

# Humidity Stability Test Chambers



# Precision Stability



Nor-Lake Scientific Humidity Stability Test Chambers are patent-pending and are the first in the industry to utilize natural hydrocarbon refrigerants. With a programmable logic PID controller, variable speed compressor and ultrasonic humidification, these are the most advanced and capable test chambers on the market.

Nor-Lake Scientific Humidity Stability Test Chambers are ideal for ICH Q1A stability testing, shelf life, package testing and accelerated aging for a variety of product and packaging in these industries:



**Environmental**



**Industrial**



**Clinical**



**Life Science**



**Any Application with  
Controlled Temperature**

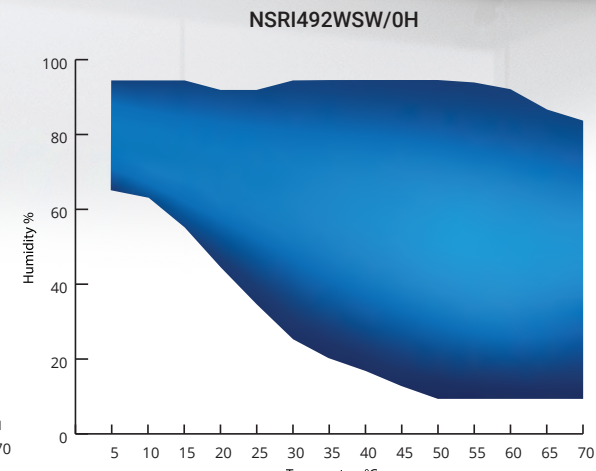
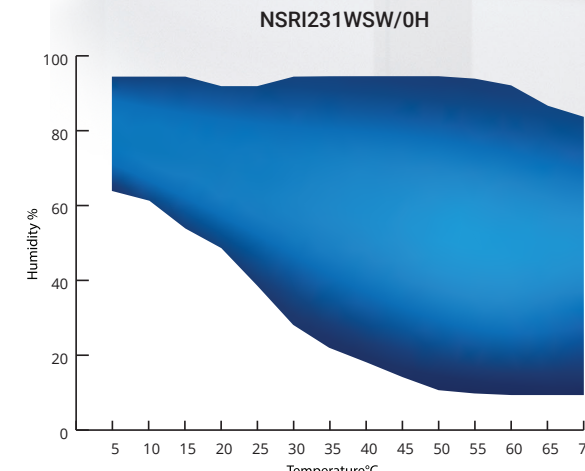
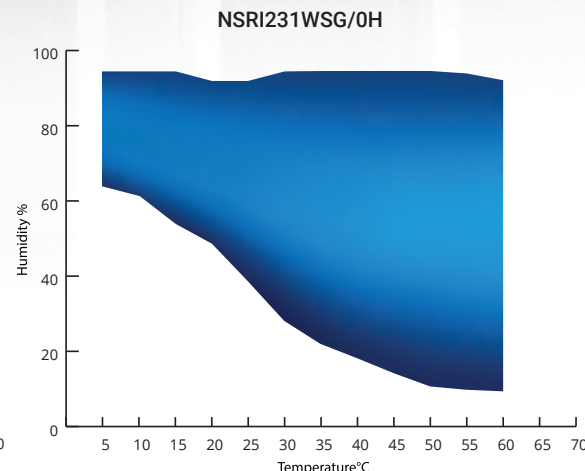
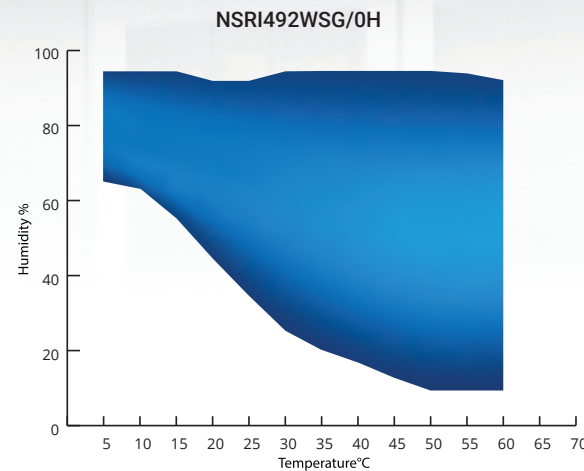
# Unrivaled Temperature Uniformity and Stability

