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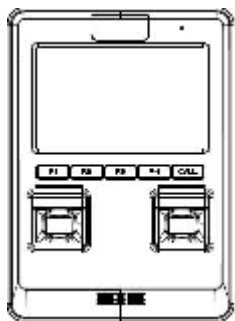
# Dstation

Innovative Fingerprint Terminal

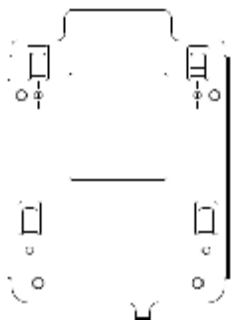
Installation Guide  
(ver 0.1)

## Product Contents

### n Basic Contents



DStation Terminal



Wall mounting metal bracket



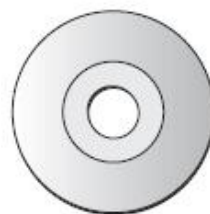
Wall mounting  
screws and holders - 4 ea



Screw for fixing main body



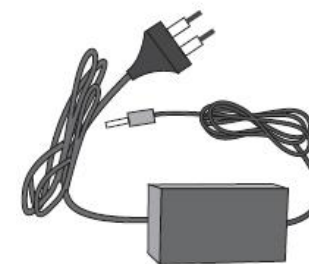
3P, 9P, 4P, 4P, 8P, 7P, 5P Cable – 1EA



Software CD



Ferrite Core



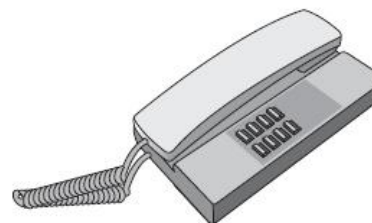
12V DC Adaptor

## Product Contents

### n Optional accessories



USB fingerprint scanner for  
enrollment on PC



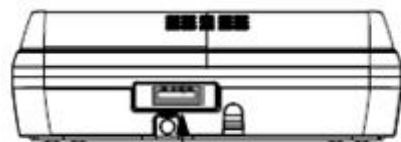
Interphone



Wireless LAN Access Point

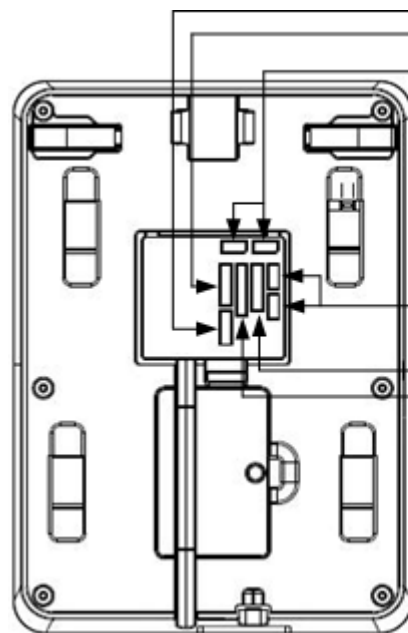
## Connectors for External Interfaces

### n Bottom



• USB Memory Slot : USB A type

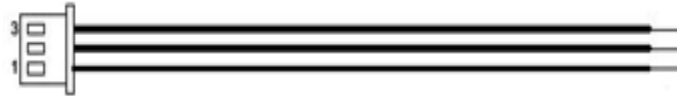
### n Rear



- 7P Video Phone Connector
- 5P Wiegand Connector
- 3P Relay Cable Connector
- 4P RS485 Cable Connector
- 8P TTL In Cable Connector
- 9P RS232 Cable Connector

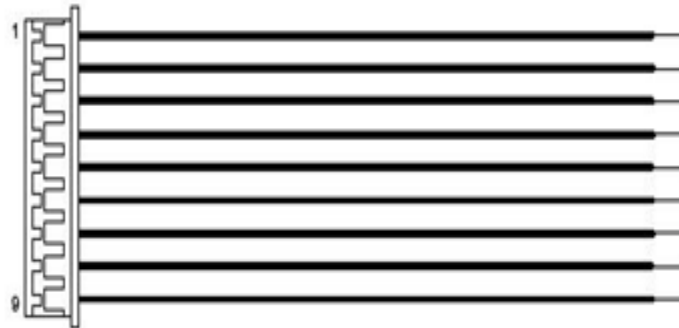
## Cable and Connector Pinout

Relay



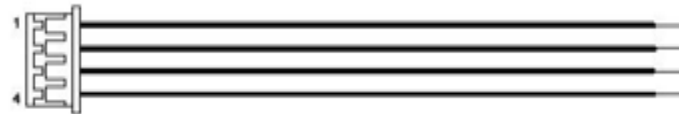
PIN	PIN DESCRIPTION
1	NORMAL OPEN
2	COMMON
3	NORMAL CLOSE

RS232



PIN	PIN DESCRIPTION
1	RS232_DCD
2	RS232_RXD
3	RS232_TXD
4	RS232_DTR
5	GND
6	RS232_DSR
7	DS232_RTS
8	RS232_CTS
9	RS232_RI

RS485



PIN	PIN DESCRIPTION
1	TRX -
2	TRX +
3	GND
4	SHIELD GND

## Cable and Connector Pinout

TTL In



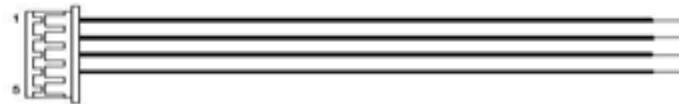
PIN	PIN DESCRIPTION
1	SWIN_IN0
2	SWIN_IN1
3	GND
4	SHIELD_GND
5	SWIN_IN2
6	SWIN_IN3
7	GND
8	SHIELD_GND

