



1. Document Version

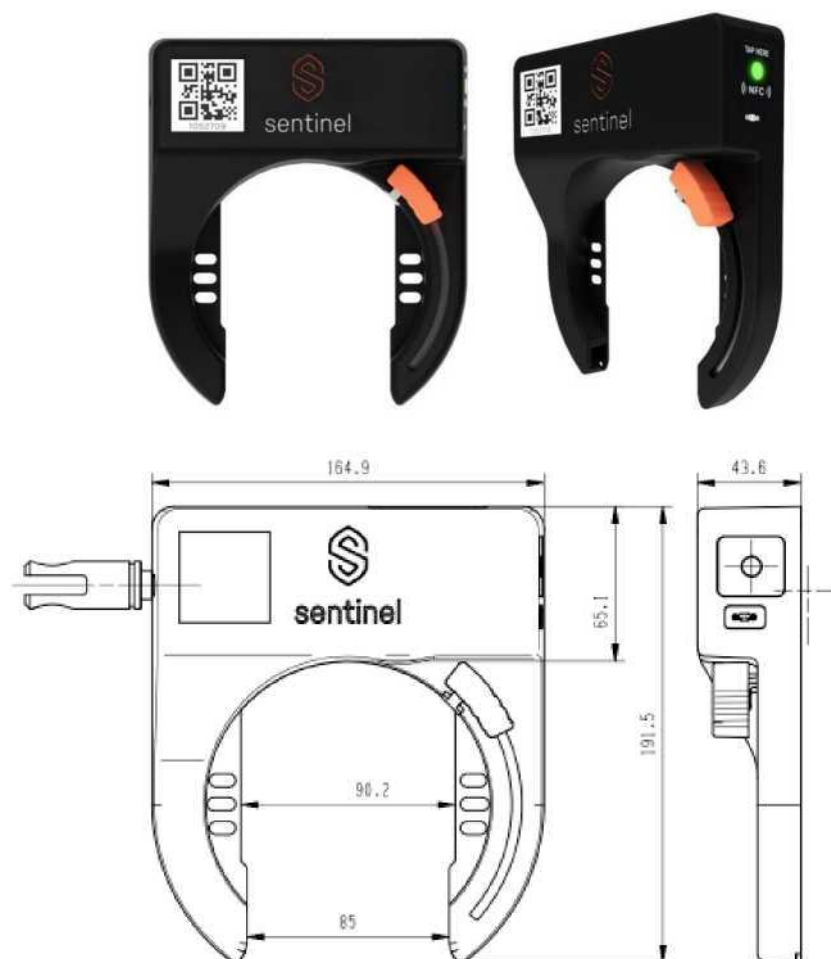
Revision	Revised by	Date	Description
V1.0	Alexander De Bievre	31/03/2022	First version

2. Overview

This document describes the basic information and functions of the Sentinel S90 smart lock.

3. Sentinel S90 smart lock introduction

3.1 Product appearance and dimensions



3.2 Basic parameters of the Sentinel M60 smart lock

Buzzer	385dB
Open lock	APP, or Back office unlock
Close lock	Manually
charging	5V/2A
Solar panel charging	4.5-6V
Battery	5000mAH/ 3.7V
Normal mode standby	30 days at 25°C
Power saving mode standby	12 months at 25°C
Shell material	ADC12/SUS304
Locking bar material	304 stainless steel locking bar.
Waterproof and dustproof	IP66
Operating temperature	-10°C ~ +60°C
Charging temperature	0°C ~ +45°C

Working humidity	10 ~ 95%
Stand-by current	< 6mA
SIM card	Nano SIM card
Motion sensor	3-axis motion sensor
Color	Black (Customization available)
Weight	1.2kg
Communication with E-Bike	UART/CANBUS (via S-BOX)
LED	<ul style="list-style-type: none"> - Red light on three times: Alarm event is triggered. - Blue breathing light: Registering to the network. - White light: Enter power saving mode or restart. - Continuous red light: Over-the-air (OTA) upgrade is in progress.

3.2.1 Bluetooth performance

Frequency	2402~2480MHz
Sensitivity	-93dBm(Typical)
RF Power	9dBm(Max)
Protocol	BLE5.0

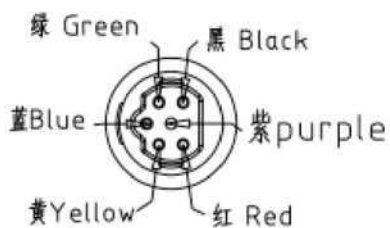
4. Function description

After the Bluetooth module is powered on, it broadcasts as a slave according to the BLE5.0 communication protocol. The broadcasting interval is 2 seconds, waiting for the host to search and connect.

After the Bluetooth module is successfully connected to other devices, handshake and encrypted communication are performed according to the communication protocol defined by our company.

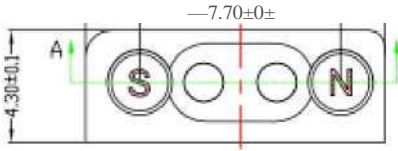
When the Bluetooth module is powered off, or the connected device cuts off the communication, the Bluetooth module stops working.

5.1 6PIN Connector



The S90 lock has a 6PIN connector, which allows for a lot of expandable features through the connector, including Solar panel charging, EBIKE integration, Type-C charging, etc.

5.2 Magnetic charging



Magnetic charging allows for a sleeker and simpler charging experience for the user.

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.

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

Note: This equipment has been tested and found to comply with the limits for 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 uses 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 of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.