



User Manual

SR10D / SR20D

OSDP™ / NFC / BLE Reader



2002/95/EC



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1. Safety Instructions

The description below is to keep user's safety and prevent any product damage. Please fully read these instructions and use the product properly.



Danger: This symbol indicates that incorrect handling of the product may result in serious injury or death.



Warning: This symbol indicates that incorrect handling of the product may result in injury or property damage



CAUTIONS ABOUT POWER

- Only use the standard voltage (DC +12V / 350mA).
- If the product emits smoke or smells, stop using the product. Unplug the product from DC power source and contact nearest service center



CAUTIONS ABOUT INSTALLATION

- Do not install the product in a place subject to humidity, dust (metallic dust) or splashing water (raindrops).
- Do not install the product in a place not meeting the operating humidity and temperature specified in the specification.
- Do not install the product with tools such as driver in hand when power is being supplied.



CAUTIONS ABOUT USAGE

- Do not drop liquid onto the product such as water and give the product a severe shock.
- Do not place magnetic objects near the product.
- Do not replace the wiring cables installed by experts.
- Do not use the product under direct sunlight or in a heat-producing place such as a place near a heating apparatuses.
- If you want to relocate the installed product, turn power off and then move and reinstall it.
- Do not use flammable sprays or objects near the product.
- Do not let anyone but the manager touch the product except using it for normal purpose.
- If liquid has been spilled on the product, unplug it first.



CAUTIONS ABOUT CLEANING

- Do not clean the product with water. Clean gently with dry cloth or towel.
- Do not use chemicals such as benzene, thinner or acetone for cleaning.

2. General

SR10D and SR20D are fancy designed Smart reader compatible with various type of cards.

The SR10D and SR20D is epoxy molded so that it can stand any atmosphere and environment and can be easily mounted on door frame (Mullion) or flat wall surface.

It provides three colors Blue, Red, and Green for LED and ensure reliable and correct operation with Piezo Buzzer.

3. Features

- 13.56 Mhz Smart Card reader
- Read range : Up to 4 inch (10cm) for ISC80 / 170
- Compatible card type: ISO/IEC 14443 A & B, and FeliCa™,
ISO/IEC 15693 serial number, iCLASS® serial number
MIFARE® DESFire® EV1/EV2: UID + Application files ,
MIFARE® Classic: UID + Sectors
MIFARE® DESFire® EV1/EV2 with AES encryption
- Output format: Wiegand (Configurable), RS232 (User ID)
- Easy to install on Door frame (Mullion) or Flat wall surface
- LED & Buzzer control
- 3 color LED
- Supports OSDP™ V2 (Open Supervised Device Protocol) RS-485
- Encrypted communication between card and reader (AES 128-bit encryption)
- Firmware update
- Solid Epoxy potted
- Waterproof & Dustproof (IP66)
- Vandal proof (IK08)
- Compatible Controller: iCON100, iTDC, iMDC, iFDC, iEDC, IDTECK Standalone Controller

4. Specification

Model	SR10D	SR20D
CPU	32bit Microprocessor	
Frequency	13.56Mhz : ISO 14443A/14443B/15693/18092(NFC) 2.4Ghz : Bluetooth(BLE, V4.0)	
Reading Range	ISC80 / ISC170: Up to 4 inches	
Reading Time (Card)	30ms	
Power / Current	DC 12V / Max.120mA	
Input Port	2ch (2ch LED control port, 1ch Buzzer control port)	
Output format	Wiegand, RS232(option), RS485(OSDP™ v2) 1ch Open Collector Tamper output	
LED Indicator	3 Color LED (Red, Green, and Blue)	
Buzzer	Piezo Buzzer	
Operating Temperature	-20° ~ +50°C (-4° ~ +122°F)	
Operating Humidity	10% ~ 90% relative humidity non-condensing	
Color / Material	Dark Pearl Gray and Glossy Black / Polycarbonate	
Dimension (W x H x T)	W: 51 mm x H: 128 mm x D:25 mm	W: 80 mm x H: 140 mm x D:25 mm
Waterproof & Dustproof	IP65	
Certification	FCC, CE, KC, RoHS	

5. Identifying Supplied Parts

Please unpack and check the contents of the box.



Reader Module

(1ea)



SR10D/SR20D Bezel

(1ea)



3.5*40 Screw

(2ea)



6.0*30 Anchor Bolt

(2ea)

6. Installation

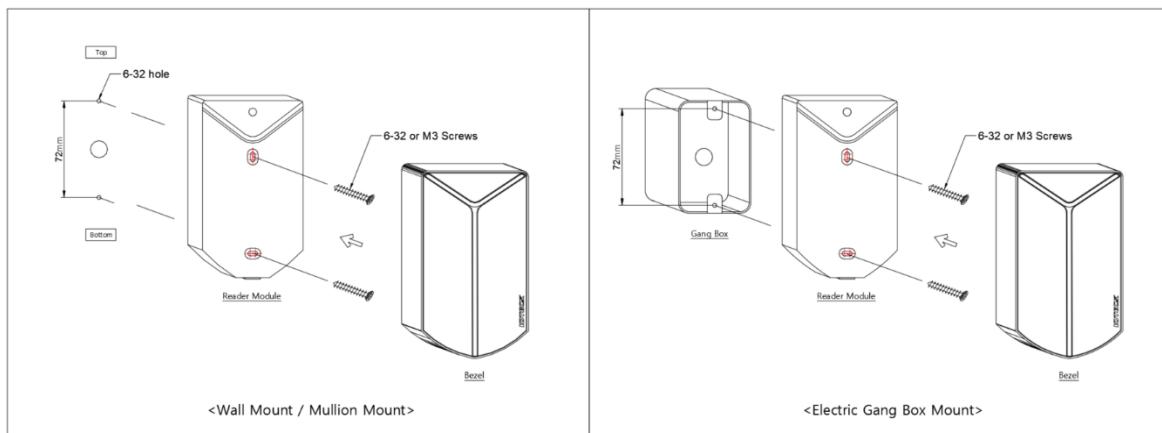
6-1. Mullion/Wall Mount

Drill two 3.5*40 or 3.5*25 screw holes in the designated location of the wall 6cm(2.32") apart vertically and drill one 12mm(0.47") hole for the controller cable in the center of the two holes.