인터폰



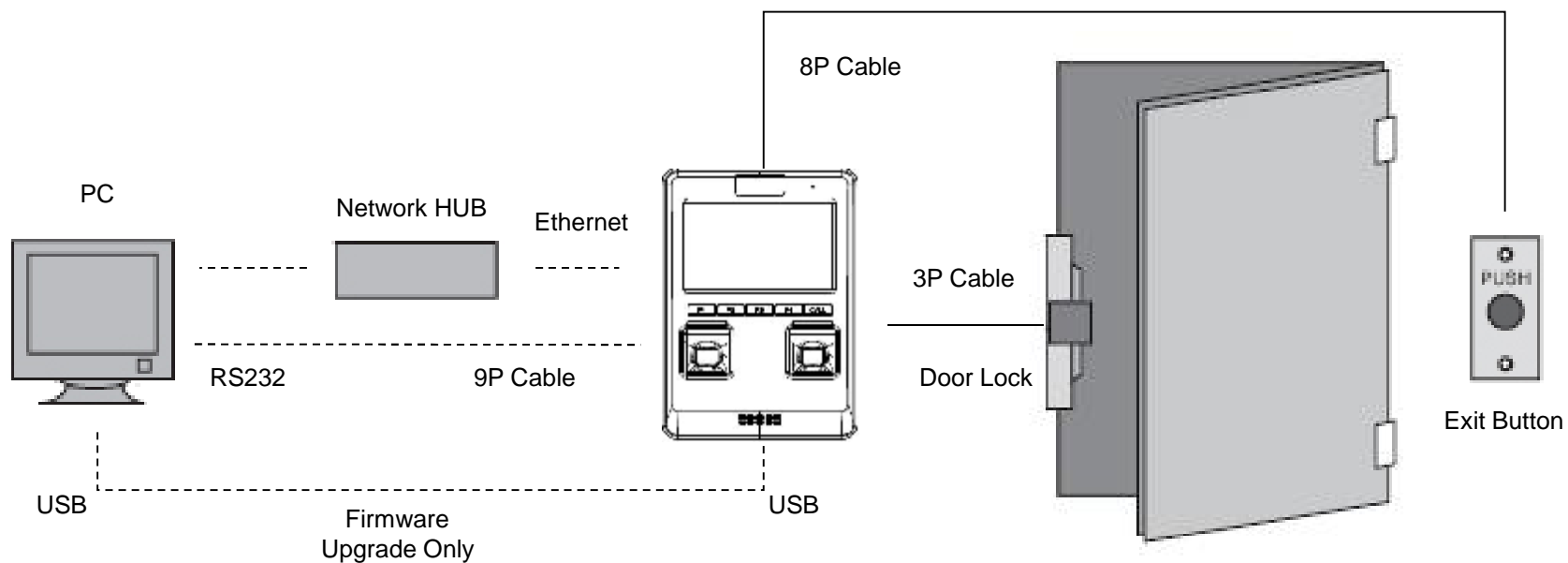
PIN	PIN DESCRIPTION
1	PHONE_VOICE
2	GND
3	PHONE_VCC
4	PHONE_VIDEO
5	PHONE_OPEN
6	GND
7	SHIELD_GND

