# SI-58/98 Infrared Touchless Sensor Operation & Installation Manual



SI-58        SI-98



80
115
80
80
28
28
Unit : mm
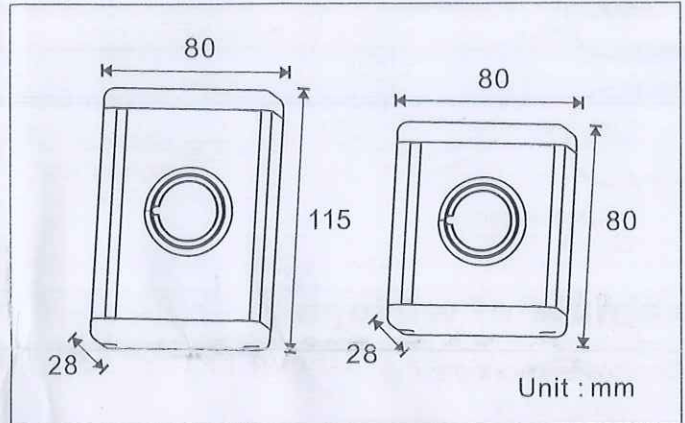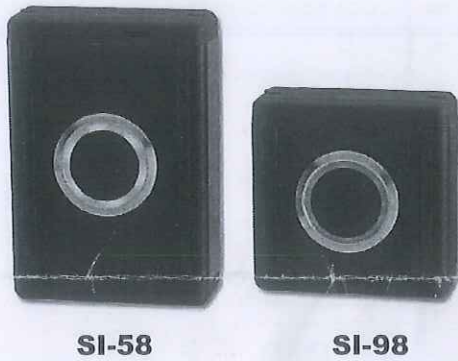
※ Please make sure no object (Include protection stickers) is blocking the infrared sensing panel before use.

## I. Features :

- Activate without pressing to prevent any disease contagion. It is suitable for access control system that widely used in public areas such as hospitals or restaurants. It is also can be used as auto-control detection.
- Built-in microcontroller with power on self testing function.
- Specially designed to prevent any interference from other infra-red.
- Double color status light, adjustable proximity range.
- Door opening time is able to set trigger state (0.5~30sec) or toggle mode output
- Operating temperature : -10℃ ~ +70℃ .

## II. Specification:

| | |
|---|---|
| Power input | DC12V~DC24V (±15%) |
| Range | 4~15CM(±25%) ※ Note1 |
| Output Loading | 1A@DC30V(Max.) |
| Output State | Trigger state (0.5~30sec) or toggle mode output |
| Life Time | Infrared sensor:100,000 hours / Relay mechanical lifespan:1000,000 times |
| Indicator | Standby : RED ; Proximity : GREEN (Color of indicator light is adjustable) |
| Case | Stainless Steel / PC / Aluminum Alloy |
| Current Consumption | Maximum current 45mA@DC24V |
| Weight | SI-58 ; 270g/ SI-98 : 202g (G.W.) |

