

Monitor:

- Temperature is monitored via binary channels connected "T" thermocouple
- Temperature is monitored by thermal control group whose level range is 6 inches (150mm), the accuracy is +1/-0.0 inch (+25/-0.0mm)
- Temperature control can be displayed as degrees Celsius, Fahrenheit, Kelvin and scale.
- Vacuum fluorescent display (VFD) improves more angles visibility and provide clearer image display.
- Cryowire safe communication provides a fleible, safe and powerful solution for all alarm conditions

Alarm:

- High temperature alarm
- Extra-high liquid level alarm
- Extra-low liquid level alarm
- Remote alarm
- Sensor faulty alarm
- Audible/visual alarm provides notification for important operations, ensuring safety
- Alarm silence/remote alarm detection circuit
- Low LN2 supply alarm
- Lid opening alarm

Safety:

- Security is enhanced by password and system access.
- Controller can store up to 500000 recent events, including temperature, LN2 liquid level, system access and system alarm.
- Audible/Visual alarm indicates important operations, ensuring safety.
- Optional backup battery can provide maximum 3 days full-load operation when power failure, enhancing safety of sample.



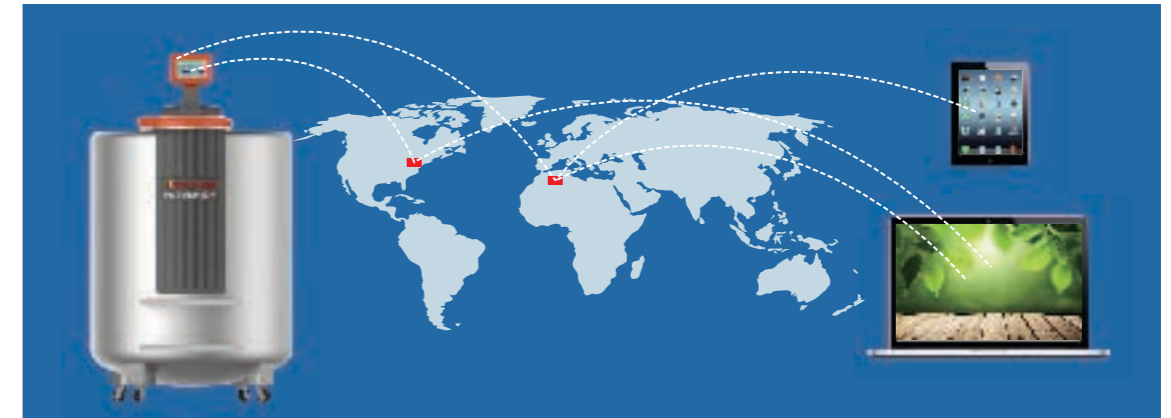
Real-time displaying real sample temperature

Biobank series freezer can real-time display top sample temperature as well as freezer top temperature and 4 bottom temperature, showing the real sample temperature, which will dispel customer's doubt of sample temperature. PT1000 temperature is adopted, accuracy can reach 0.01 C



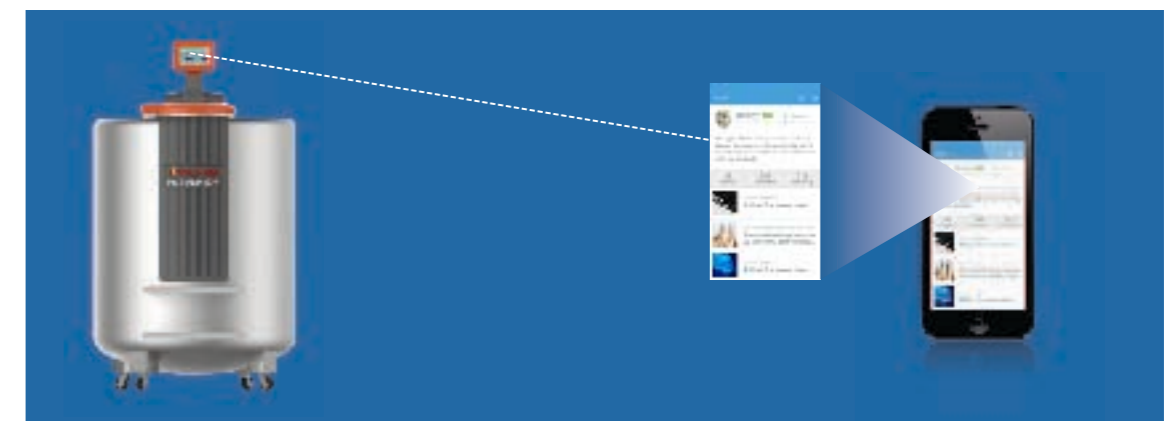
Wireless monitor and worldwide access

You can remote monitor the operating status (freezer top temperature, liquid level, supply tank pressure, liquid level, system event, system access) of your freezer in any country, as long as WIFI is available. This function can be activated or shut down at your options.