Wiegand

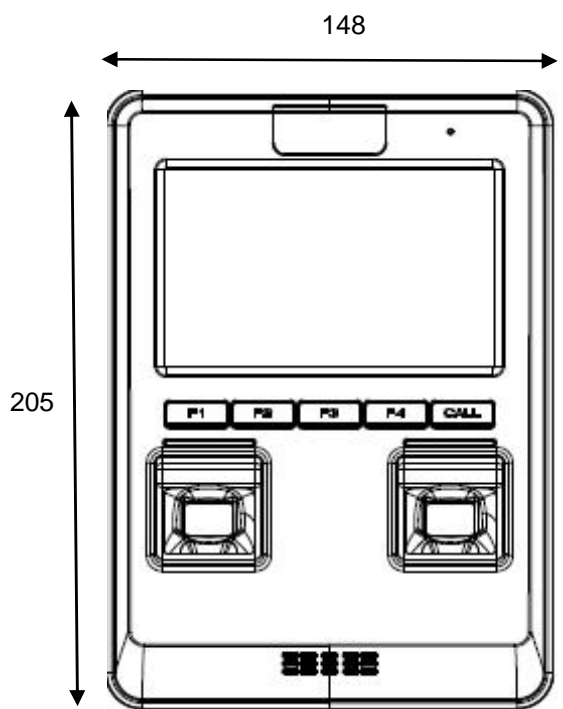


PIN	PIN DESCRIPTION
1	WIEGAND_D0
2	WIEGAND_D1
3	GND
4	SHIELD GND

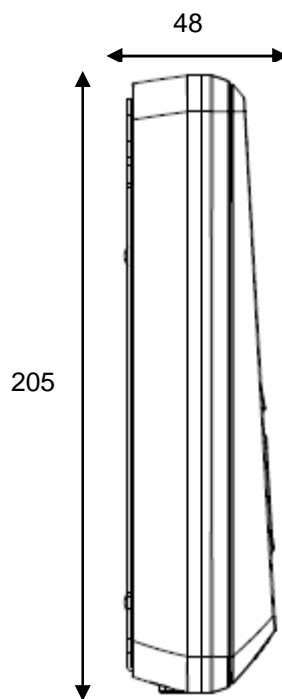
## Installation Example



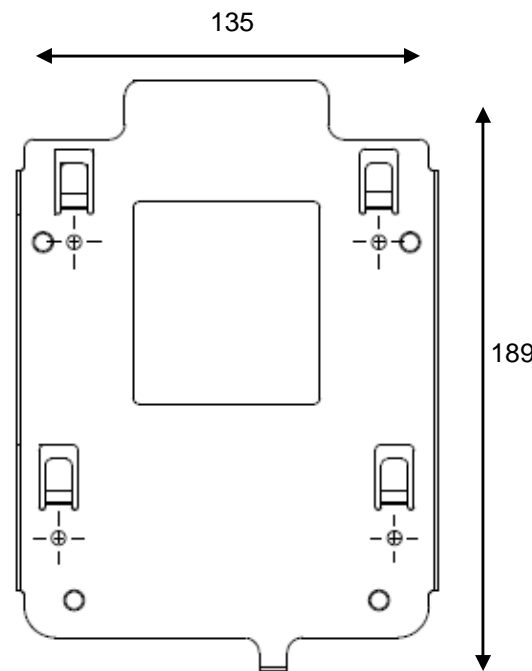
## Product Dimension



전면



측면



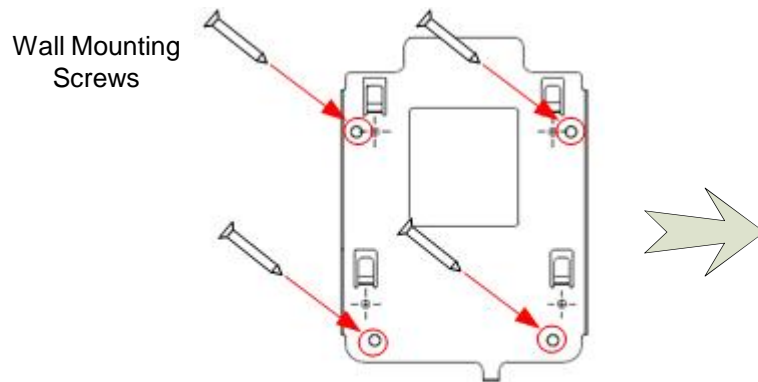
브라켓

(unit : mm)

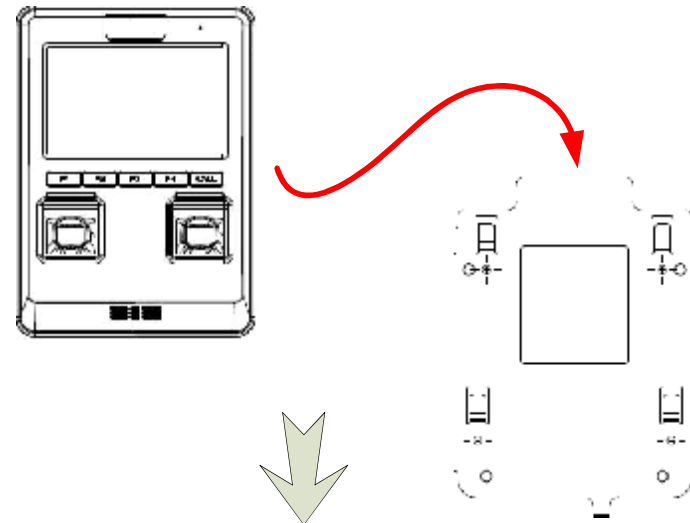


## Installation of Wall-mount Bracket

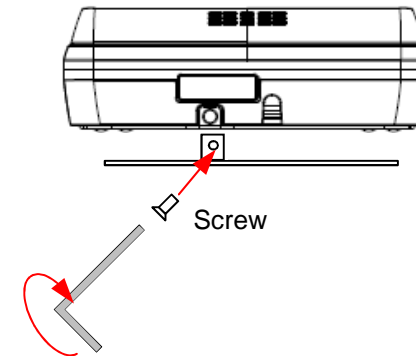
- n Fix wall mount bracket on a wall using wall mounting screws



- n Hook DStation on the wall mount bracket.

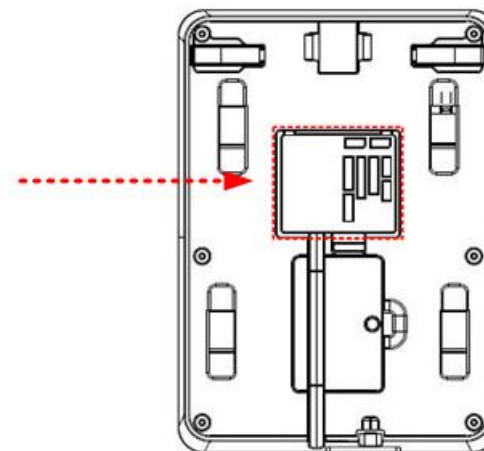
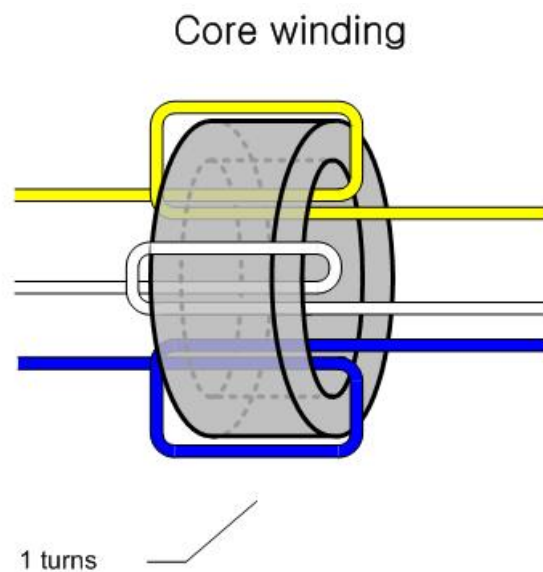


- n Fix BioStation and wall mounting bracket using a screw.



