



suprema

suprema Xpass

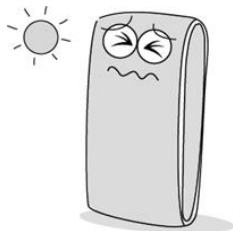
Smart IP Access Reader

TCP/IP Ready
Wiegand/RS485 Interfaces
IP65 Waterproof
Power over Ethernet

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Safety Precautions



Do not install the device in a place subject to direct sun light, humidity, dust or soot.

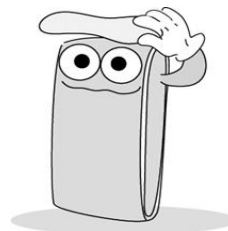


Do not place the device next to heating equipments.



Do not place a magnet near the product.

► It may cause a damage or a failure to the product.



When cleaning, do not splash water on the device but wipe it out with a smooth cloth or towel.



Be careful not to let liquids like water, drinks or chemicals leak inside the device.

► It may cause a failure.



Clean the device often to remove dust on it.



The list below is to keep user's safety and prevent any loss. Please read safety precautions carefully before use.

Safety Precautions



Do not drop the device.



Do not disassemble, repair or alter the device.

► The warranty does not apply to any product damage caused by an arbitrary installation or repair.



Do not let children touch the device without supervision.



Do not use the device for any other purpose than specified.



Do not damage the device.



Contact your nearest dealer in case of a trouble or problem.

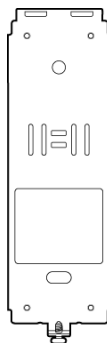
 The list above is to keep user's safety and prevent any loss. Please read safety precautions carefully before use.

Product Components

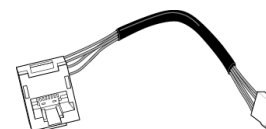
Basic Components



Xpass



Bracket



Extended Ethernet Cable



**Wall Mounting Screws
(2 ea)**



**Knife Blocks
(2 ea)**



Shrinkable Tubes



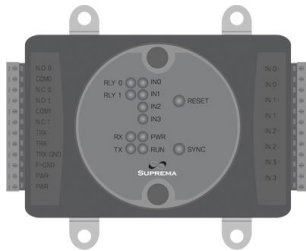
**Diode
(1 EA)**



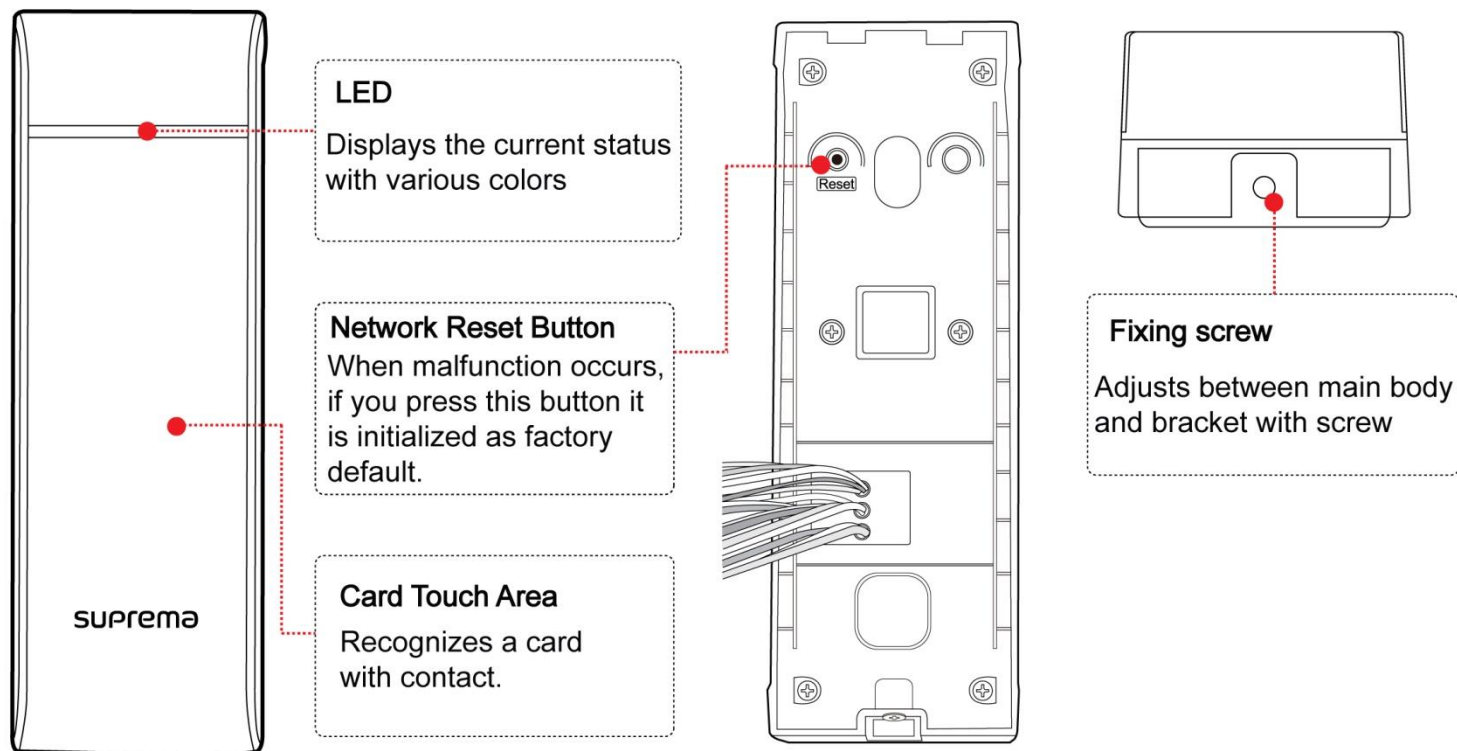
Software CD

 The components shown above may differ depending on the installation environment.

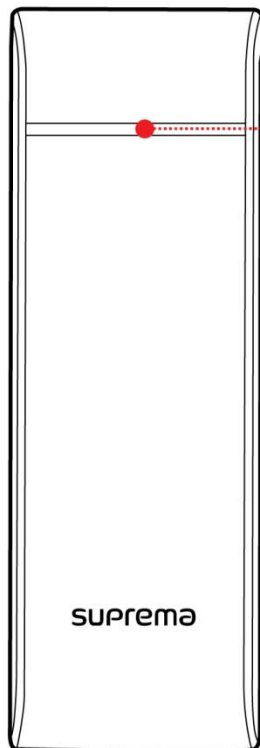
Optional Accessories



Product Description



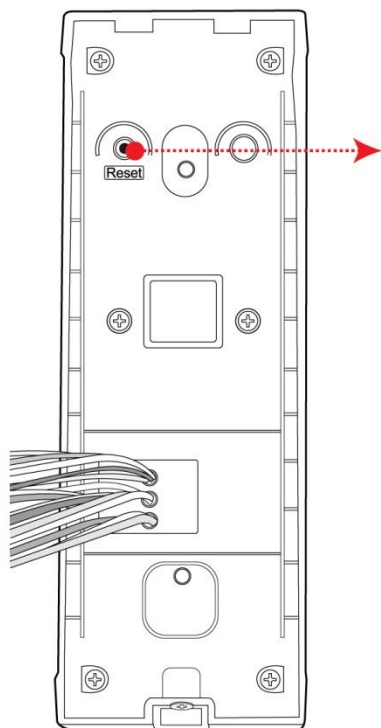
LED status



| LED Status per Color | | |
|---|----------------|--|
| Color | Sound | Description |
| Green | Beep Beep Beep | Authorization Success |
| Red | Be~ep | Authorization Fail |
| Pink | Beep! | On Processing |
| Flicker Blue/Sky-Blue Color per 2sec | No sound | Normal |
| Flicker Red/Pink Color per 2sec | No sound | Locked |
| Flicker Blue/Red Color per 2se | No sound | Initialized Time due to the Internal Battery Discharge |
| Flicker Blue /Yellow Color per 2sec | No sound | IP address is not assigned when terminal is set as 'Use' in the 'DHCP' of 'TCP/IP Setting' |
| For first operation, red LED is blinking by every 2 seconds. | No sound | Failed. Please contact to your distributor or Suprema |
| For normal operation, red LED is blinking by every 2 seconds. | No sound | Security status |
| Yellow LED is blinking shortly. | No sound | Terminal is send or received a packet to get IP address when terminal is set as 'Use' in the Idle status or 'TCP/IP Setting' |

Initialization of network setting

When you install the Xpass or forget the network setting's value of Xpass in use, can initial the network setting's value (TCP/IP address, RS-485 setting) in the switch of Xpass's back side as follows;

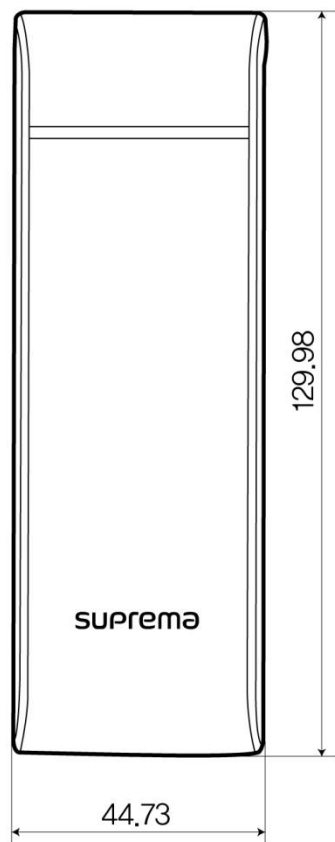


Initializing the network setting

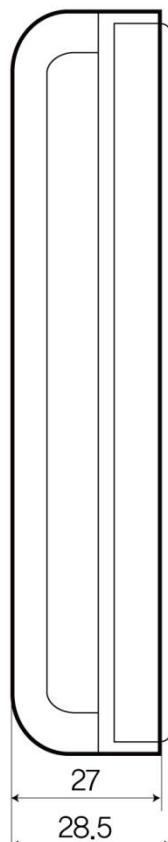
1. Press the Reset button in the switch of Xpass's back side for 3 second or above.
2. Connect between Xpass and Biostar Client(Ver.1.25 or higher) by using TCP/IP or RS-485.
 · Network default setting value
 - TCP/IP Address(Fixed): 192.168.0.1. Not Checked: Use Server
 - RS-485 : PC Connection, 115200 bps
3. Enter th desired value of TCP/IP address or RS-485 to change setting value. And save setting value.
4. After delete the Xpass among devices list, re-connect bewteen Xpass and BioStar using the new TCP/IP address or RS-485 setting.

