

Terra Universal 9500-00A

NitroWatch Relative Humidity Controller



Limited Availability
Used and in Excellent Condition

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NitroWatch®

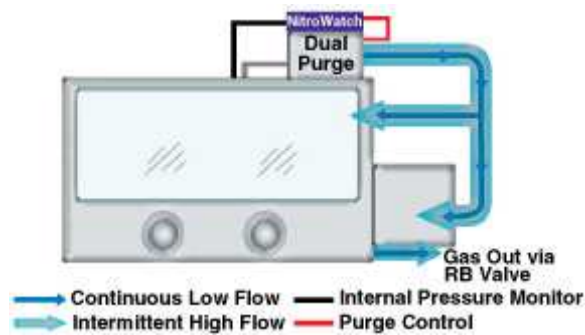
- Automatically controls Dual Purge™ System to maintain the desired low relative humidity level (2%RH to ambient) in a glove box or other enclosure
- Reduces nitrogen costs by up to 78%
- Continuously monitors and displays relative humidity level
- Automatically compensates for shifting environmental variables, eliminating guesswork and reliance on supervisory personnel
- New miniaturized sensor eliminates dead space inside glove boxes
- Easy-program control functions



Extends shelf lives of stored materials
by controlling moisture and moisture-related defects

Purging a cabinet with nitrogen is an effective way to maintain a low-humidity storage environment. Using a flowmeter to control the nitrogen purge gas, however, causes unnecessary costs!

If you set the gas flow level too high, expensive nitrogen is wasted and cabinet seals are exposed to excessive pressure that could lead to leaks (or even ruptures!). If you set the flow level too low, you may wind up with ineffective contamination and moisture control and expensive component damage. Both problems have cost the semiconductor industry millions of dollars annually, simply because no adequate controller has been available.



NitroWatch®: Humidity Monitor & Control
(Dual Purge™ System, RB® valve required)

CE All desiccator cabinets and Dual Purge™/
NitroWatch™ control systems

Terra Universal's NitroWatch® solves these problems by sensing and displaying the relative humidity of an enclosed environment, such as a desiccator, Faraccator, or glove box. More importantly, it operates with the Dual Purge™ System to precisely control the flow of nitrogen into the enclosure and maintain a preset humidity level.

Operation is simple and reliable. Simply program the desired level, and then let the system do its job. The fast-response, capacitive-type sensor detects the relative humidity; the level is indicated on a 4-digit LED display. The NitroWatch® controls Dual Purge™ System

operation to maintain the setpoint level—no matter how often doors are opened, or how large the system is, or what the ambient humidity is, or what time of the day or night. High-flow purges are initiated only when a door is opened or the humidity climbs above the setpoint. The moment acceptable conditions are restored, the system returns to low-flow purging.

Additional Savings Through Reduced Nitrogen Waste

Higher quality control and reduced part rejects are two convincing reasons to consider the NitroWatch®. But they aren't the only ones.

Your biggest savings will probably come in reduced nitrogen expenses. Typically, the nitrogen flow in a desiccator cabinet is set at a level high enough to compensate for access to stored parts during working hours; this means that a constant high-level purge is required. Yet in most cases, doors remained closed for over 75% of the time! During off hours, weekends and holidays, unnecessarily high amounts of nitrogen are fed through the system and bled out as waste—even though no flow (or only a very minute flow) may be needed to maintain the appropriate internal humidity and positive pressure. Excess nitrogen bleeding can even endanger worker safety if ambient oxygen levels fall too low.

When you turn out the lights and lock the door, the NitroWatch® will cut out the nitrogen waste. This savings alone in most cases pays for the system within six months. Test data show typical savings of 78% of nitrogen consumption. And you'll be assured that stored components (and your workers) are safe.

Space-Saving Sensor

The NitroWatch sensor can be placed nearly anywhere inside a sealed enclosure without interfering with shelves, doors, process equipment, or stored materials. This sensor features miniaturized components that provide better than 3%RH accuracy over the 10%-90%RH range. Further, it never requires calibration.

The NitroWatch® controller comes complete with all necessary controls for monitoring the relative humidity level. For automatic humidity control, the unit must be connected to Terra's Dual Purge System. Order the NitroWatch® Sensor separately.

Specifications	
Controller	
Dimensions:	11"W x 6.25"D x 3"H 279 mm x 159 mm x 76 mm
Weight:	8 lbs. 3629 g
Power:	12 VDC (provided by Dual Purge™ System)
Case Material:	304 Stainless steel
Output:	0-5 V

Measuring Range:	.0-100%RH
Display Resolution	±.1%RH
Temperature Dependence:	±.04%RH/°C
Sensor	
Dimensions:	1.5" x .75" x 4" 38 mm x 19 mm x 102 mm
Weight:	3 ozs. 85 g
Measuring Range:	0-100%RH
Accuracy (at 20°C):	± 3%RH
Housing Material:	304 Stainless Steel
Calibration:	None required.

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