※ Note1 : Different materials have different reflective rate. The value of the chart is based on the test of 18% neutral gray card.
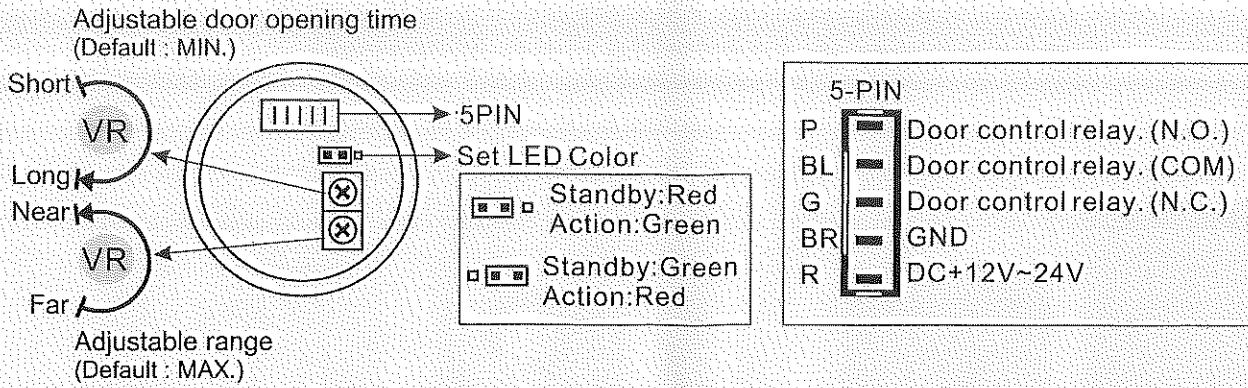
## III. Panel and Wirings :
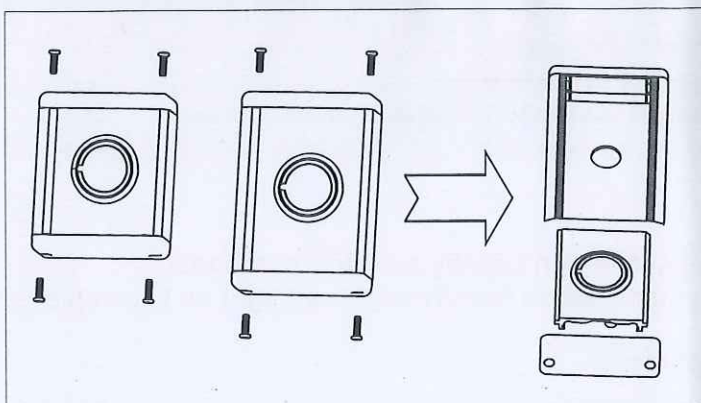


Front
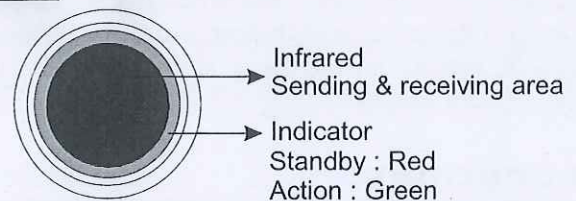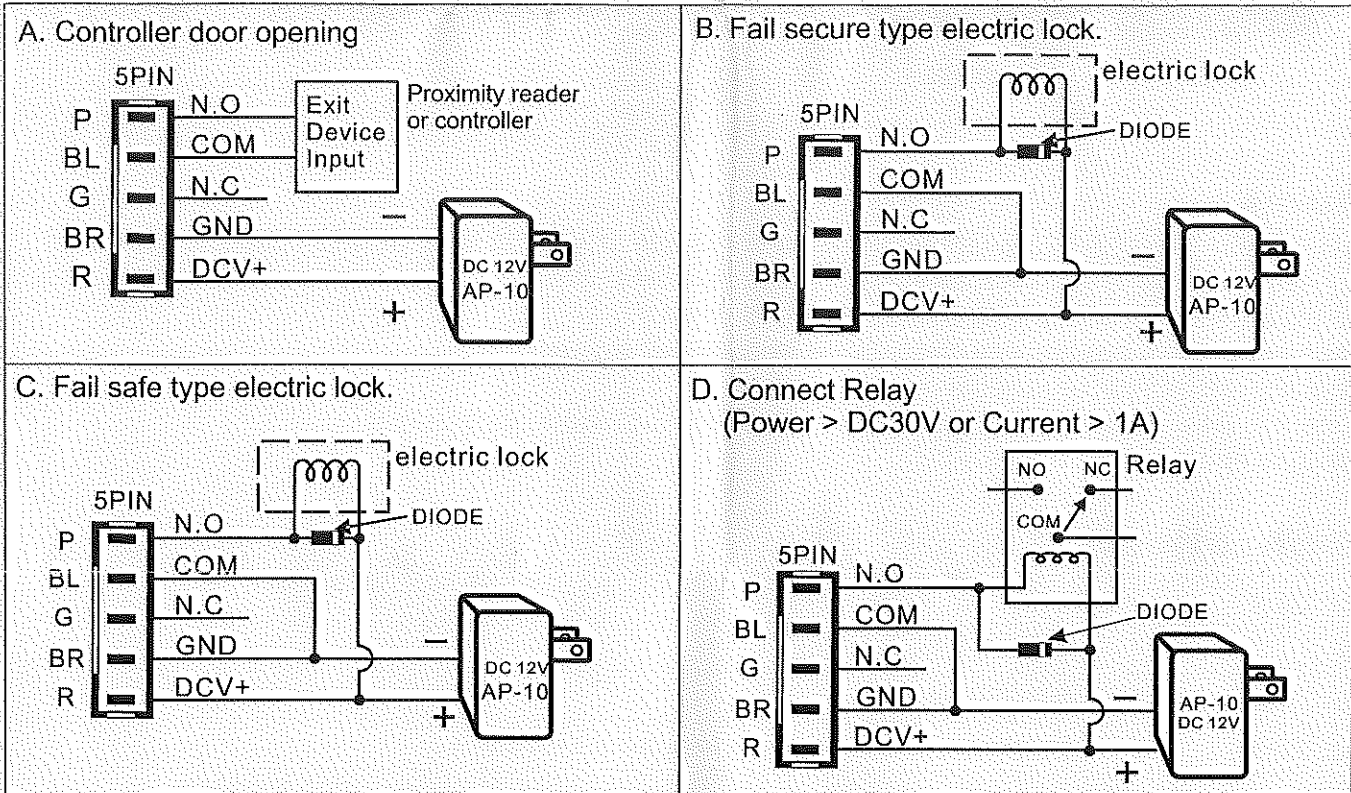