Product Dimension

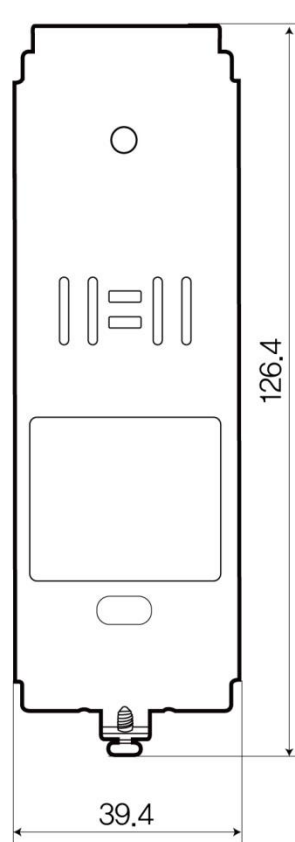
(unit : mm)



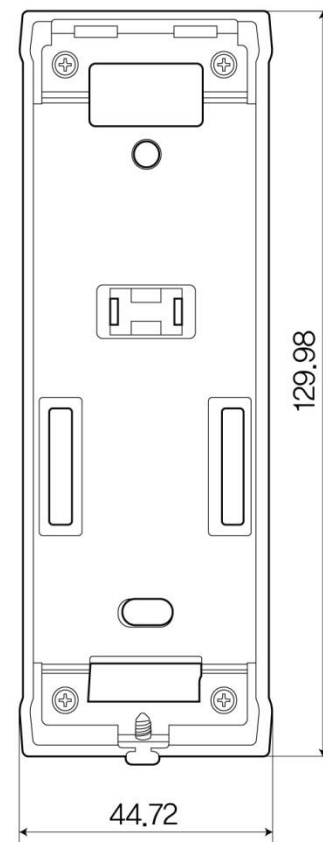
< Front View >



< Side View >

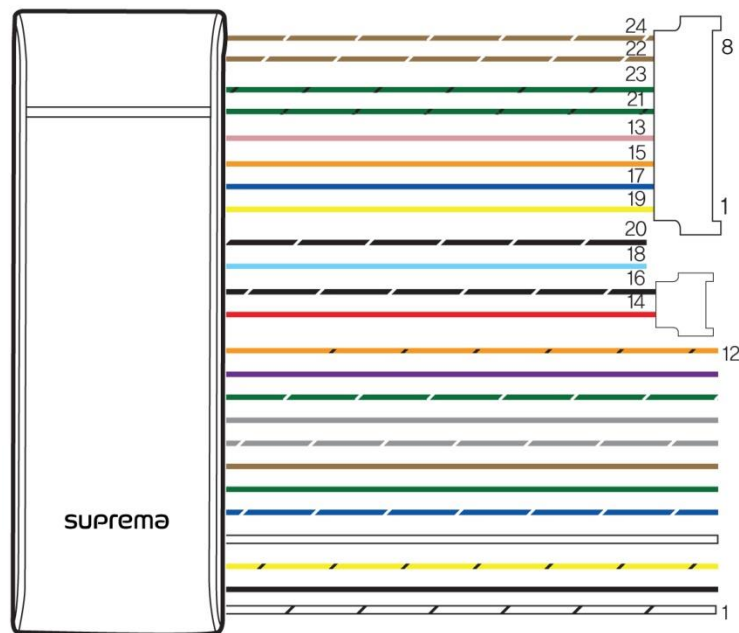


< Bracket >



< Extended Bracket >

Cables and Connectors



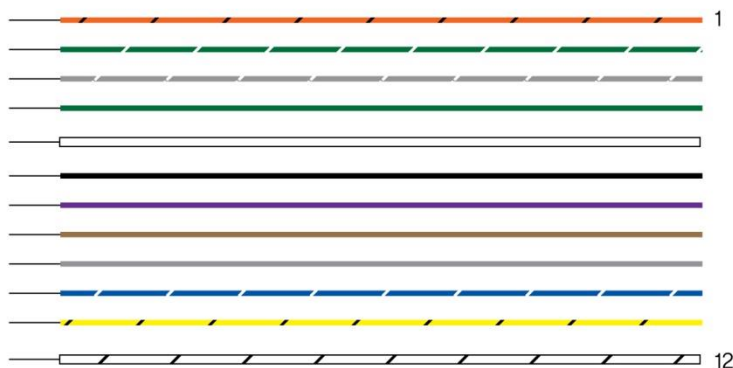
A Cross Section of Cable



| No | Pin Name | Full Name | Color |
|----|----------|-------------|-----------------------|
| 1 | 485 GND | 485 GND | White (black string) |
| 2 | WGD GND | Wiegand-GND | Black |
| 3 | 485 - | 485 - | Yellow (black string) |
| 4 | WGD D1 | Wiegand-1 | White |
| 5 | 485 + | 485 + | Blue (white string) |
| 6 | WGD D0 | Wiegand-0 | Green |
| 7 | IN 1 | Input-1 | Brown |
| 8 | RLY NO | Relay Open | Gray (white string) |
| 9 | IN GND | Input-GND | Gray |
| 10 | RLY COM | Relay Com | Green (white string) |
| 11 | IN 0 | Input-0 | Purple |
| 12 | RLY NC | Relay Close | Orange (black string) |
| 13 | TX+ | TX+ (LAN) | Pink |
| 14 | PWR IN+ | Power IN+ | Red |
| 15 | TX- | TX- (LAN) | Orange |
| 16 | PWR IN- | Power IN- | Black (white string) |
| 17 | RX+ | RX+ (LAN) | Blue |
| 18 | PWR OUT+ | Power OUT+ | Light Blue |
| 19 | RX- | RX- (LAN) | Yellow |
| 20 | PWR OUT- | Power OUT- | Black (white string) |
| 21 | VB1 | VB1 | Green (black string) |
| 22 | VB2 | VB2 | Brown (white string) |
| 23 | VB1 | VB1 | Green (black string) |
| 24 | VB2 | VB2 | Brown (white string) |

Cables and Connectors

Cable Specification

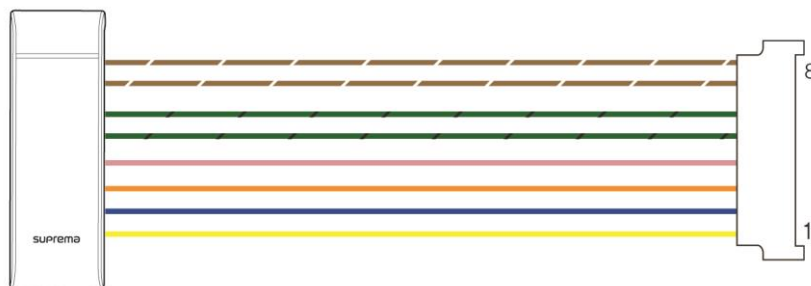


| Cable | | Pin Name | Color |
|-------|---------|----------|-----------------------|
| 1 | Relay | RLY NC | Orange (black string) |
| 2 | | RLY COM | Green (white string) |
| 3 | | RLY NO | Gray (white string) |
| 4 | Wiegand | WGD D0 | Green |
| 5 | | WGD D1 | White |
| 6 | | WGD GND | Black |
| 7 | Switch | IN 0 | Purple |
| 8 | | IN 1 | Brown |
| 9 | | IN GND | Gray |
| 10 | 485 | 485+ | Blue (white string) |
| 11 | | 485- | Yellow (black string) |
| 12 | | 485 GND | White (black string) |



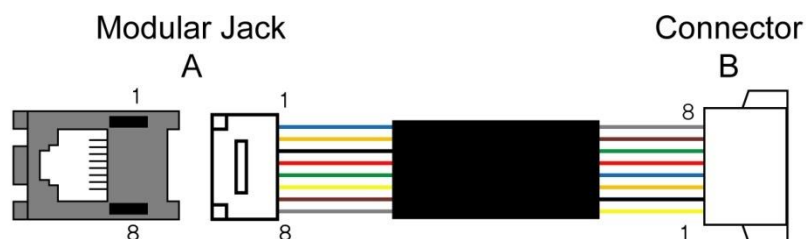
| Adaptor Connector | | Pin Name | Color |
|-------------------|-------|-------------|----------------------|
| | Power | POWER OUT - | Black (white string) |
| | | POWER OUT + | Light Blue |
| 3 | | POWER IN - | Black (white string) |
| 1 | | POWER IN + | Red |

