

User Manual

1. Product Introduction

The capsule thermometer SV 223 is currently the most accurate and effective device for measuring animal core body temperature. It is implanted or swallowed into the animal's body for continuous measurement, and the temperature data can be monitored and recorded in real time using a smart terminal APP such as a mobile phone. It is widely used for measuring the core body temperature of experimental animals in scientific research in the fields of life medicine, pharmacology, and pathology.

2. Functional characteristics

Capsule size D 8 x L 22 / weight 1.3 g

Measuring range: 25 °C ~ 45 °C, ± 0.2 °C

- Measurement rate 10 seconds/transmission distance ≤ 3 meters
- Recording interval 5 minutes/Storage 14 days of data

Mobile app can monitor multiple thermometers at the same time

Send recorded data to the specified network address

Storage period 60 days/Activation working time 20 days

3. Instructions for use

-warn!

It is valid for 60 days after leaving the factory. Use it as soon as possible after purchase. It will work for 20 days after activation!

—Install App

TempView application is only applicable to smartphones with Android operating systems. It is not applicable to smartphones with Apple, Hongmeng, and other operating systems. Please download the application from the following address:

① <https://www.fmg-tech.com/oid1745038/Software-Download.htm>

② <https://www.pgyer.com/tempview>

③ Scan the QR code with your phone and download our App TempView from Google Play .



—Activate the thermometer

The thermometer can only be used after activation. Please follow the steps below to activate it:

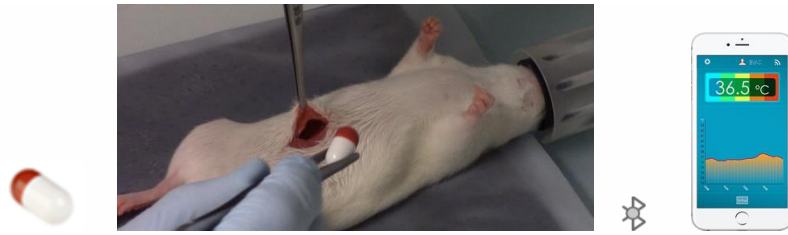
- ① Adjust the refrigerator compartment temperature switch to level 7 and run it for 2 hours **to keep the compartment temperature within the range of 2° C to 5° C** !
- ② Place the temperature catheter in a 58 °C hot water cup for 10 minutes and keep the water temperature $\geq 50^{\circ}\text{C}$.
- ③ When the timer is up, take out the thermometer immediately and place it on the lower shelf of the refrigerator. **Do not place it in a container.**
- ④ After 15 minutes, the App scans the device and searches for the Bluetooth broadcast of the thermometer , indicating activation. Otherwise, repeat the above steps.



Put the capsule into a cup of hot water for 10 minutes Place the capsules in the refrigerator for 15 minutes APP scan is activated

— Implantable temperature measurement

[SV223](#) was implanted into rats and mice for measurement by surgical operation. For detailed operation instructions, please see [the attachment](#) or download the teaching video www.fmg-tech.com/support/download/implant .



— Swallowing gastrointestinal tract measurement

Swallow the thermometer to measure the gastrointestinal temperature, and bring the phone within one meter of the capsule to read the measurement data. The capsule stays in the gastrointestinal tract for up to three days. When the capsule is expelled from the anus, download the temperature record sheet immediately to obtain complete measurement data.



Precautions

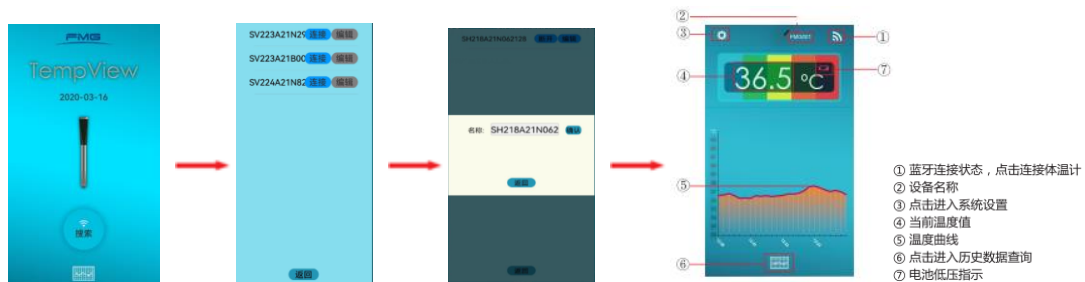
- ① Within a few hours of eating or drinking, smart terminals such as mobile phones will not be able to search for the wireless signal of the capsule thermometer.
- ② It is easiest to measure body temperature when the animal is fasting. Place the phone close to the animal's abdomen to receive the signal.
- ③ The gastrointestinal tract will attenuate or block the wireless Bluetooth signal, so you can wait for the capsule to be excreted from the body to download the temperature record data sheet.
- ④ Capsule thermometers are for single use only. Avoid repeated and cross use and need to be disinfected before use.

4. APP operation instructions

—APP Flowchart



—Connection and display




Click to search

Click to connect





Edit Name

Temperature display

—Setting parameters

Click  the icon in the upper left corner of the screen to set the temperature unit $^{\circ}\text{C}$ / $^{\circ}\text{F}$, alarm switch, and temperature alarm value.

—Download records

Click  the icon on the right to download the recorded data and save it in your phone; click  the icon to view the temperature record curve and table; click  the icon to send the temperature record table to the designated QQ / WeChat/email/computer. After the download is complete, press  the icon to delete the thermometer's historical record data.



5. Turn off the thermometer

After each use of the thermometer, it is recommended to shut it down and enter low-power standby mode, which can extend the life of the thermometer and reactivate it the next time you use it. The shutdown operation process is as follows:

- ① APP Bluetooth connection thermometer
- ② Place the thermometer in the freezer ($\leq -10^{\circ}\text{C}$)
- ③ When the APP Bluetooth connection is disconnected, it means the thermometer is turned off. Take the thermometer out of the refrigerator.
- ④ Note: Do not keep the thermometer in the freezer for more than 5 minutes.

6. About Femminger

Please visit our website www.fmg-tech.com to learn more about our products. If you have any questions, please contact our customer service: sale@fmg-tech.com, [13689561549](tel:13689561549).

附件 1 胶囊植入视频教学片

附件 2 胶囊植入操作手册

附件 3 植入式动物体温表