IoT LN_2 Monitor Cap

Product Overview

The 200-type smart bottle stopper for liquid nitrogen tanks is specially developed and produced for measuring the liquid level and temperature of aluminum liquid nitrogen tanks. It is suitable for the liquid level and temperature monitoring needs of all brands of aluminum liquid nitrogen tanks.

The product adopts an ultra-low power consumption design scheme, with a liquid crystal screen displaying the liquid level and temperature values in real time. The built-in high-efficiency nickel battery can maintain the device's operation for about 2 years.

By using ultra-low temperature monitoring technology and Internet of Things communication technology, it can monitor the temperature and liquid level in the liquid nitrogen tank in real time and upload the data to the tank network platform through various communication methods such as LORA and NB-IOT. This enables remote viewing, remote alarm, data processing, etc., and fully ensures the safety of sample storage in the liquid nitrogen tank.

Functional Features

Integrated design for more convenient operation;

Real-time display function for temperature and liquid level data;

High-precision dual independent measurement system for liquid level and temperature;

Real-time remote alarm system to ensure sample safety;

Multiple alarm functions including SMS, voice, email, and WeChat;

Automatic cloud data backup and export functions;

Ultra-low power consumption design, no need for external power supply;

Selection parameters:

Specifications	SRIM-200B	SRIM-200D
Communication method	Lora	Nb-iot
Level measurement range	0～643mm (error ±5mm)	
Temperature measurement range	-200～+200℃（error±1℃）	
Application range	Applicable to all brands of aluminum liquid nitrogen tanks	
Operating temperature	-20～40℃	
Operating humidity	≤75%（25℃）	
Input power	3.6V	
Power supply method	Nickel battery powered (replaceable)	
Installation method	Replacement of liquid nitrogen tank stopper	

Note: Lora communication requires a data repeater for networking.