LAN cable



| LAN Connector | Pin Name | Color |
|---------------|----------|----------------------|
| 1 | RX- | Yellow |
| 2 | RX+ | Blue |
| 3 | TX- | Orange |
| 4 | TX+ | Pink |
| 5 | VB1 | Green (black string) |
| 6 | VB1 | Green (black string) |
| 7 | VB2 | Brown (white string) |
| 8 | VB2 | Brown (white string) |

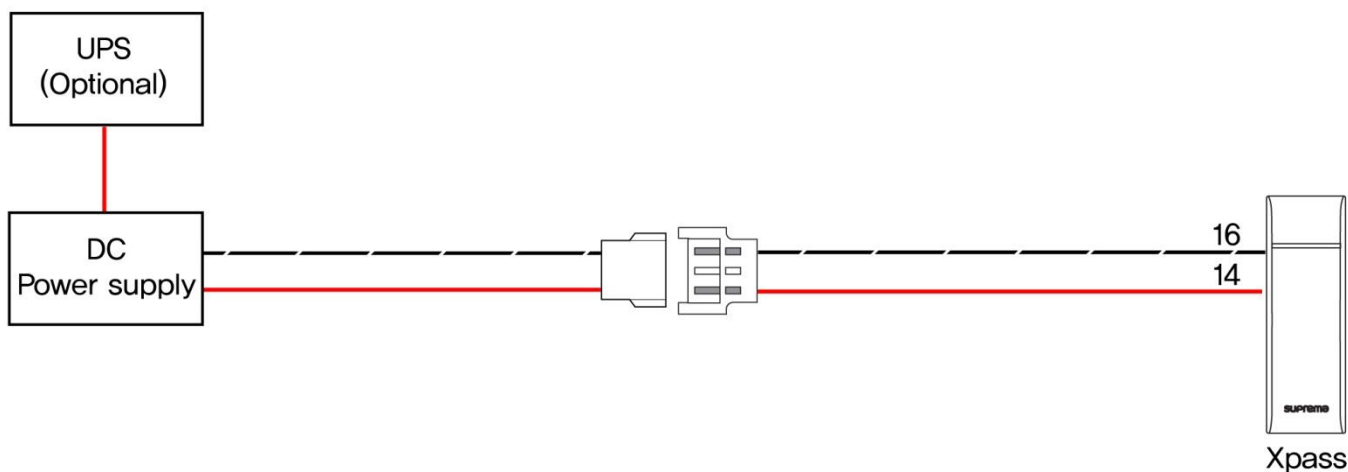
Ethernet extension cable



| Modular Jack (A) | Connector (B) | Pin Name | Color |
|------------------|---------------|----------|--------|
| 1 | 4 | TX+ | Blue |
| 2 | 3 | TX- | Orange |
| 3 | 2 | RX+ | Black |
| 6 | 1 | RX- | Yellow |
| 4 | 5 | VB1 | Red |
| 5 | 6 | VB1 | Green |
| 7 | 7 | VB2 | Brown |
| 8 | 8 | VB2 | Gray |

Power Connection 1

| Pin | Pin Name | Color |
|-----|----------|----------------------|
| 14 | PWR IN+ | Red |
| 16 | PWR IN- | Black (white string) |



Recommended power supply

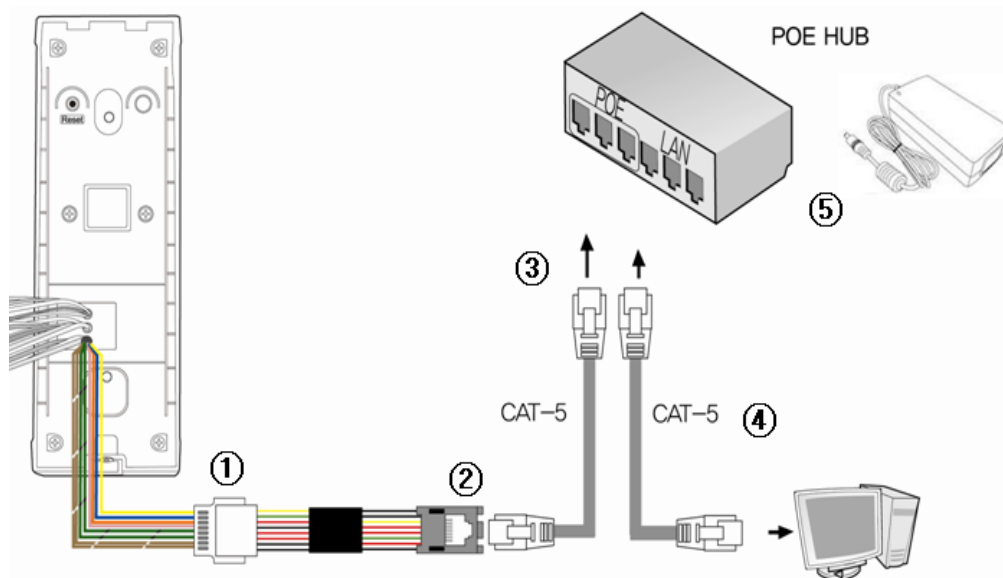
12V \pm 10%, at least 1500mA.

Comply with standard IEC/EN 60950-1.

To share the power with other devices, use a power supply with higher current ratings.

Power Connection 2

Please read below carefully before you install this product. This is essential steps for stable operation. **Please make sure to turn on the power of PSE only after connect all cables related to PoE**



① Connect 8port Ethernet connect of Xpass body to Ethernet expansion cable in right direction

② Connect RJ45 modular from Ethernet expansion cable to Ethernet cable with CAT-5

③ Connect the opposite side of Ethernet cable to PoE HUB port

④ Connect cable from PC to port from PoE HUB and connect the opposite side of cable to Ethernet port of PC

⑤ Connect power of PoE HUB

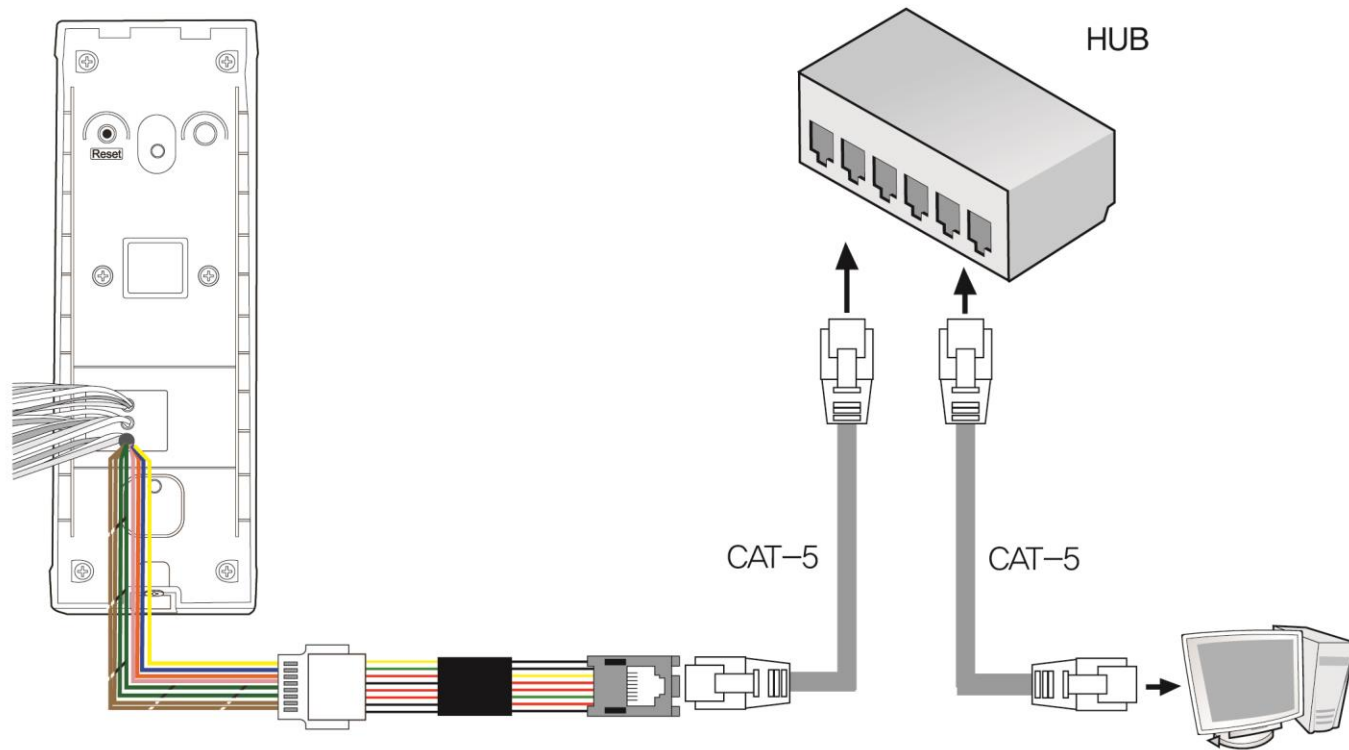
Recommended Power Supply

Please use the distance of LAN cable within 100m in case of PoE power.