## Ferrite Core Installation

### n Ferrite core



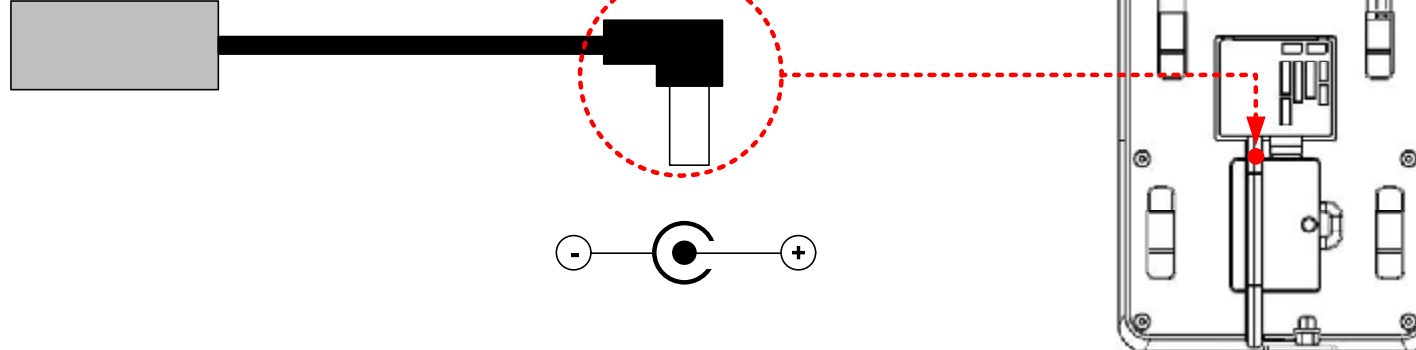
**The following cables must be wound around the core (1 turns)**

