

### Animal core temperature telemetering equipment

-Feeling the temperature and exploring the source of life

### Summary

Body temperature is one of the three vital signs of animals. Core body temperature measurement is widely used in life science, pharmacological analysis, pathological analysis, intensive care, sports training, battlefield treatment, agricultural breeding, and other fields. Due to the diversity of animal morphology, continuous acquisition of dynamic core temperature is a worldwide problem, facing many difficulties and challenges. Shenzhen Flamingo Technology Co,. Ltd has been working in the core body temperature measurement chip, biosensor, and microelectronic precision manufacturing neighborhood for more than 20 years, accumulated rich experience and is in the leading position in the industry. In order to promote the progress of human disease treatment and make micro wearable implantable medical and health devices come into our lives, a number of micro wearable implantable core temperature telemetry devices have been successfully developed.

### **Functional characteristics**

- Continuous measurement and recording of core body temperature of animals in free state
- Temperature measurement range: 25.0 ~ 50.0  $^{\circ}$ C, accuracy ± 0.2  $^{\circ}$ C
- Measure the temperature of gastrointestinal tract, anus, tympanic membrane and subcutaneous skin
- Measure the transmission rate for 10 seconds, and 4096 groups of data can be recorded
- Mobile app monitors data of multiple thermometers at the same time
- Record data is wirelessly transmitted to the network address specified by the user

# 1) Bluetooth Animal Thermometer SV221

The stainless-steel tube shell is sealed and waterproof, firm and durable, and the diameter of the temperature sensing head is 5mm. It is suitable for measuring the anal temperature of rats, pets, livestock and other large and medium-sized animals. The mobile phone downloads the app application software to observe the body temperature measurement and record the data. Fast charging for 30 minutes and 120 hours.



# 2) Wireless ear thermometer SV222

It is the world's first wearable nuclear temperature measuring instrument, weighing only 1.8g. It is placed in the human ear canal to continuously measure and record the tympanic membrane temperature. The measurement data is transmitted to smart terminals such as mobile phones via wireless network, and the body temperature curve and record form are displayed in real time. It is equipped with a charger, which can be used for 36 hours at a time. Application fields:

- ① astronaut, athlete, soldier training, medical pathology analysis;
- 2 Epidemic prevention and control, severe patients, and operators in extreme environments;
- ③ Families, hospitals, schools and kindergartens.



# 3) Capsule Thermometer SV223

Capsule thermometer miniaturized structure, weight 1.6g, size D8 x L22mm, the built-in battery life is 150 days. Animals can be swallowed into the gastrointestinal tract or implanted into the body to continuously measure and record the core temperature without side effects and adverse reactions. It can also be used to observe the core temperature of astronauts, athletes, and operators in extreme environments.



#### 4) Wearable animal thermometer SV224

The wearable animal thermometer has miniature structure, sealing and waterproof, weight of 1.7g, product size of d8xl22 and temperature sensing head size of d1.6xL70mm. It is easy to use and operate, and is suitable for experimental animals such as rats, rabbits and dogs. Wear it on the animal's back, abdomen, armpit and other body parts, and then insert the flexible warm head into the animal's anus, ear canal or subcutaneous implant to accurately obtain the body core temperature.