## Humidity Variation

+/-3% @ +10°C to +70°C (humidity controlled range) and RH within performance graph. Humidity variation is derived from the maximum deviation of the humidity sensor during the test period.\*

## Temperature Uniformity

+/-1°C @ +4°C to +70°C. The published temperature uniformity is derived from the maximum deviation of 9 thermocouples are placed on 3 horizontal planes, each plane having the thermocouples evenly spaced diagonally across the shelf from the left and right inner wall, and the middle sensor placed in the approximate geometric center of the shelf.\*



\*Performance data is based on cabinet set at +23°C, 50% RH ambient conditions, type T-24 Ga. thermocouples with 1.0 oz. brass slugs attached and no product in the chamber. Data may vary if; ambient conditions change, product load is added, or other changes cause interference to chamber airflow.

# A Stability Chamber Designed with you - In Mind and the Environment - In Mind



## Featuring:

- (A) Smart Controller with full array of alarms
- (B) Top mounted, variable speed compressor
- (C) Full Chamber Plenum for uniform temperatures
- (D) Tool-less removable and reconfigurable interior storage
- (E) Self-closing door/ Heavy duty door handle
- (F) Probe access port (3/4")
- (G) Floor drain
- (H) 304 Stainless steel interior
- (I) Keyed door lock
- (J) White-powder coated steel exterior
- (K) High Visibility LED Lighting

## Additional Features:

- Cabinet is foamed-in-place with EPA compliant high density; polyurethane foam insulation
- Hydrocarbon natural refrigerant (R290)
- Multi-element, independent proportional electric heating
- Condensate evaporation
- 10-60 PSI demineralization water supply required
- Uses standard NEMA 5-15 Plug
- System turns off refrigeration when not needed saving energy
- ETL Listed

Model	Doors	Shelves	Width"	Depth"	Height"	Refrigerant	H.P.	Amps
NSRI231WSW/OH	1 Solid	3 Adj. Sliding	26 7/8	36 3/8	81 1/2	R290	1/3	12
NSRI231WSG/OH	1 Glass	3 Adj. Sliding	26 7/8	35 3/4	81 1/2	R290	1/3	12
NSRI492WSW/OH	2 Solid	6 Adj. Sliding	54	36 3/8	81 1/2	R290	1/3	12
NSRI492WSG/OH	2 Glass	6 Adj. Sliding	54	35 3/4	81 1/2	R290	1/3	12

## Control System

A fully programmable PID, proportional integral derivative, control with non-volatile memory provides a user interface through an LCD display. All set points are adjustable by one multi-function interface key pad. The standard control includes: Fully programmable ramp soak functions with 21 schedule points, product and air temperature Centigrade scale, alarm/temperature logging, system mode indicator heating/cooling, high/low audible/visual alarms, real time clock, power failure alarm, sensor failure alarms, service prompts and user password entry system. The modular system includes expansion slots on the control board for the ability to add options at a later date.



## Featuring:

- ① Air Temperature °C scale
- ② Relative Humidity %
- ③ LCD Display
- ④ Real time clock
- ⑤ Real time Date

## Additional Features:

- Heating/Cooling mode switchable
- Hi/lo audible and visual alarms
- Power failure alarm
- Sensor failure alarm
- Password protected

## Optional Accessories

**Water Recycler** - The water recycler is designed to be a standalone water source. The water recycler can utilize clean tap water and collected condensate from a Humidity Stability Chamber, eliminating the need for a piped water supply. The water recycler also eliminates the need for a drain, as all condensate is filtered and recycled back to the cabinet. (Installation required)

**Temperature Monitoring Device** - WiFi enabled, single or dual probes. Reach out to your Sales Representative to find your application solution.

**Additional Shelves** - 304 Stainless Steel Perforated Sliding Shelves

**IQ/OQ/PQ Validation Packages** - Learn more by contacting your local Sales Representative

**Access Port 2"** - Provided with a spring-loaded cover on the side of the cabinet. (Installation Required)



Optional Water Recycler





## Contact Us Today To Schedule a Meeting

Nor-Lake Scientific  
125 Varnfield Drive  
Summerville SC, 29483  
1-800-648-4041  
[www.norlakescientific.com](http://www.norlakescientific.com)

Customer Service: 1-800-648-4041 Option 3  
[Customerservice@horizonscientific.com](mailto:Customerservice@horizonscientific.com)

Technical Service: 1-800-648-4041 Option 5  
[Technicals@horizonscientific.com](mailto:Technicals@horizonscientific.com)