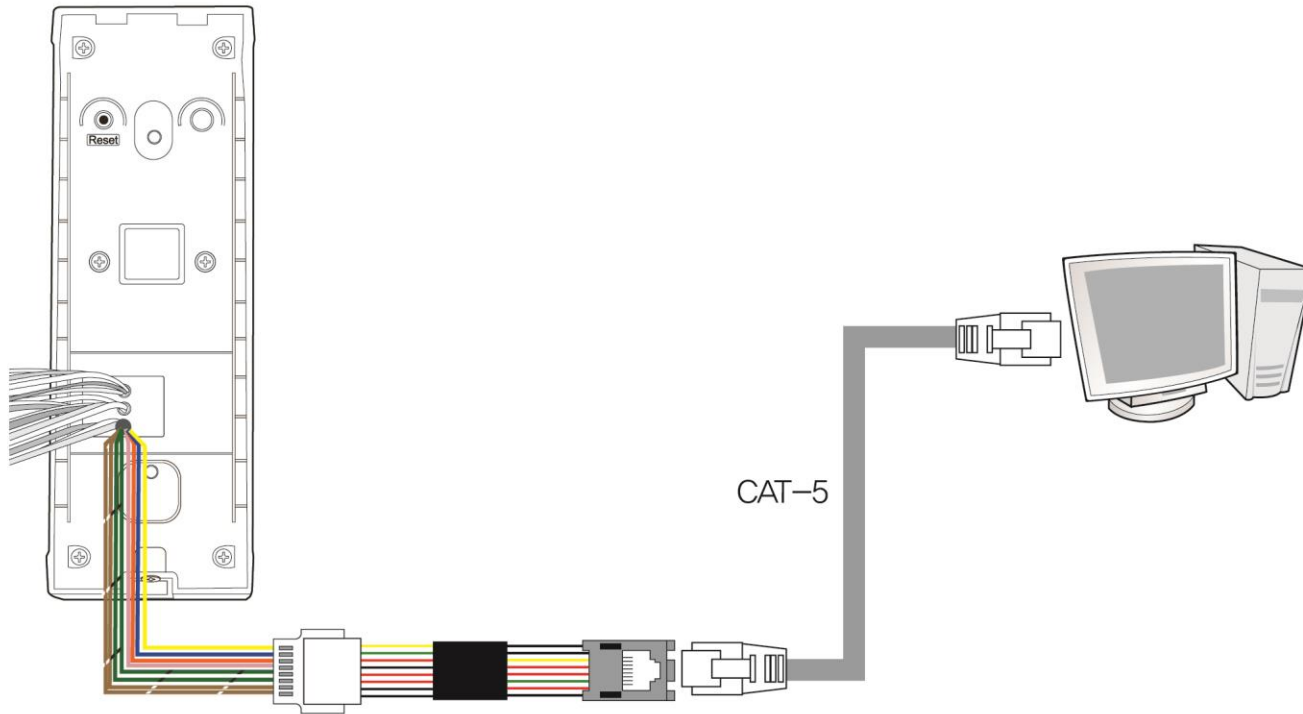
PoE(Power over Ethernet)

: Use PSE(Power sourcing Equipment) that complies with IEEE802.3af standard only.

LAN Connection

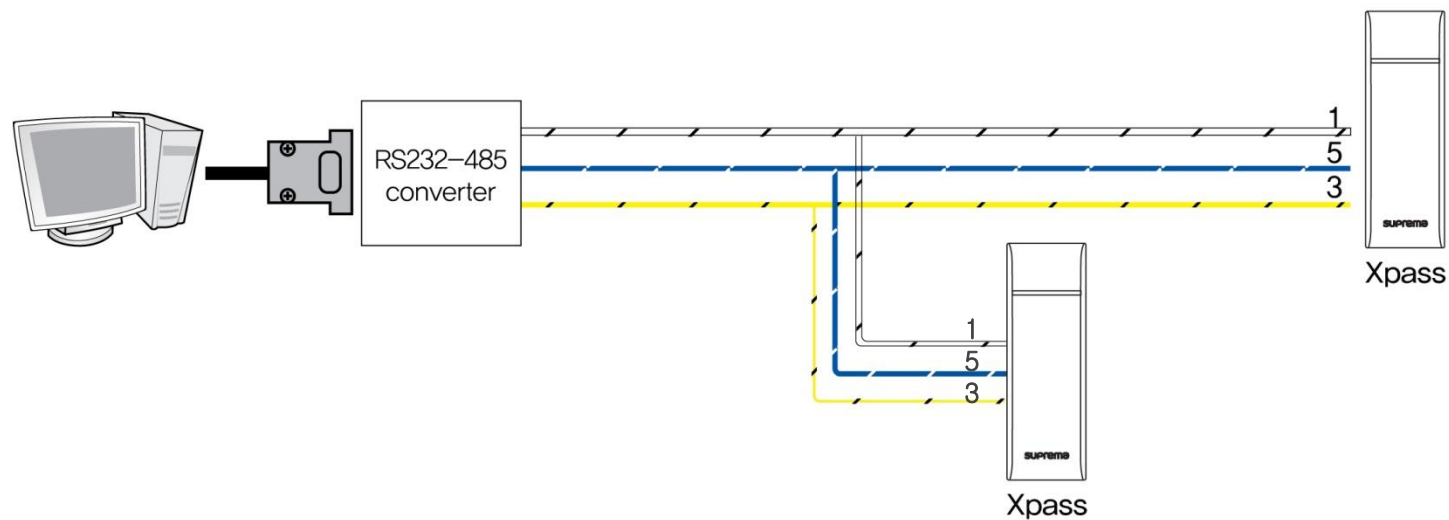


LAN Connection (Direct connection with PC)



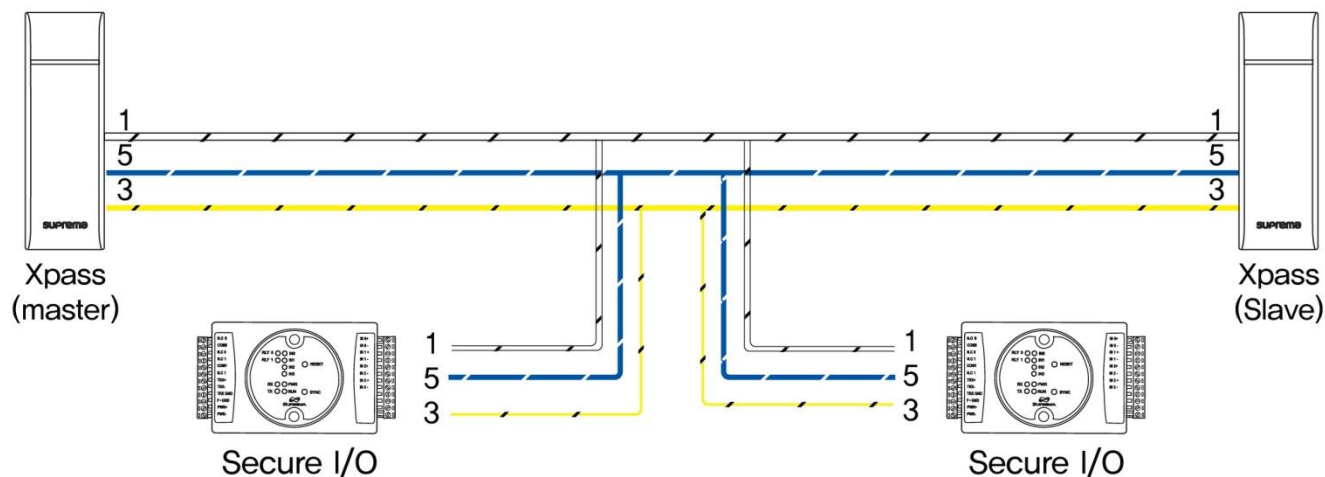
RS485 Connection for Host Communication

| Pin | Pin Name | Color |
|-----|----------|-----------------------|
| 1 | 485 GND | White (black string) |
| 3 | 485 - | Yellow (black string) |
| 5 | 485 + | Blue (white string) |



RS485 Connection for Secure I/O

| Pin | Pin Name | Color |
|-----|----------|-----------------------|
| 1 | 485 GND | White (black string) |
| 3 | 485 - | Yellow (black string) |
| 5 | 485 + | Blue (white string) |