1. RS485 cable
2. Intercom/Power cable
3. TTL/Wiegand IO cable
4. RELAY
5. LAN

## Power Connection

### n Power connection

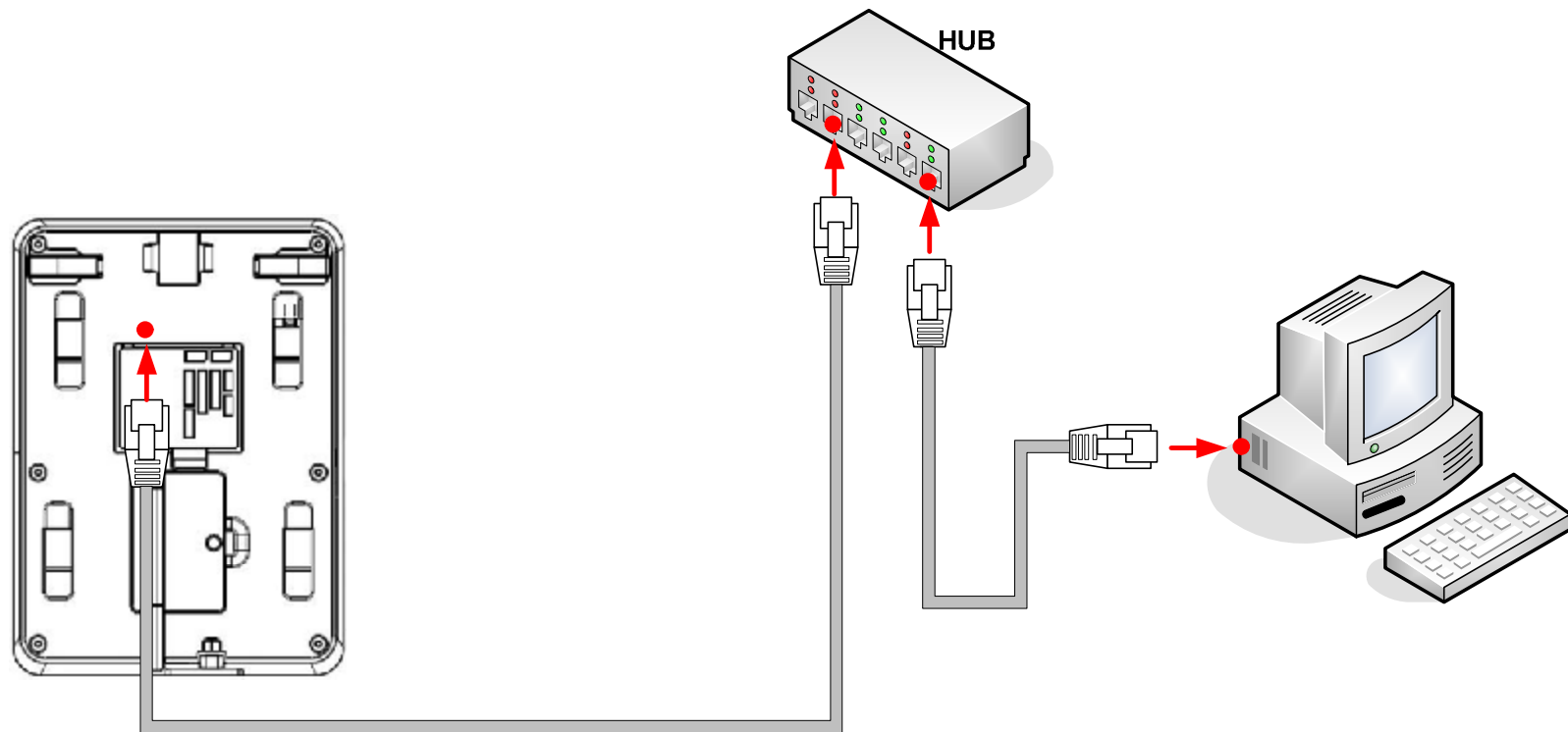
DC12V ADAPTOR



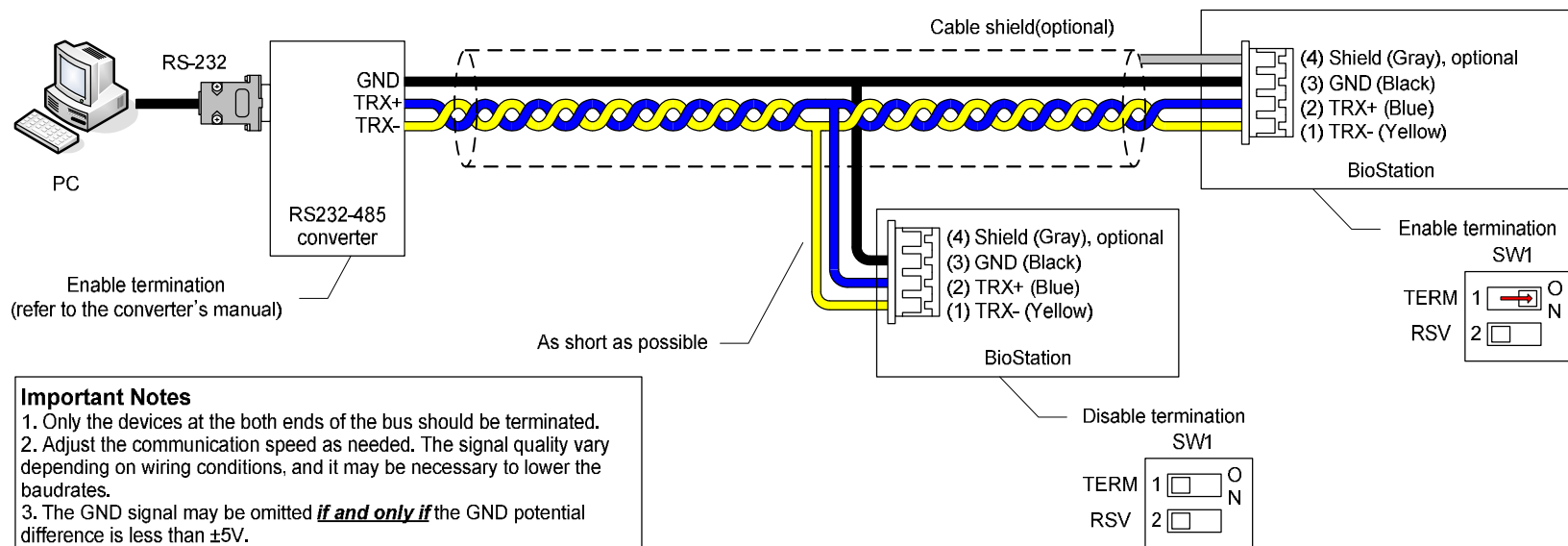
### n Recommended

- | 12V  $\pm$  10%, at least 1500mA for BioStation alone installation.
- | Comply with standard IEC/EN 60950-1
- | To share the power with other devices, use a power supply with higher current ratings.

