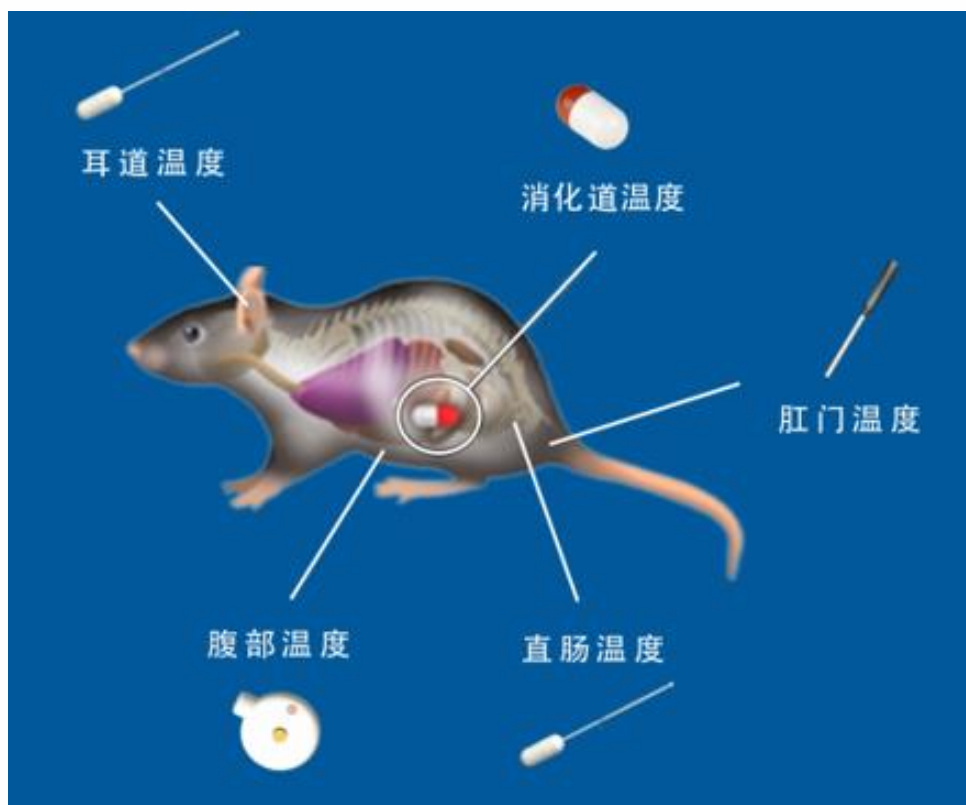


Guidelines for measuring Animal Temperature

1、 introduction

Due to the wide variety of animals and their large body shapes, it is a global problem to dynamically and continuously measure their core body temperature. After more than 20 years of hard work, we have filled the gap in this professional field and provide customers with a full range of animal temperature measurement equipment to meet the core body temperature measurement of large, medium and small animals. They have the advantages of accurate measurement, easy use and low cost, and can replace expensive equipment of foreign counterparts. **Wear or implant the thermometer on the animal's body, and use smart terminals such as mobile phones to monitor and download temperature record data in real time.**

2、 Measurement topology



3、 Equipment Introduction

3.1、 Features

Body temperature measurement range: 25 °C ~ 45 °C

Measurement accuracy: ± 0.2 °C

Measuring rate: 10 seconds

Recording interval and storage capacity: 5 minutes/ 12 days

Wireless transmission distance: ≤ 10 meters

Mobile phone APP can monitor multiple thermometer data

- Recorded data can be sent to a specified network address

3.2 Animal rectal thermometer SV 221



- * Shockproof and drop-proof 4mm diameter stainless steel tube construction *
- Measurement rate 10 seconds to record 48 hours of data
- * Sealed and waterproof, easy to clean with alcohol and sterilize at high temperature *
- for measuring anal temperature of large and medium-sized animals

3.3 . Capsule thermometer S V22 3



- * The most effective and accurate method for measuring core body temperature
- * Oral ingestion to measure and record gastrointestinal temperature
- * Wireless transmission distance 1 meter/battery life 20 days
- * Used for life science research and experimental animal temperature measurement

3.4 Rectal thermometer SV 224



- * Ultra-thin temperature probe inserted into rectum or subcutaneously *
- Wireless Bluetooth data transmission Battery life 20 days
- * Dynamically measure and record temperature values at a rate of ten seconds *
- for temperature measurement in experimental animals and life medicine research

3.5. Laboratory Animal Thermometer SV227



* Product size L20xW8xH7/weight 1.3g * Wireless transmission of body temperature data/32 hours of battery life after charging

*Probe D1.3xL50 inserted subcutaneously/into the ear canal *Suitable for measuring temperature by carrying on the tail or back of small animals

3.6. Mouse rectal Thermometer



*1.3mm diameter steel tube probe inserted into the mouse anus * Rechargeable and can be used repeatedly, with a battery life of 32 hours

*Product dimensions D1.3xL60/D18x H8 * Measurement rate 4 seconds, wireless transmission distance 20 meters

3.7 Core body temperature logger SN531



*Black background white light LCD display and four operation buttons * Bluetooth/Wifi communication data upload to cloud or smart terminal

* Wirelessly receive and store data from four core thermometers *Multiple working modes such as recorder/repeater/system integration

