇ Big Flash memory to keep data for 10 years if no power.
◇ All of chips are imported to meet industrial demand and wide working environment.
◇ All of inputs have optocoupler protection to assure stable system.
◇ Each door's time zone has as many as 16 groups, and each group can choose different verification methods.
◇ Support multi verifications:Card, card+PSW, PSW, double cards, free pass, door timer, timed alarm.
◇ Support remotely open or close door, fire alarm, alarm.
◇ Support anti pass back and global anti pass back.
◇ Support many kinds of events' alarm output like invalid card, invalid time, door alarm, or door
◇ open overtime.
◇ All of our access controllers are compatible with wiegand protocol like 26,34,37, and have optocoupler protection.
◇ Support the setting of each card's valid time.
◇ All of access control devices support RS485, TCP/IP controller's mixing installation.
◇ Support time attendance and on line guard tour function.
◇ Working with IP camera to realize network real time monitor and video capture.
◇ Access controllers include metal box, controller panel and 12V4A power supply.

## CACS Application area

Government, research institution,
Industrial and mining enterprises
Intelligent building, office building
Intelligent community, villas, apartment
Communication room
Turnstile control, car parking system
University, Hospital, Hotel

# Wiring diagram explanation

Wire from card reader to access controller: suggest using 8 core multi-strand twisted-pair shielded cable. 2 cables to be connected to 12V+, 2 cables to be connected to GND, GREEN line for D0, White line for D1, Blue line for LED/BUZZER line. Line diameter should be > 0.5mm, and the distance between reader and controller should be less than 60meters, shield line for access control's GND.

Wire from release button to access controller: Suggest 2 core line, line diameter should be >0.3mm.We can use 2 lines of 8 core network line.

Wire from lock to access controller: suggest using 2 core power supply line. Line diameter should be >1mm. If distance between lock and controller is >50 meters, we should use thicker line, or use more lines for example 2 lines or more for lock's 12V line, and 2 lines or more for lock's GND.
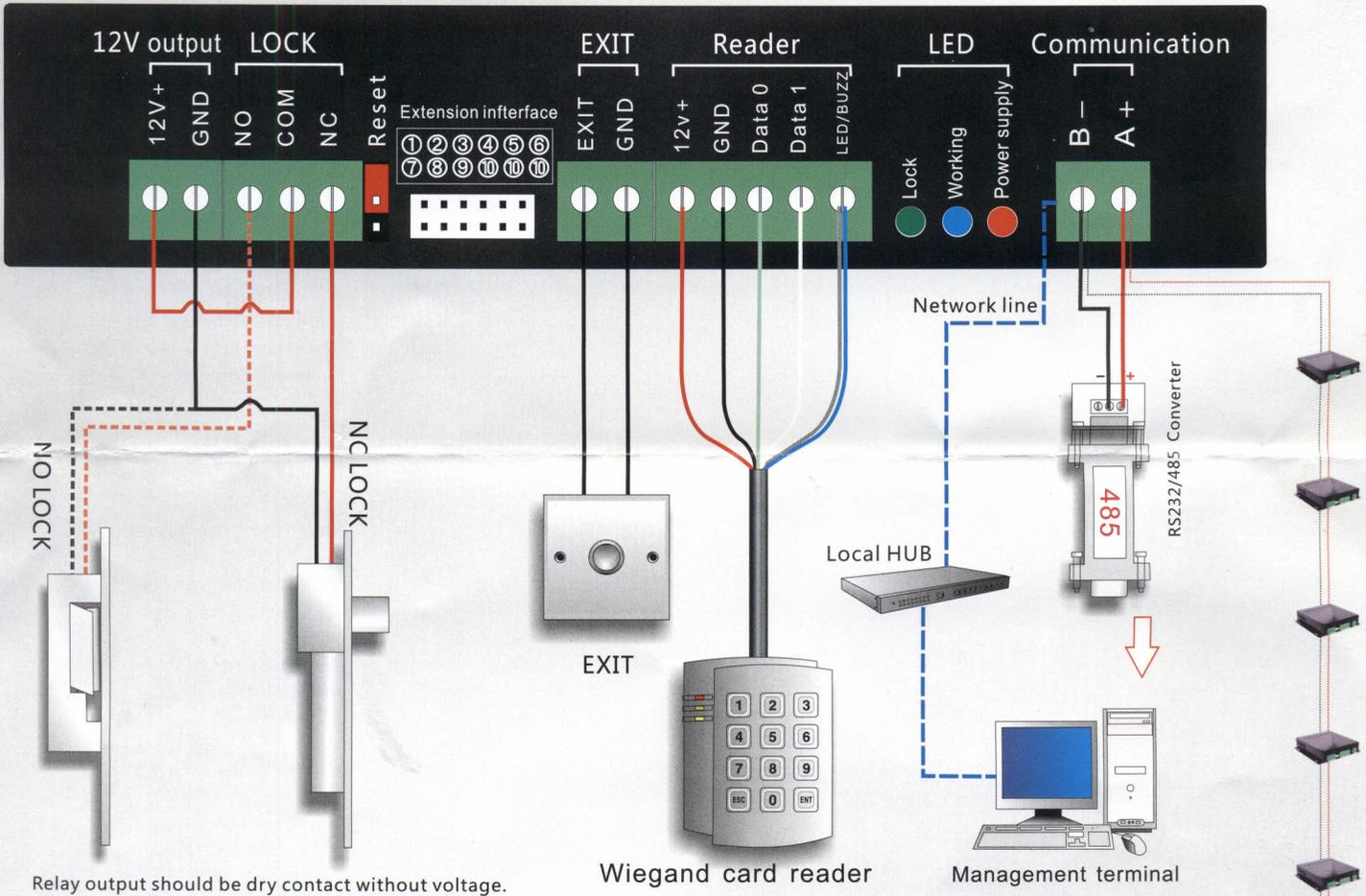
Wire from door sensor to access controller: suggest using 2 core line. Line diameter should be >0.3mm.

RS485 communication layout: suggest using 2 core (line diameter>0.5mm) shield line from converter to access controller. In theory, the communication distance can be as long as 1200 meters. However, we suggest that the distance should be less than 800 meters if taking the environment into consideration.

TCP/IP communication: Use country standard network line, the distance between controller and HUB or PC should be less than 100 meters.

How to reset access controller: 1, Power off controller, short reset jumper, power controller for 6 sec. and controller buzz will send 2 sound, after power off, disconnect reset jumper, then power again, all of data in controller is cleared.

2, Open software, right click on controller icon to be initialized---device---reset access controller.



Relay output should be dry contact without voltage.

EXIT

Wiegand card reader

Management terminal

Network line

Local HUB

RS232/485 Converter

485

## Extension interface:

Lock B

| NO | CO | NC | MSG2(Alarm) | Exit2(fire alarm) | MSG1 |
|----|----|----|-------------|-------------------|------|
| ① | ② | ③ | ④ | ⑤ | ⑥ |
| ⑦ | ⑧ | ⑨ | ⑩ | ⑩ | ⑩ |

LED/BUZZ  Data 1  Data 0  Alarm GND  Exit GND  MSG GND

Reader B

## Rs485 communication layout rule:

Right ✓

Right ✓

Wrong ✗

Wrong ✗

Connect next device