## LAN Connection



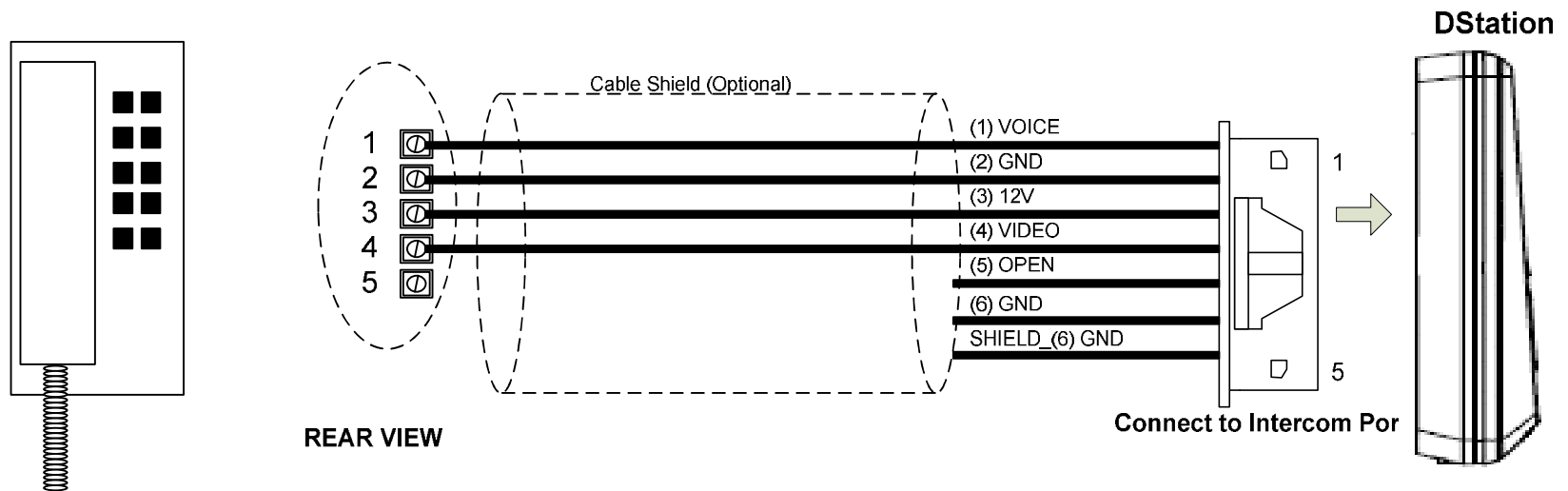
## RS485 Network Connection



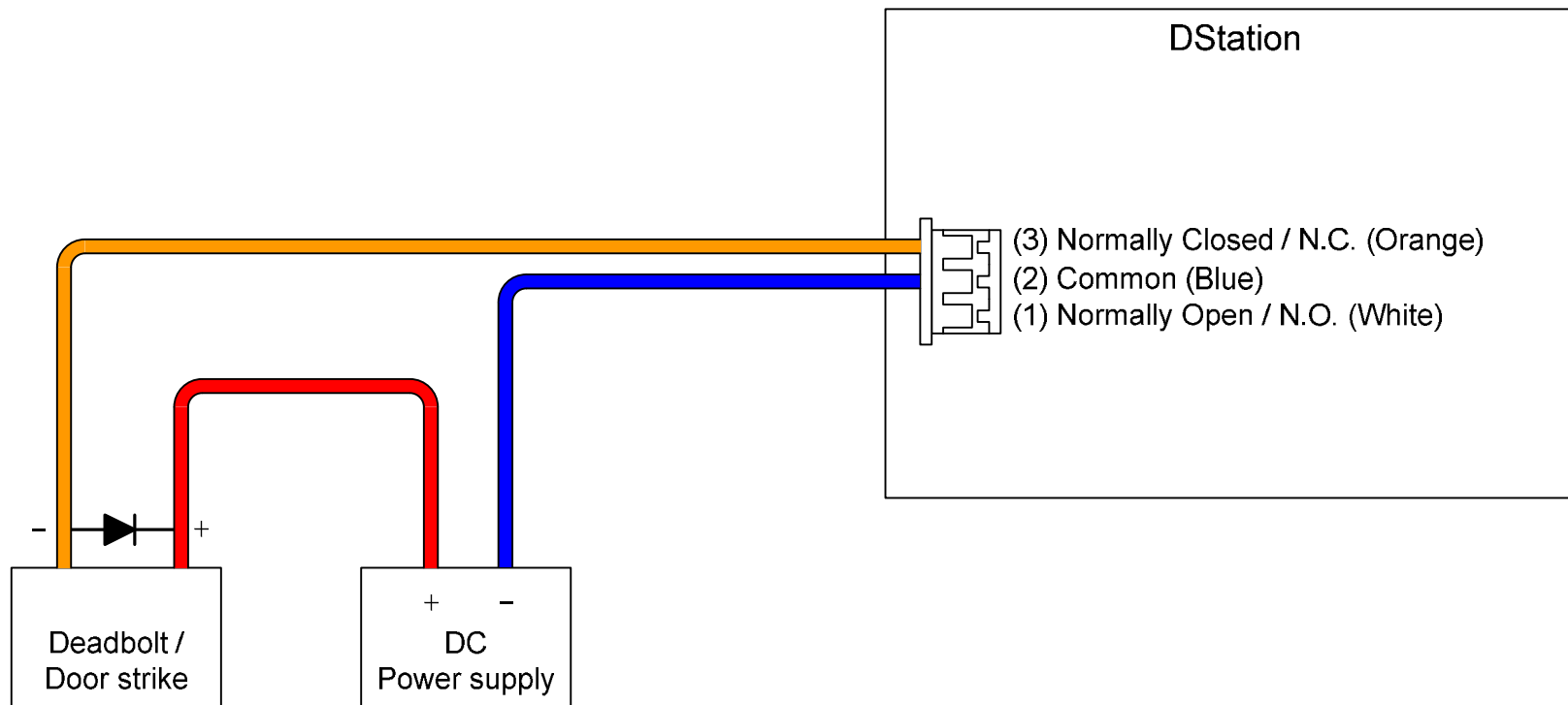
### Important Notes

1. Only the devices at the both ends of the bus should be terminated.
2. Adjust the communication speed as needed. The signal quality vary depending on wiring conditions, and it may be necessary to lower the baudrates.
3. The GND signal may be omitted **if and only if** the GND potential difference is less than  $\pm 5V$ .