4. Equipment selection table

equip ment Features	SV 221 Animal rectal thermometer	SV223 Capsule Thermometer	SV 22 4 Rectal thermometer	SV227 Laboratory Animal Thermometer	SV228 Mouse and rat thermometer
Animal size	Medium and large	Large, Medium and Small	Small and medium	Small	Medium and large
Measureme nt method	Handheld anal test	Implanted or swallowed	Rectal/subc utaneous	Tympanic membrane/subcu taneous	Ear drum
Product Weight	5.6g	1.3g	1.3g	1.3g	3.6g
Product size	D4xL96	D8xL22	D8xL22/D1.2xL50	20x8x10/D1.2xL50	D25xH6/D3xL50
Measuring cycle	10 seconds	10 seconds	10 seconds	10 seconds	5 points
Recording interval	5 points	5 points	5 points	5 points	5 points
Transmiss ion distance	30 meters	1 meter	10 meters	10 meters	10 meters
Power supply	charger	Internal battery	Internal battery	charger	charger
Battery life	24 hours	20 days	20 days	32 hours	6 months
Measure ment accuracy	middle	Highest	high	high	high
Sealing grade	IP67	IP68	IP65	IP65	IP67

5. Temperature measurement of small animals

5.1 . Implantation for temperature measurement

The capsule thermometer SV223 is surgically implanted into small animals.



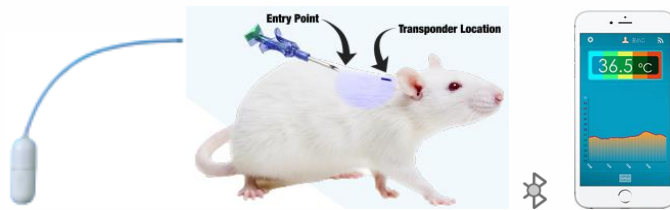
5.2. Rectal temperature measurement

thermometer SV224 or SV228 about 3 cm into the animal's anus to measure rectal temperature.



5.3. Implantation of subcutaneous temperature measurement

Use the experimental animal thermometer SV227, implant the temperature probe under the skin of the animal's neck, drip medical glue on the wound to close it, and then use medical tape to stick the thermometer to the outside of the animal.



5.4. Insert the ear canal to measure temperature

The experimental animal thermometer SV227 is worn on the animal's back, and the probe is placed deep into the animal's ear canal and fixed with glue to measure and read the ear canal temperature data in real time.



6. Temperature measurement of medium-sized animals

6.1. Measuring gastrointestinal temperature

The animals swallowed the capsule thermometer SV223 into their gastrointestinal tract to measure their core body temperature.



6.2. Rectal temperature measurement

Insert the stainless steel probe of the animal rectal thermometer SV221 into the anus about 5 cm, and read the body temperature measurement data after waiting for 5 minutes.



7. Temperature measurement of large animals

7.1. Measuring rectal temperature

Use animal rectal thermometer SV221, apply lubricating oil such as vaseline on the top of the stainless steel probe, insert it into the animal's anus, and slowly push it in to a depth of $\geq 3\text{cm}$.



7.3. Measuring ear canal temperature

Insert the SV227 probe of the experimental animal thermometer into the ear canal, and stick the plastic handle to the animal's ear with medical double-sided adhesive sticker or 502 glue.



8. TempView App Operation

—Install the App

TempView App is only available for Android phones. Please follow the steps below to download the App:

- ① Download TempView from Google Play .



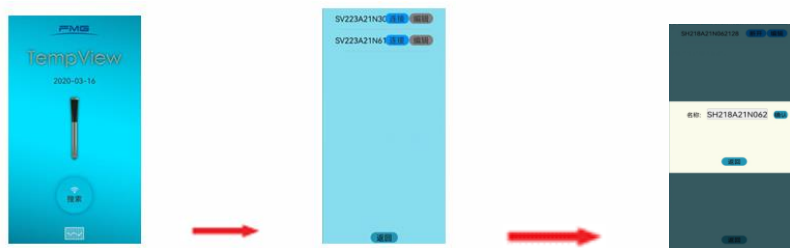
- ② Log in to Baidu Link

<https://pan.baidu.com/s/1anIXcbyUn2KP1lQxJzkkkQ?pwd=d2zt> Extract code d2zt, copy this content and open Baidu Netdisk mobile app, download address: pgyer.com/tempview


—App operation flow chart





—Connect and name the thermometer




—Download recorded data

Bring your phone within one meter of the thermometer, click  Download to record the data and save it in your phone;

Click  to view the temperature record sheet; click  to send the temperature record sheet to the designated network address (QQ / WeChat/email/computer) .

—Set thermometer parameters

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

9. About Shenzhen Flamingo Technology Co, Ltd (FMG): <http://www.fmg-tech.com>

Please visit our website www.fmg-tech.com to learn more about our products. If you have any questions, please contact our customer service: sales@fmg-tech.com, Vincent: [86-14714923381](tel:86-14714923381).

Annex 1 Capsule implantation teaching

Annex 2 Measuring rectal temperature of mice

Annex 3 Temperature measurement of fragrant pigs from the Institute of Zoology, Chinese Academy of Sciences

Annex 4 Haiyi Beagle swallows capsule to measure temperature

Annex 5 Hainan Medical University Capsule Implantation Operation Manual