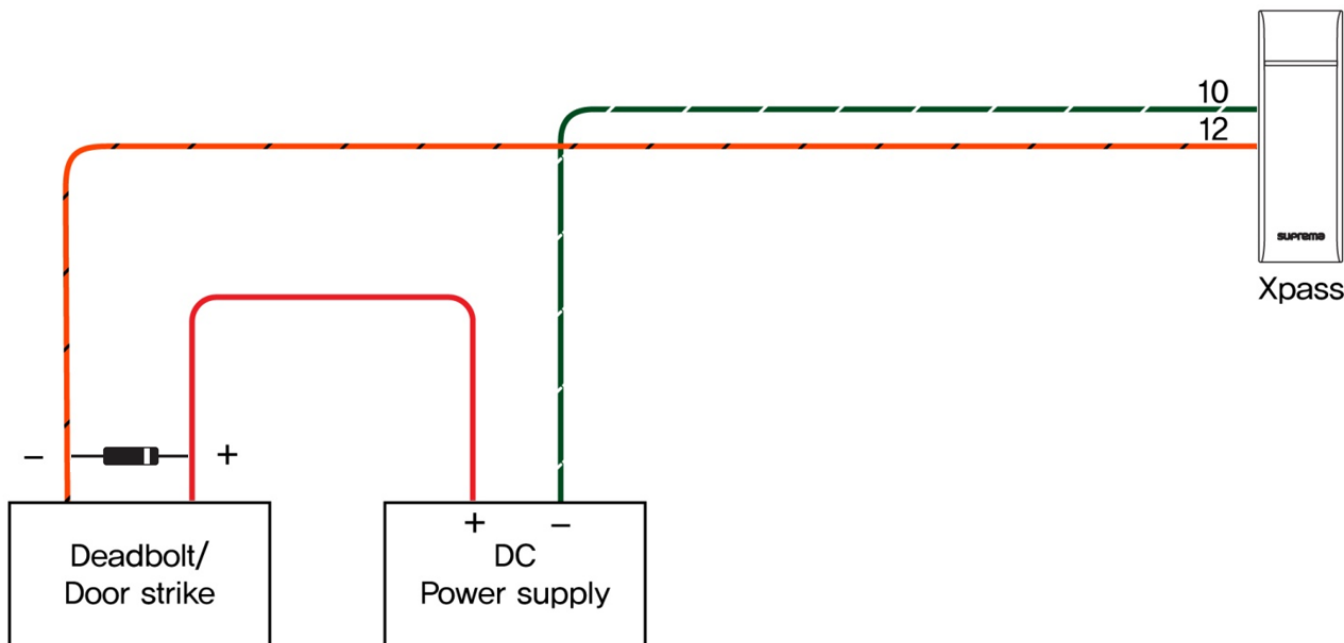


Max number of devices

Maximum eight(8) devices (including Master) interworks in an RS485 loop.

Relay Connection – Fail safe lock

| Pin | Pin Name | Color |
|-----|----------|-----------------------|
| 10 | RLY COM | Green (white string) |
| 12 | RLY NC | Orange (black string) |



Take care of the direction of the diode.

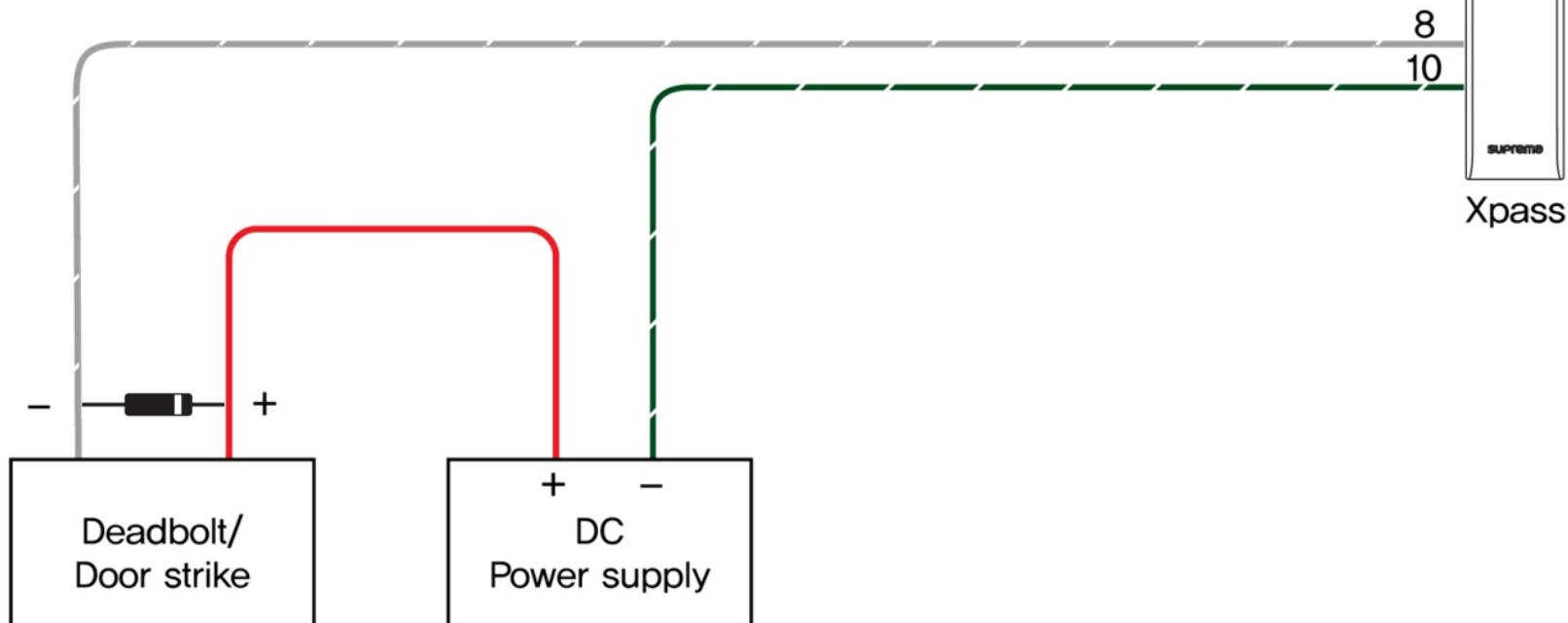
Make sure to install the diode near to the door lock.

Make sure to use different power supplies for the Xpass and the door lock.

Make sure to install the diode at both ends of the circuit as shown in the figure above in order to protect the relay contact from the reverse current that occurs when the door lock works.

Relay Connection – Fail secure lock

| Pin | Pin Name | Color |
|-----|----------|----------------------|
| 8 | RLY NO | Gray (white string) |
| 10 | RLY COM | Green (white string) |



Take care of the direction of the diode.

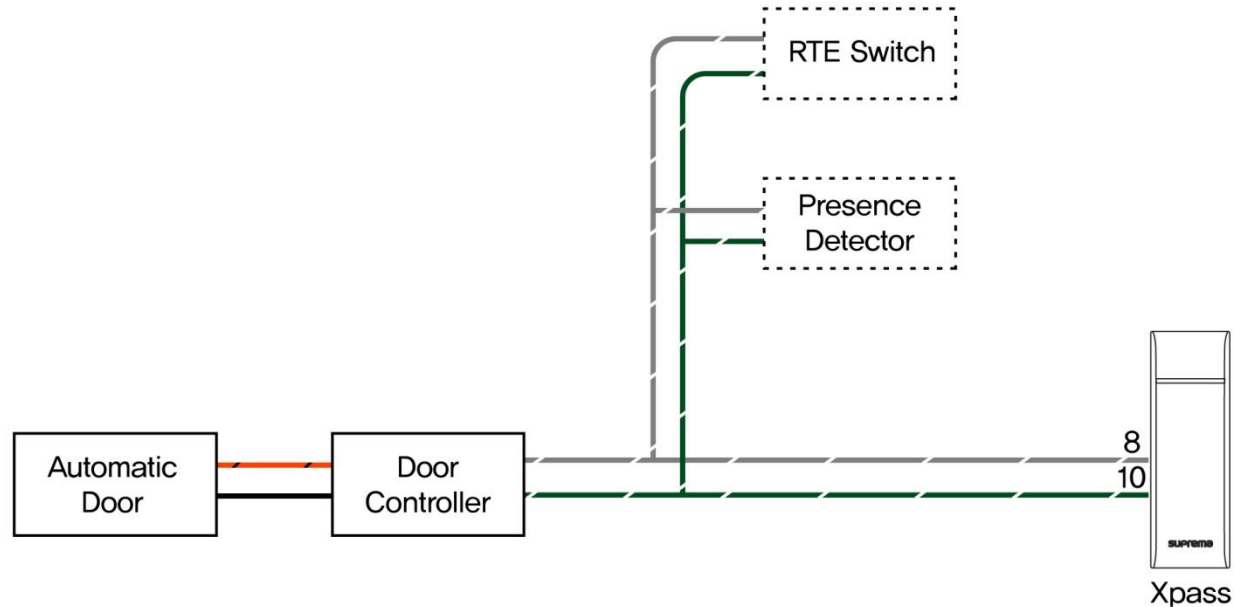
Make sure to install the diode near to the door lock.

Make sure to use different power supplies for the Xpass and the door lock.