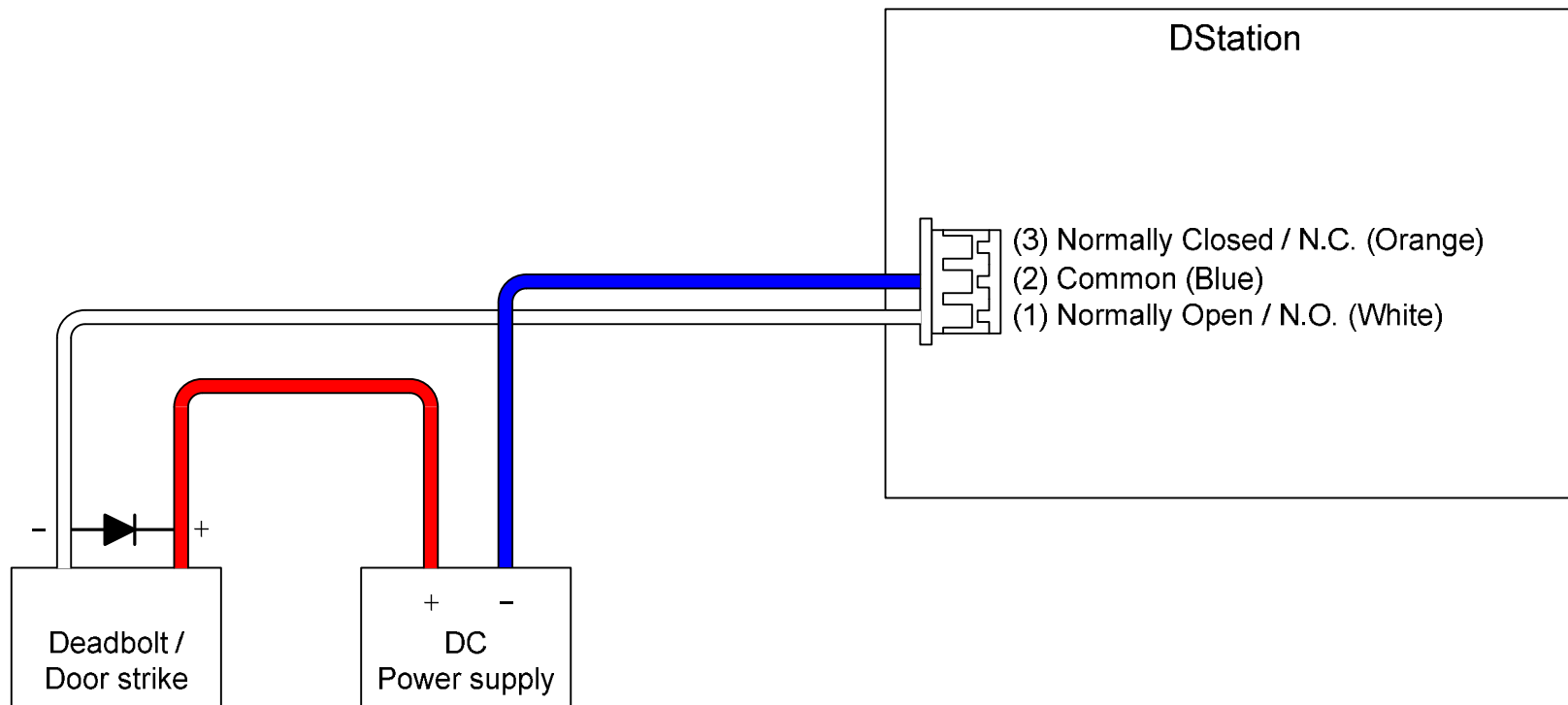
## Intercom Connection



## Relay Connection – Fail Safe Lock

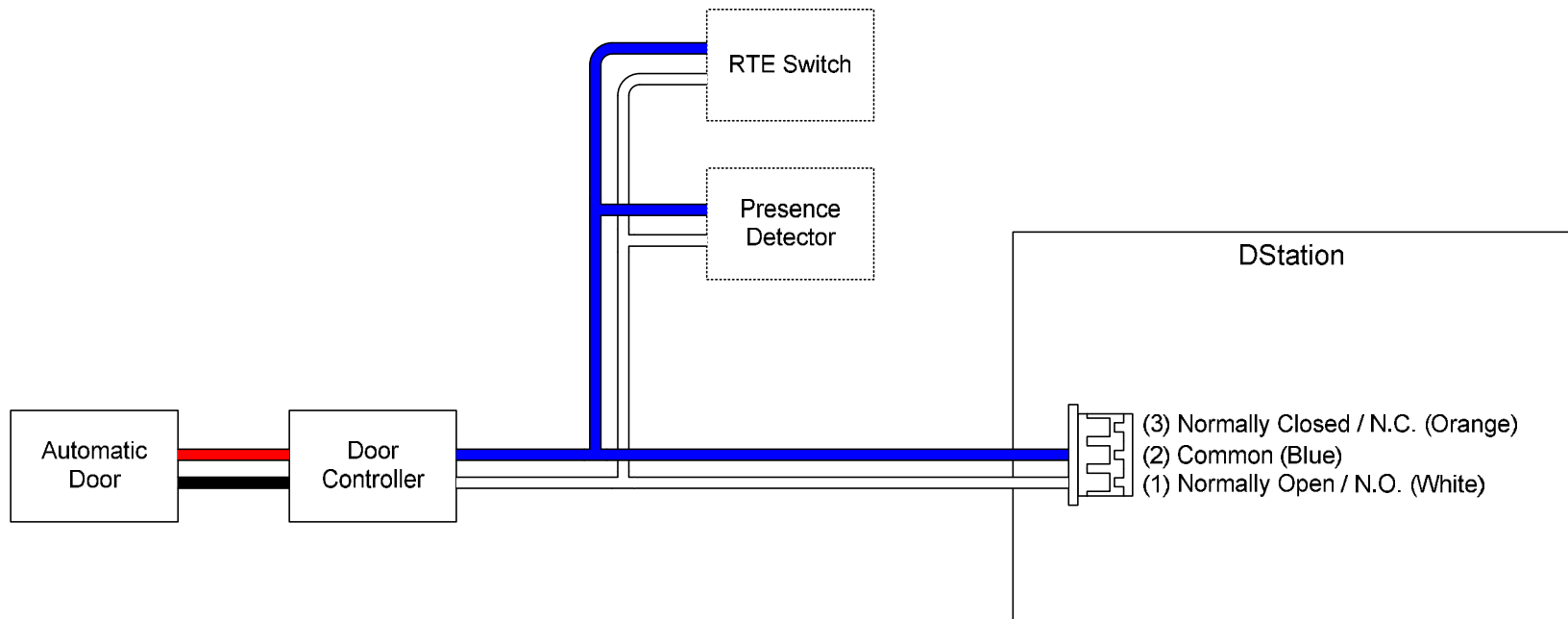


## Relay Connection – Fail Secure Lock

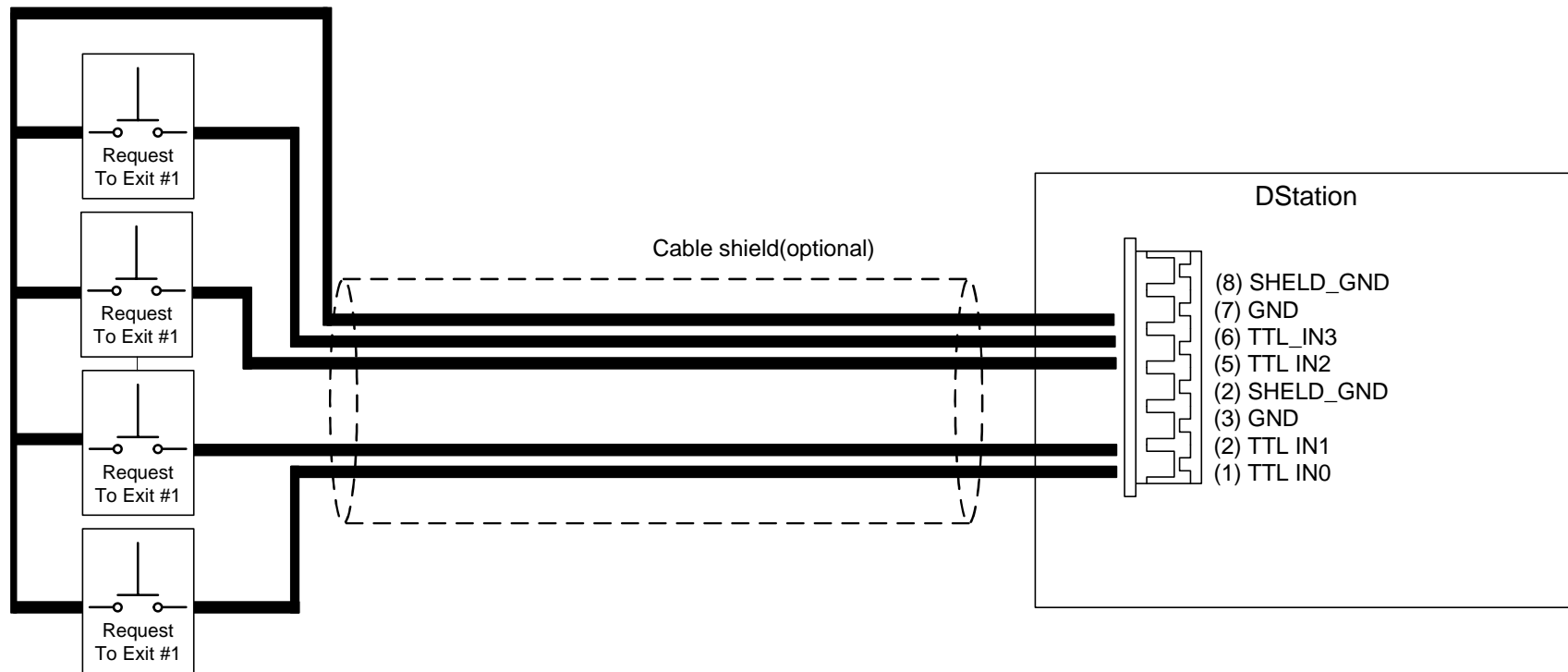




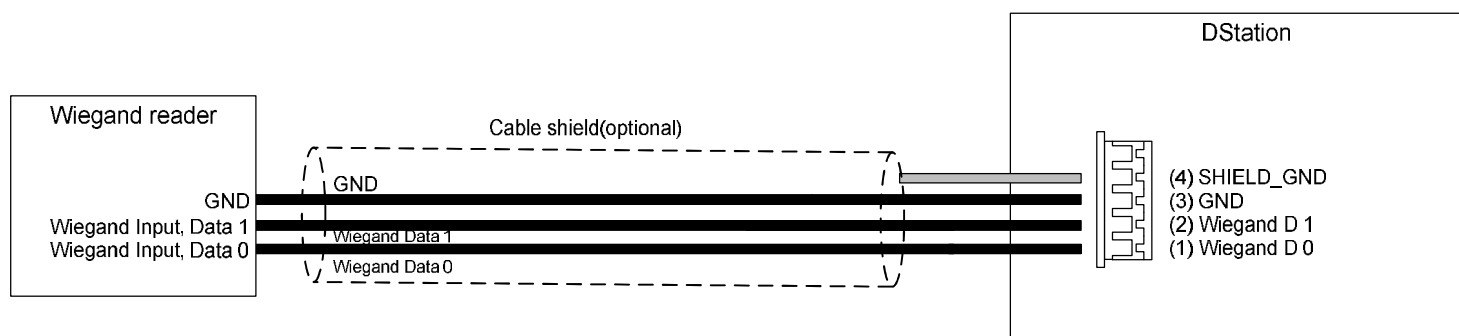
## Relay Connection - Automatic Door



## TTL Input Port Connection – RTE Switches



## Wiegand Input Connection – External reader



## System Specifications

- n ● CPU : Main B/D CPU - ARM11 667MHz (Samsung S3C6410-667) X 1ea
- n     Sensor B/D CPU - DSP 400MHz (ADI BP531-400) X 2ea
- n     IO B/D CPU - ARM Corex-M3 36MHz (ST STM32F101 ) X1ea
- n ● Memory : Main B/D - Flash : Nand MLC 1GByte + Nor 1MByte, SDRAM(mDDR) : 256MByte
- n     Sensor B/D - Flash : SPI 512Kbyte, SDRAM : 32MByte
- n     IO B/D - Flash : 32Kbyte, SRAM : 6KByte
- n ● DISPLAY : 5inch WVGA TFT LCD (800 X 480) X 1ea
- n ● LED : 3-Color LED X 2ea
- n ● INPUT : Touch Screen X 1ea + 5 Keypad (F1~F4, CALL)
- n ● CAMERA : 1.3M CMOS Camera X 1ea
- n ● I/O Port : Wiegand In/Out X 1ch
- n     Video Phone I/F X 1ch
- n     Switch Input X 4ch
- n     RS-485 X 2ch
- n     RS-232(Full Feature RS-232) X 1ch
- n     Relay(2A@30Vdc) X 2ch
- n     Ethernet(10/100M) X 1ch
- n     Micro SD Card Slot X 1ch
- n     SAM Slot X 1ch
- n     USB HOST(for USB Wireless LAN) X 2ch
- n     USB HOST/Device Share(for USB Memory or PC Connection) X 1ch
- n ● Sound Out: System Sound용 Speaker X 1ea + Video Phone Sound용 Speaker X 1ea
- n ● Mic : Video Phone MIC X 1ea
- n ● RF CARD : Mifare/ISO14443 B-type
- n ● Fingerprint Sensor : OC-OC Sensor Model
- n ● Power Input : 12Vdc Adaptor or POE Input