6-2. Pass the reader cable through the center hole and install the reader module by using two 3.5*40 or 3.5*25 screws

6-3. Put bezel on the reader module and push bezel

6-4. To prevent the above phenomenon, the distance between the two readers should be installed over 20cm.

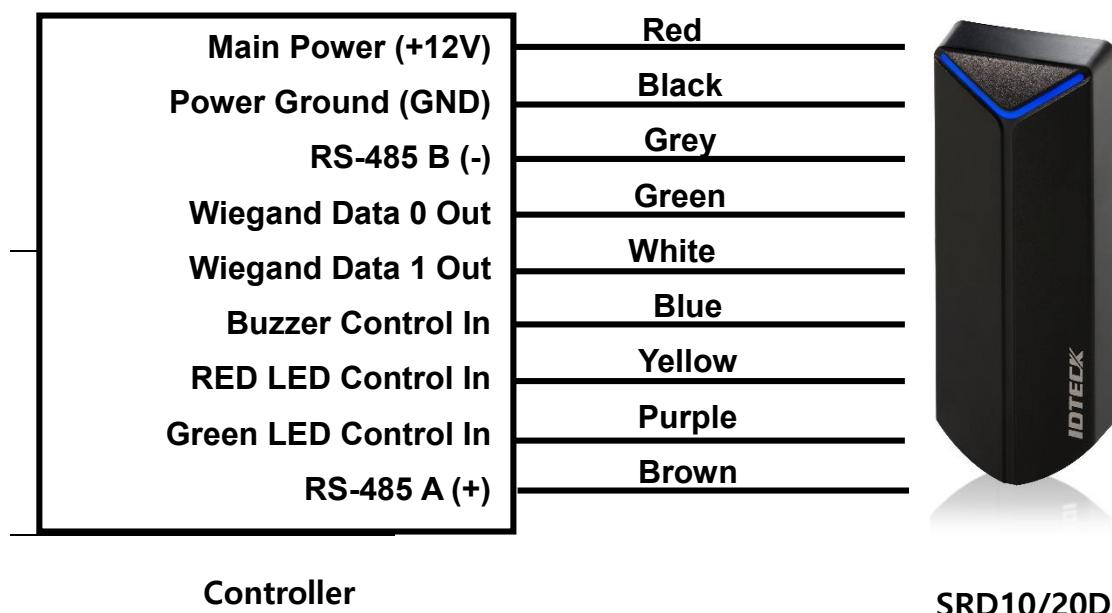


7. Wire Color Table of SR10D / SR20D

SIGNAL	COLOR
Main Power (+12V)	Red
Power Ground (GND)	Black
Wiegand Data 0 Out	Green
Wiegand Data 1 Out	White
Buzzer Control In	Blue
RED LED	Yellow
Green LED Control	Purple
RS-485 A (+) (RS232-TX)	Brown
RS-485 B (-) (RS232-RX)	Grey
Tamper Out	Orange

* Please cut out tail connector before installation.

8. Wire Connection to Controller



9. Operation

9-1. If power is supplied to the SR10D/SR20D, blue light is turned on and the reader goes into standby

9-2. Present a RF card close to the product until you hear beep sound. The LED of SR10D / SR20D turns into red simultaneously and the reader sends card data to the controller. And then, LED turns into blue and the reader goes into standby again for next reading.

9-3. LED Control

You can change LED color setting oppositely by connecting LED Control Input wire (Yellow wire) to Power GND. In this case, red light is turned on when the reader is on standby and once you present RF card, the LED of RF10/20 turns into blue simultaneously. And then, it turns into red again for next reading.

9-4. Buzzer Control

If Buzzer Control Input wire (Blue wire) is connected to Power GND, buzzer generates sound continuously. Cards cannot be read during the buzzer is operating.

10. FCC Registration Information

FCC Compliance Statement

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 interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Modifications:

Any modifications made to this device that are not approved by IDTECK may void the authority granted to the user by the FCC to operate this equipment.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if it is not installed and used in accordance with the instruction manual, it may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

This equipment complies with FCC RF exposure requirements set forth in an uncontrolled environment and can be used without any restriction.

The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter, except in accordance with FCC multi-transmitter product procedures

11. How to Make RMA Request (After Sales Service)

To make the RMA request, the product must be initially registered on IDTECK webpage. After registering the product, send it to IDTECK RMA Center.

Please follow the instructions below.

1. Please register the RMA request via IDTECK webpage.
: www.idteck.com "Support & Download" "Online RMA" "RMA REQUEST"
(Please refer to the IDTECK webpage for more details.)
2. RMA Code will be issued after the RMA Center reviews the RMA request form.
3. Enclose the product along with the RMA Code and send it to IDTECK RMA Center.
(Product without RMA Code is not accepted.)

If you have any questions or problems regarding the RMA services, please contact us using the contact information below. Friendly representatives at IDTECK are always standing by to provide the best after sales services

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The specifications contained in this manual are subject to change without notice.

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