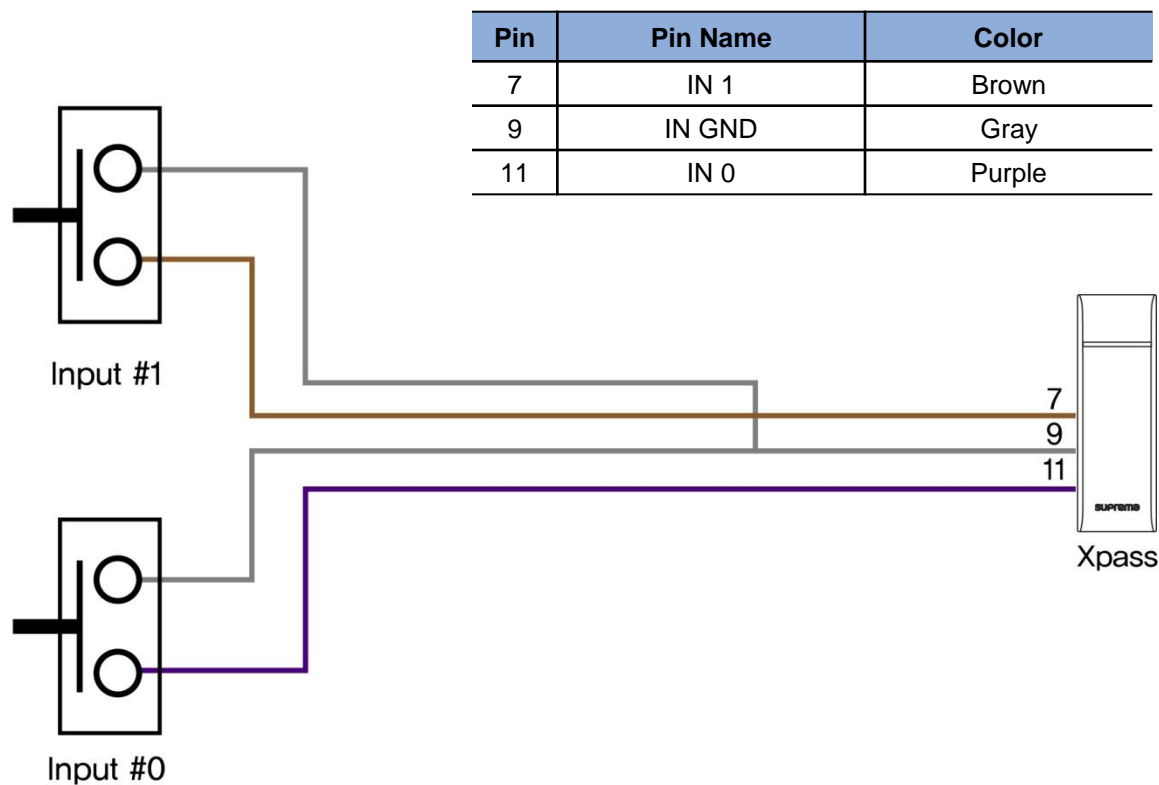
Make sure to install the diode at both ends of the circuit as shown in the figure above in order to protect the relay contact from the reverse current that occurs when the door lock works.

Relay Connection - Automatic door

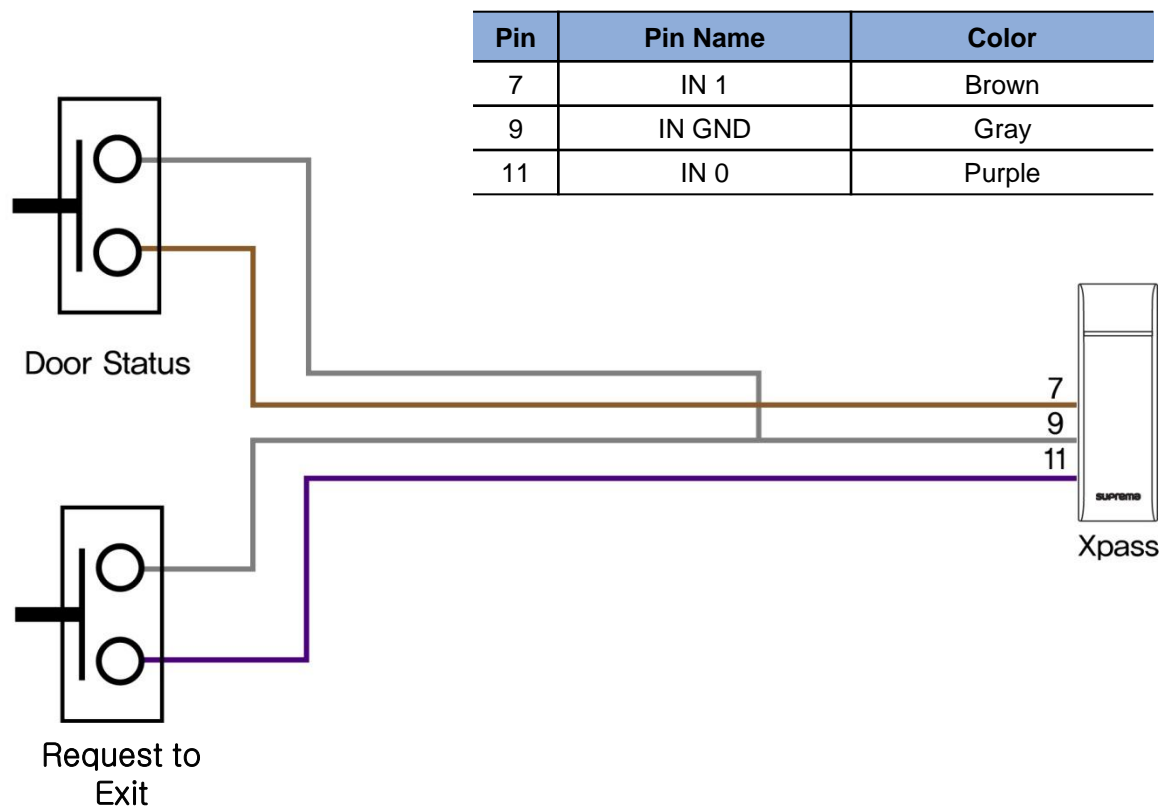
| Pin | Pin Name | Color |
|-----|----------|----------------------|
| 8 | RLY NO | Gray (white string) |
| 10 | RLY COM | Green (white string) |



Digital Input Connection (Alarm, Emergency S/W)

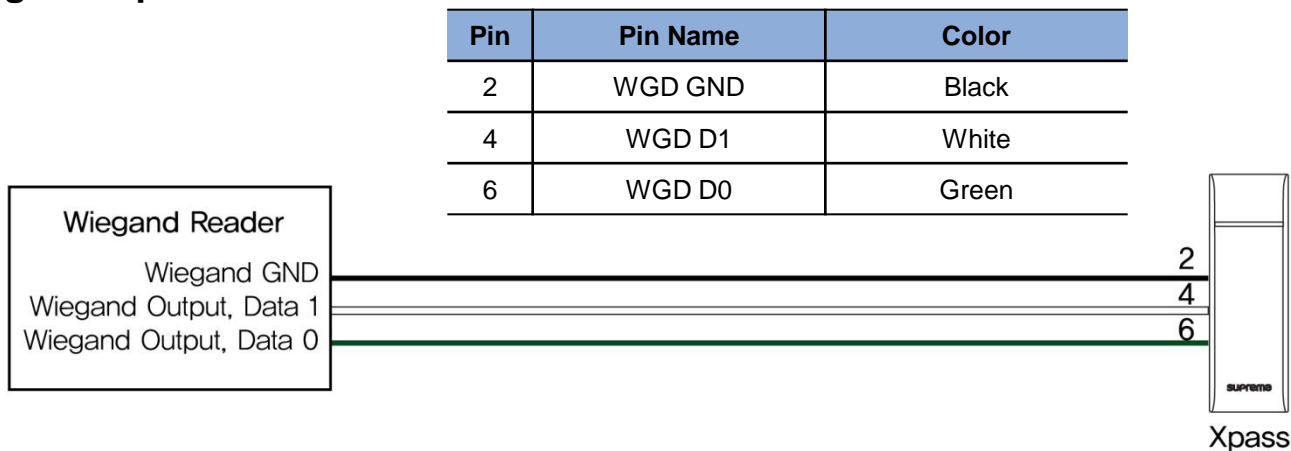


Digital Input Connection (RTE, Door sensor)

