

CryoGuard Series



Product Introduction

CryoGuard series provide excellent protection for biological samples. Based on the kirin cloud management platform, the operation of the equipment is closely monitored to ensure the safety of stored samples and the traceability of operating data.

CryoGuard series completely solves the technical problems of applying information technology and low power consumption technology in the low temperature environment of -196°C, and realizes real-time monitoring of temperature and liquid level, remote monitoring of alarms and automatic backup and storage of monitoring data on the cloud platform. CryoGuard series perfectly combines advanced liquid nitrogen tank production and manufacturing technology with intelligent monitoring technology. The product is light in weight, small in space, large in capacity, and efficient in sample access. It can monitor the operating status of the container in real time. In case of any problem, it can alarm in time to ensure the safety of sample storage.

Product Features

- 01 Reliable real-time temperature monitoring
- 02 Reliable real-time monitoring of liquid level
- 03 Intelligent remote monitoring, need to configure data repeater
- 04 Automatically back up operating data and upload it to the cloud platform for permanent storage
- 05 Intelligent remote alarm system (telephone, SMS, E-mail, WeChat)
- 06 Excellent low-power technology, battery working time up to two years
- 07 Convenient battery replacement
- 08 Excellent internal temperature uniformity and stability
- 09 Ultra-low evaporation loss of liquid nitrogen
- 10 Compatible with 2ML and 5ML cryo vials (optional)
- 11 Unique and beautiful product appearance
- 12 Structure with double locks is safe and reliable
- 13 Vapor-phase storage is stable and safe (optional)
- 14 Safe and worry-free automatic filling liquid nitrogen system (optional)
- 15 Long five-year vacuum warranty

Product Advantages



Optimized design

Through a large number of experimental verifications, we have the best balance in product capacity, using efficiency and storage time.



Higher performance

High vacuum coverage and innovative structure design, available for longer storage time, lower liquid nitrogen consumption, and greatly reduce liquid nitrogen volatilization rate.



Temperature monitoring

The monitoring system based on the intelligent control system and high-precision platinum resistance temperature sensor can display the temperature in the tank in real time with an accuracy of $\pm 0.1^{\circ}\text{C}$. Users can set the alarm mode and alarm value according to their needs.



Level monitoring

The monitoring system based on the intelligent control system and the original capacitive liquid level sensor can display the liquid level height in real time to ensure the effective and reliable liquid nitrogen capacity in the tank and the safe sample storage.



Larger volume

Compared with similar products, the area of land occupied is smaller, the storage sample is larger, which can save space and reduce the storage cost of unit samples.



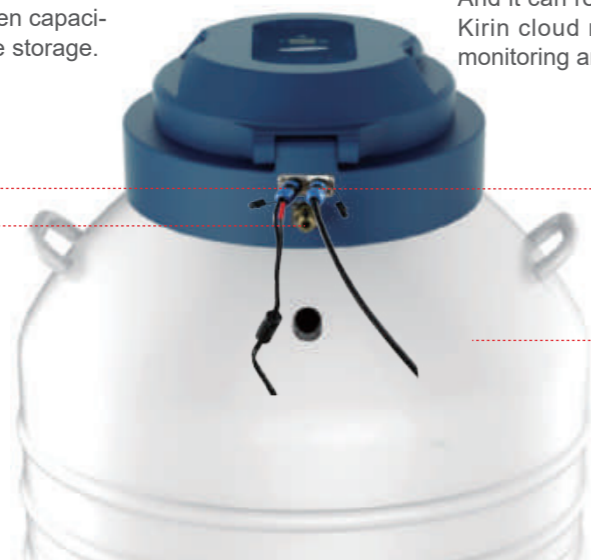
Easier to use

Humanized structure design and intelligent liquid nitrogen management system can realize WIFI / 4G networking, support local sound and light alarms and telephone, SMS, E-mail, WeChat remote alarms. Operation data can be saved and traced permanently, downloaded and archived on your demand; The advanced independent temperature and capacitive liquid level monitoring system, making your sample storage more convenient and safety, and allowing your device to run more reliable.



Intelligent system

Visual display of main parameters such as liquid nitrogen tank level and temperature, and permission settings of the liquid nitrogen tank. And it can realize data interconnection with the Kirin cloud management platform for remote monitoring and alarm.



Automatic power supply

Automatic refilling port

Automatic refilling signal

AF-type cryosmart tank

Technical Parameters

Model	Cryoguard 2400	Cryoguard 3000	Cryoguard 3600	Cryoguard 4800	Cryoguard 6000
Model	Cryoguard 2400AF	Cryoguard 3000AF	Cryoguard 3600AF	Cryoguard 4800AF	Cryoguard 6000AF

Storage capacity

	Cryoguard 2400	Cryoguard 3000	Cryoguard 3600	Cryoguard 4800	Cryoguard 6000
2ml vials (100wells/box)	2400	3000	3600	4800	6000
Cryorack	6	6	6	6	6
Boxes per Cryorack	4	5	6	8	10
5ml vials (81wells/box)	972	972	1458	1944	2430
Boxes per Cryorack	2	2	3	4	5

Cooling performance

	Cryoguard 2400	Cryoguard 3000	Cryoguard 3600	Cryoguard 4800	Cryoguard 6000
Volume (L)	65	95	115	140	175
Static daily consumption (L/day) *	0.79	0.81	0.83	0.85	0.87
Static daily holdover time (days)*	83	117	139	165	201

Size & Weight

	Cryoguard 2400	Cryoguard 3000	Cryoguard 3600	Cryoguard 4800	Cryoguard 6000
Inner diameter of neck (mm)	216	216	216	216	216
Overall height (mm)	740	805	875	975	1090
Out diameter of tank (mm)	681	681	681	681	681
Empty weight (kg)	41	45	49	54	58

* Static daily consumption and holover time are theoretical values. Practical data will be affected by the processing of user, atmospheric conditions, working conditions.