Infrared
Sending & receiving area

Indicator
Standby : Red
Action : Green

※ In order to ensure the operation of the infrared switch, please make sure no objects or any obstacles within 30cm (60° on the left and right) of the front panel of the switch to avoid any interference.

Adjustable door opening time
(Default : MIN.)

Short

VR

Long

Near

VR

Far

Adjustable range
(Default : MAX.)

→ 5PIN
→ Set LED Color

Standby:Red
Action:Green

Standby:Green
Action:Red

5-PIN

| P | Door control relay. (N.O.) |
| BL | Door control relay. (COM) |
| G | Door control relay. (N.C.) |
| BR | GND |
| R | DC+12V~24V |

# IV.Example of wirings :

**A. Controller door opening**

5PIN

| P | N.O | Exit Device Input | Proximity reader or controller |
| BL | COM | | |
| G | N.C | | |
| BR | GND | | |
| R | DCV+ | | |

DC 12V AP-10

**B. Fail secure type electric lock.**

electric lock

DIODE

5PIN

| P | N.O |
| BL | COM |
| G | N.C |
| BR | GND |
| R | DCV+ |

DC 12V AP-10

**C. Fail safe type electric lock.**

electric lock

DIODE

5PIN

| P | N.O |
| BL | COM |
| G | N.C |
| BR | GND |
| R | DCV+ |

DC 12V AP-10

**D. Connect Relay**
(Power > DC30V or Current > 1A)

NO  NC  Relay
COM

5PIN

| P | N.O |
| BL | COM |
| G | N.C |
| BR | GND |
| R | DCV+ |

DIODE

AP-10 DC 12V

※ Please connect to diode when the control terminal is loading in order to absorb surge to prevent damage to the sensor.

## Troubleshooting

Q : Always on action mode (indicator light does not change).
A : 1. Please wipe the surface clean such as oil stain, liquid drops or marks and remove any objects in front of the proximity that may interfere its proximity range.
  2. Please adjust the proximity distance. Shorter the distance may avoid interference.
  3. Please check the voltage. Lower voltage may shorten the proximity distance or cause the switch unable to function.
  4. Please check the delay setting time. If it is being set as too long or Toggle mode, it might affect its operation.
Q : Proximity failed even the infrared switch's power light is on.
A : 1. Please adjust the proximity distance to check if it is too short.
  2. Please check the current (12V~24V).The switch is unable to function if the voltage is incorrect.

# V. Precautions:

● Please do not conduct any fixing or modification to the system,unless by qualified personnel.
● Self testing function : Green light on for one second and no action from Relay →red light on to complete power on self testing).
● Warranty of the unit is one year under normal circumstances.

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