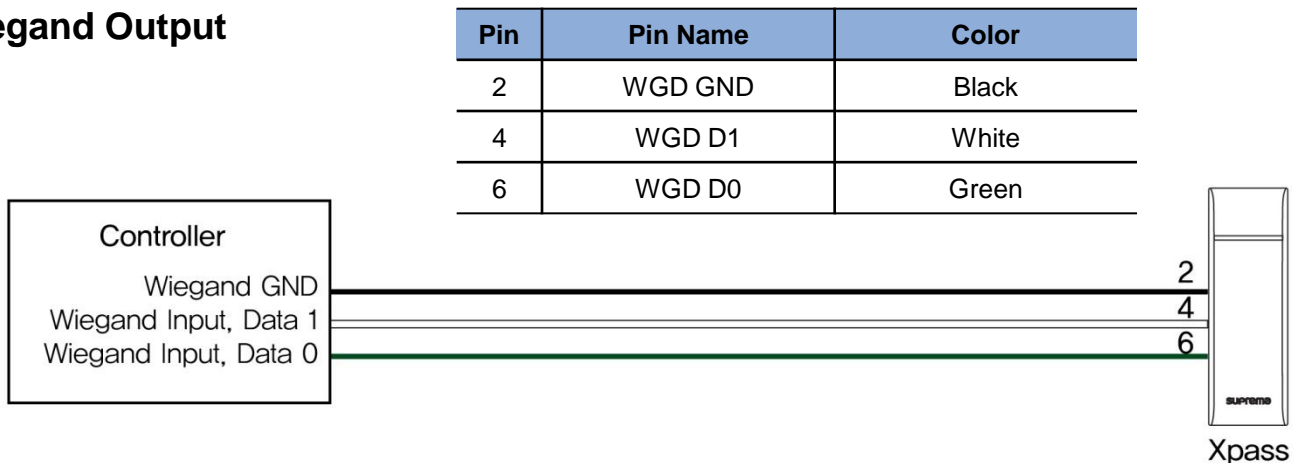


Wiegand Input/Output

Wiegand Input

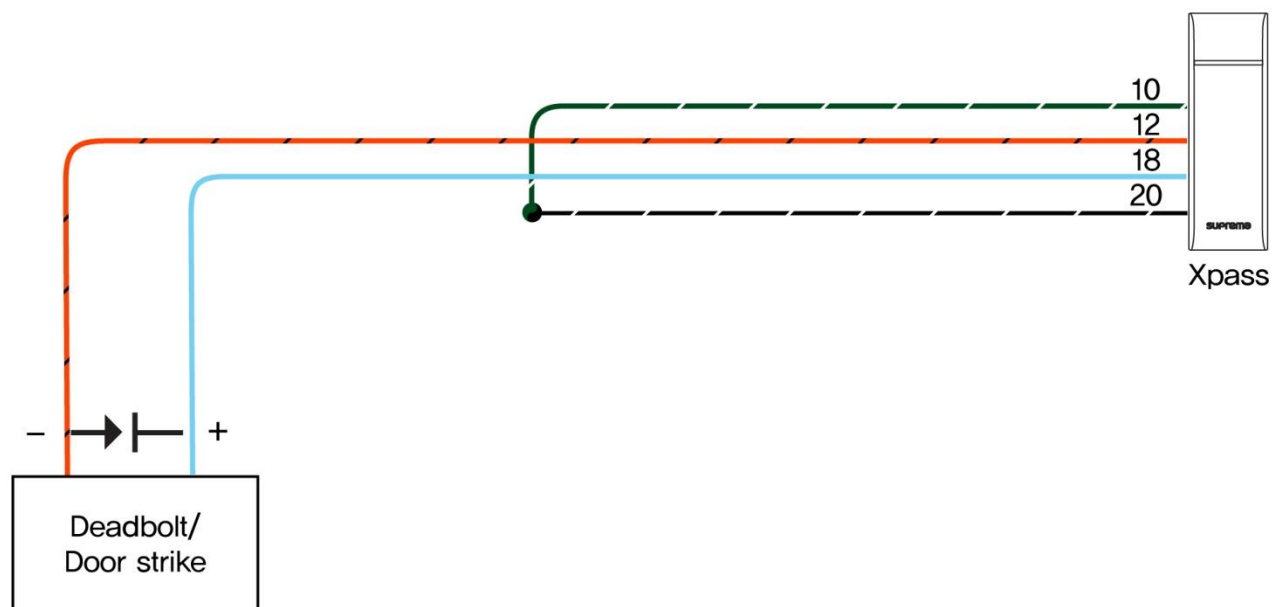


Wiegand Output



Output

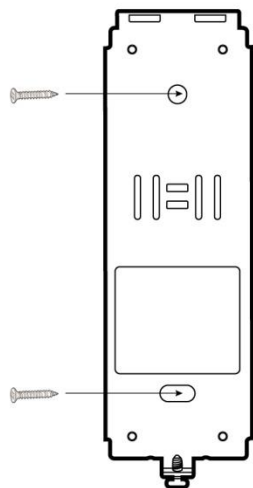
| Pin | Pin Name | Color |
|-----|-----------|-----------------------|
| 10 | RLY COM | Green (white string) |
| 12 | RLY NC | Orange (black string) |
| 18 | PWR OUT + | Light Blue |
| 20 | PWR OUT - | Black (white string) |



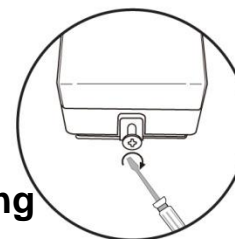
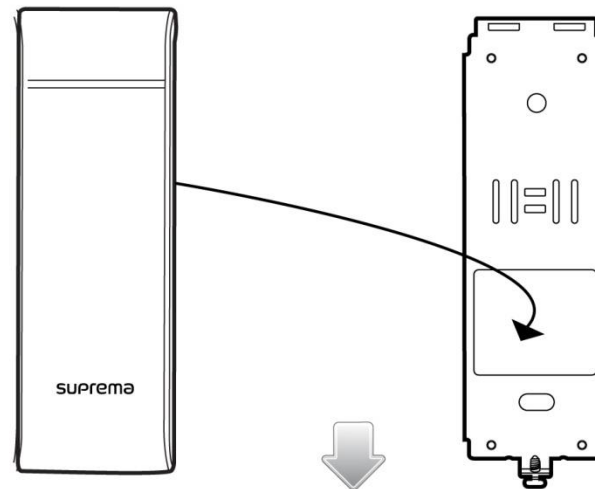
 **Caution : Max. 700mA is supplied using adapter for the external output.
Be careful to satisfy the power capacity in use.**