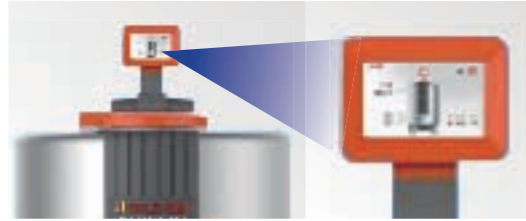
Message alarm function worldwide

No need extra hardware or software, message alarm (showing high temperature alarm, extra high/low liquid level alarm, sensor fault alarm, lid open alarm, etc) can be sent to your mobile, technical support and service of manufacturer and any other access staff (max 10 access persons can be set) when freezer fails. Three default alarm temperature can be set: -160 C, -155 C and -150 C, which has increasing alarm frequency. And when the temperature goes up to -150 C, freezer will call customer automatically, ensuring the absolute safety of samples. You can receive the alarm any where in the world.



Data and curve recording

- Convenient RS232 data port
- 15 years data recording can record max. 500,000 latest event, including temperature, LN2 level, system event, system access and system alarm.
- History curve records freezer temperature, liquid level, etc.



Power supply:

- 110V~240V AC power supply, UL/CSA certificated transformer.
- 12V DC power supply can be connected with main and auxiliary appliances; optional 12V backup power; remote alarm

Auto/manual LN2 filling, providing both convenience and safety

Biobank series freezer has two LN2 filling method: auto and manual. In general condition, auto mode LN2 is filled automatically. When auto mode fails, manual valve can be used to fill LN2 to ensure normal LN2 supply. Customer does not need to pour LN2 into freezer which will cause bad effect to samples. Besides, auto/manual LN2 filling is able to vent warm N2 from the supply line before initiating a fill.

Sample safety

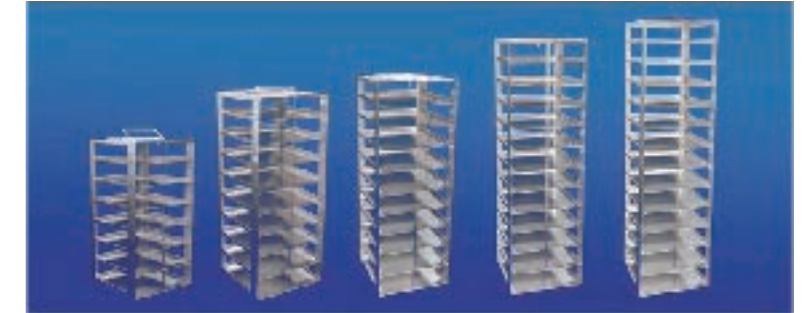
- 4 liquid level sensors to control liquid level alarm and liquid refill, real-time display liquid level and liquid volume.
- Temperature is monitored via binary channels connected "T" thermocouple, whose accuracy is $\pm 30/0.0$ mm (22K/52K) and $\pm 1/0.0$ in (126K), temperature can be displayed in Celsius, Fahrenheit, Kelvin and thermometric scale.
- Safety password protection: user can define different levels of password
- Patented bottom LN2-filling design reduces LN2 flow speed and pressure, with freeze protection and splash proof protection, ensuring high sample survival rate.
- The optional backup battery provides power for up to three days of operation including LN2 auto-filling when power failure occurs, thereby enhancing the safety of sample

Auto defog function for quick observation of sample

Auto defog switch will be started automatically when we open the lid, samples will be observed within seconds, which is convenient for fetch of samples. For similar model of other brands, which don't have this function, nitrogen fog will block observation of sample, you need wait 5~10 min or use a light to provide illumination.

Cryogenic rack

SR13-100	Hold 13 nos. of 100 cell box
SR13-25	Hold 13 nos. of 25 cell box
SR14-100	Hold 14 nos. of 100 cell box
SR14-25	Hold 14 nos. of 25 cell box
SR15-100	Hold 15 nos. of 100 cell box
SR15-25	Hold 15 nos. of 25 cell box
SR16-100	Hold 16 nos. of 100 cell box
SR16-25	Hold 16 nos. of 25 cell box
SR17-100	Hold 17 nos. of 100 cell box
SR17-25	Hold 17 nos. of 25 cell box



Blood bag rack

BR5-250	Hold 5 nos. of 250ml blood bag
BR6-250	Hold 6 nos. of 250ml blood bag
BR8-25	Hold 8 nos. of 25ml blood bag
BR8-50	Hold 8 nos. of 50ml blood bag
BR9-25	Hold 8 nos. of 25ml blood bag
BR9-25	Hold 9 nos. of 25ml blood bag
BR10-25	Hold 10 nos. of 25ml blood bag
BR10-50	Hold 10 nos. of 50ml blood bag