- n ● Power Output : 12Vdc 100~200mA(T.B.D)

## FCC Rules

### Caution

Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

### Warning

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interface, and (2) this device must accept any interface received, including interference that may cause undesired operation.

### Information to User

This equipment has been tested and found to comply with the limit of a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, user and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation; if this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more the following measures:

1. Reorient / Relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit difference from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for help

## Electrical Specification

	Min.	Typ.	Max.	Notes
<b>Power</b>				
Voltage (V)	10.8	12	13.2	
Current (mA)	-	500	800	
<b>TTL/Wiegand Input</b>				
V <sub>IH</sub> (V)	2	-	-	
V <sub>IL</sub> (V)	-	-	0.8	
Pull-up resistance (Ω)	-	10k	-	
<b>TTL/Wiegand Output</b>				
V <sub>OH</sub> (V)	4	-	-	@ I <sub>OH</sub> = -5mA
V <sub>OL</sub> (V)	-	-	1	@ I <sub>OL</sub> = 5mA
Output resistance (Ω)	-	100	-	
<b>Relay</b>				
Switching capacity (A)	-	-	1 0.3	30V DC 125V AC
Switching power (resistive)	-	-	30W 37.5VA	DC AC
Switching voltage (V)	-	-	110 125	DC AC



**SUPREMA**

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Functions and specifications of the product are subject to changes without notice due to quality enhancement or function update. For any inquiry on the product, please contact **Suprema Inc.**