Installation of Wall-mount Bracket

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

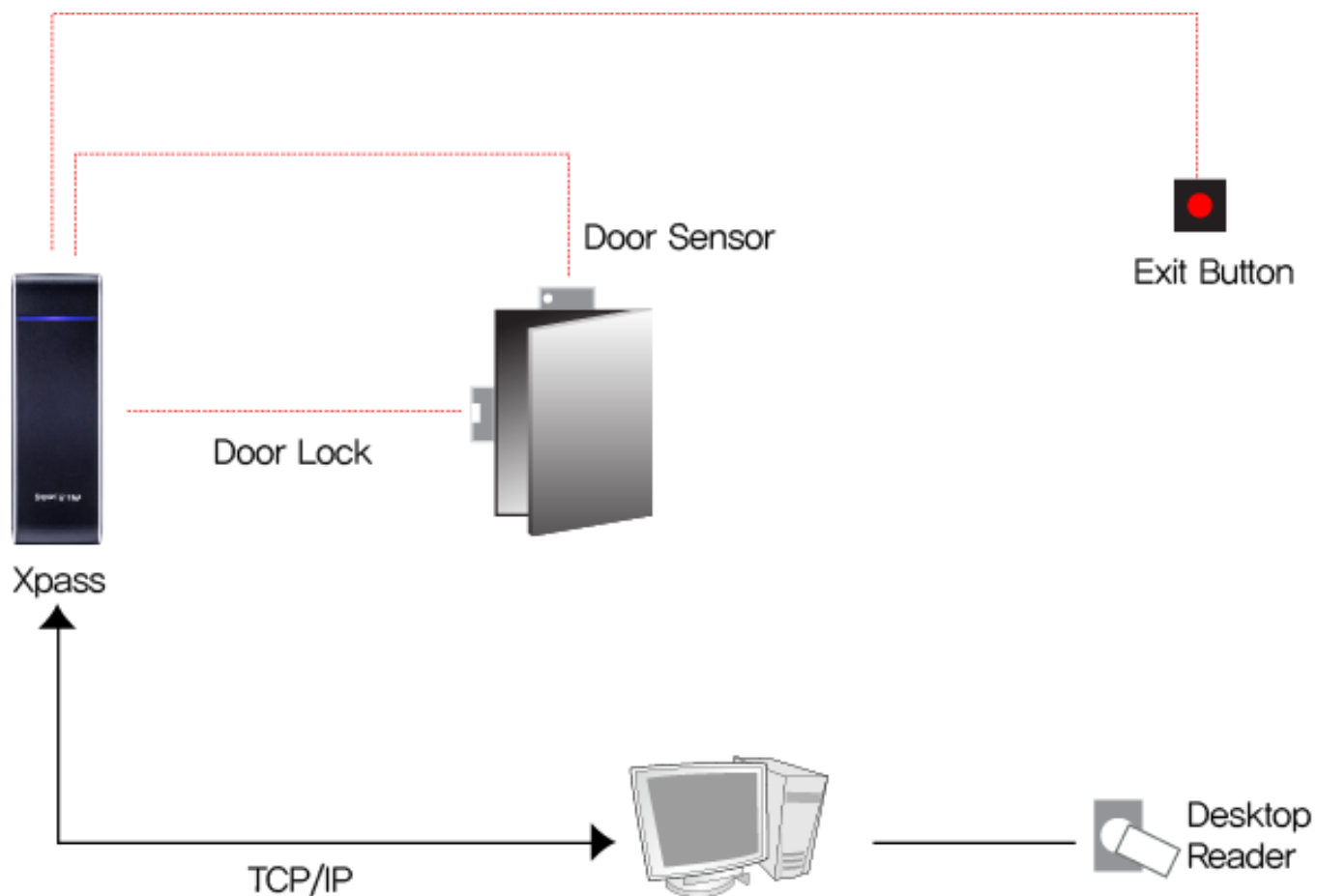


- Hook Xpass on the wall mount bracket

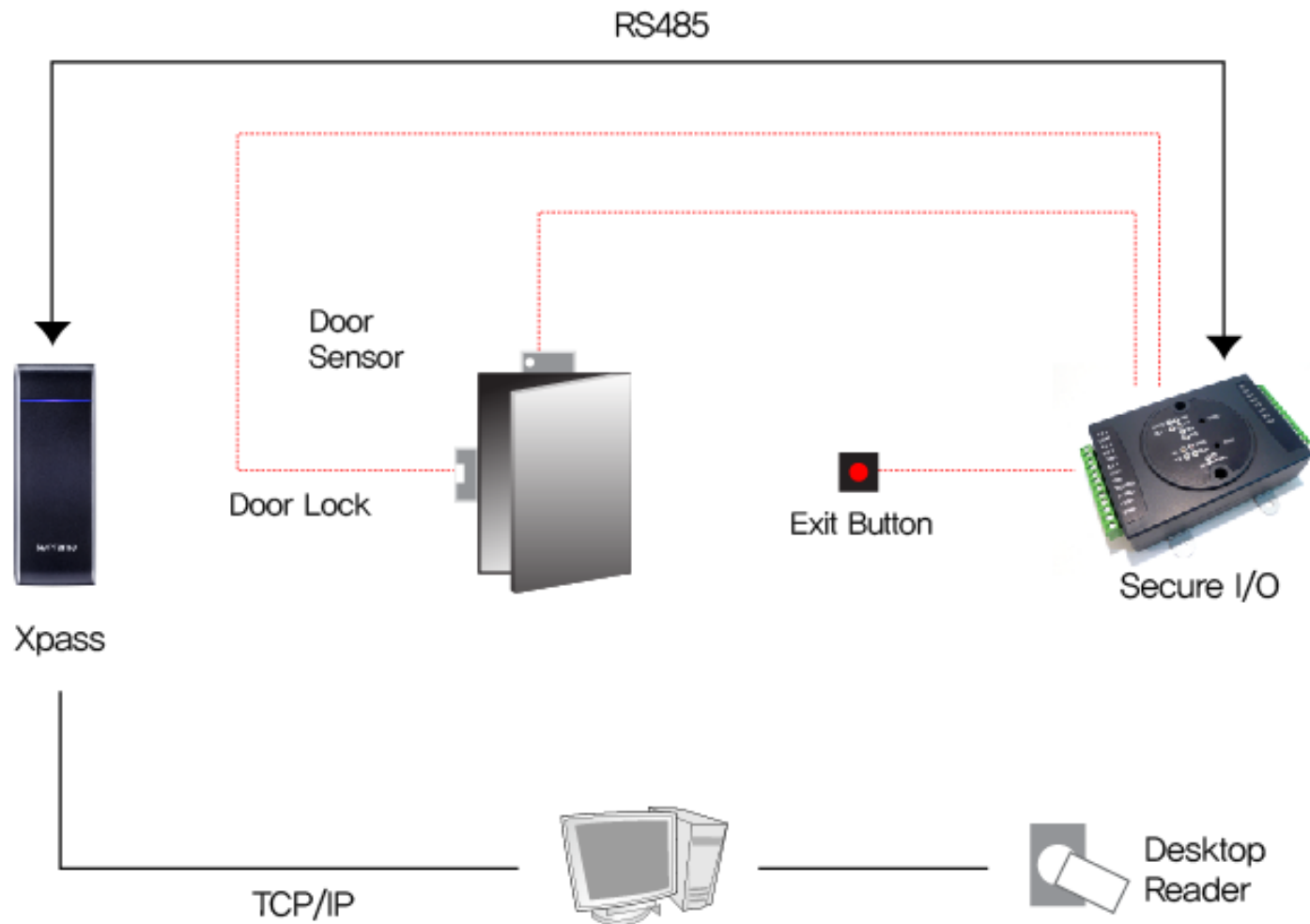


- Fix Xpass and wall mounting bracket using a wall mounting screw.

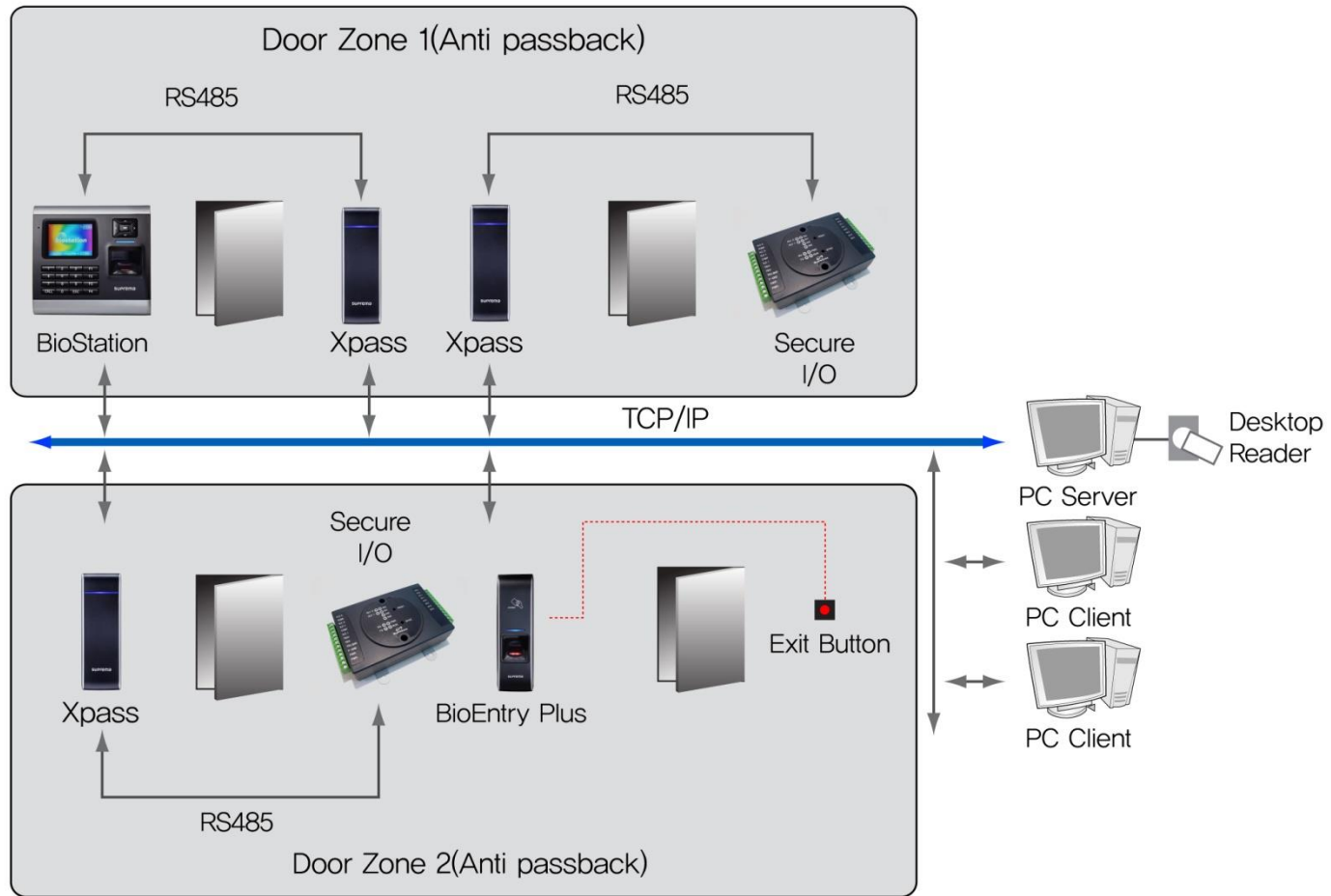
Installation Reference 1 - Stand alone



Installation Reference 2 – Standalone (Secure)



Installation Reference 3 – Network



Specification

| | |
|------------------------------|---|
| CPU | 32 bit Micro-processor |
| Memory | 8MB FLASH + 16MB SDRAM |
| RF Card | 13.56 MHz Mifare (XPM) 125 KHz EM Prox (XPE) 125 KHz HID Prox (XPH) |
| User Capacity | 40000 user |
| Log Capacity | 50000 log |
| Network interfaces | TCP/IP, RS485 |
| IP Rate | IP 65 class |
| Sound | Multi-tone buzzer |
| LED | Multi-color LED |
| RTC | Lithium-ion rechargeable batteries |
| I/O | Relay x 1 Tamper x 1 Switch input x 2 Wiegand x 1 |
| Power | 12Vdc, POE |
| Operating Temperature | -20 ~ 50°C |
| Size | 45 x 130 x 27mm (W x H x D) |
| Certificates | CE, FCC, KCC, IP65 |



Caution for RTC Battery

It may be occurred the risk of explosion for improper replacement of battery.
Please use the specified battery according to proper instruction.

Electrical Specification

| | Min. | Typ. | Max. | Notes |
|---------------------------------|------|------|-------------------|---|
| Power | | | | |
| Voltage (V) | 10.8 | | 13.2 | Use regulated DC power adaptor only |
| Current (mA) | - | | 182 | |
| Switch Input | | | | |
| VIH (V) | - | TBD | - | |
| VIL (V) | - | TBD | | |
| Pull-up resistance (Ω) | - | 4.7k | - | The input ports are pulled up with 4.7k resistors |
| TTL/Wiegand Output | | | | |
| VOH (V) | - | 5 | - | |
| VOL (V) | - | 0.8 | - | |
| Pull-up resistance (Ω) | - | 4.7k | - | The outputs ports are open drain type, pulled up with 4.7k resistors internally |
| Relay | | | | |
| Switching capacity (A) | - | - | 1 0.3 | 30V DC 125V AC |
| Switching power (resistive) | - | - | 30W 37.5V A | DC AC |
| Switching voltage (V) | - | - | 110 125 | DC AC |

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



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Website : www.supremainc.com

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.