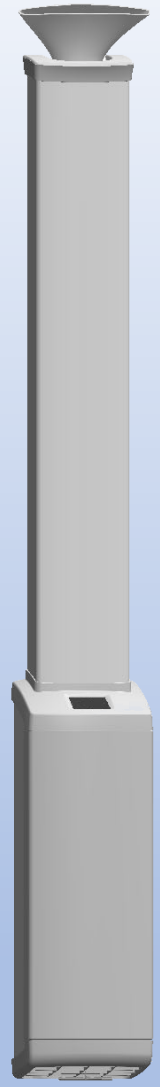
Data Sheet

uvcPhyzx ThetaOne
Air Sanitization Unit



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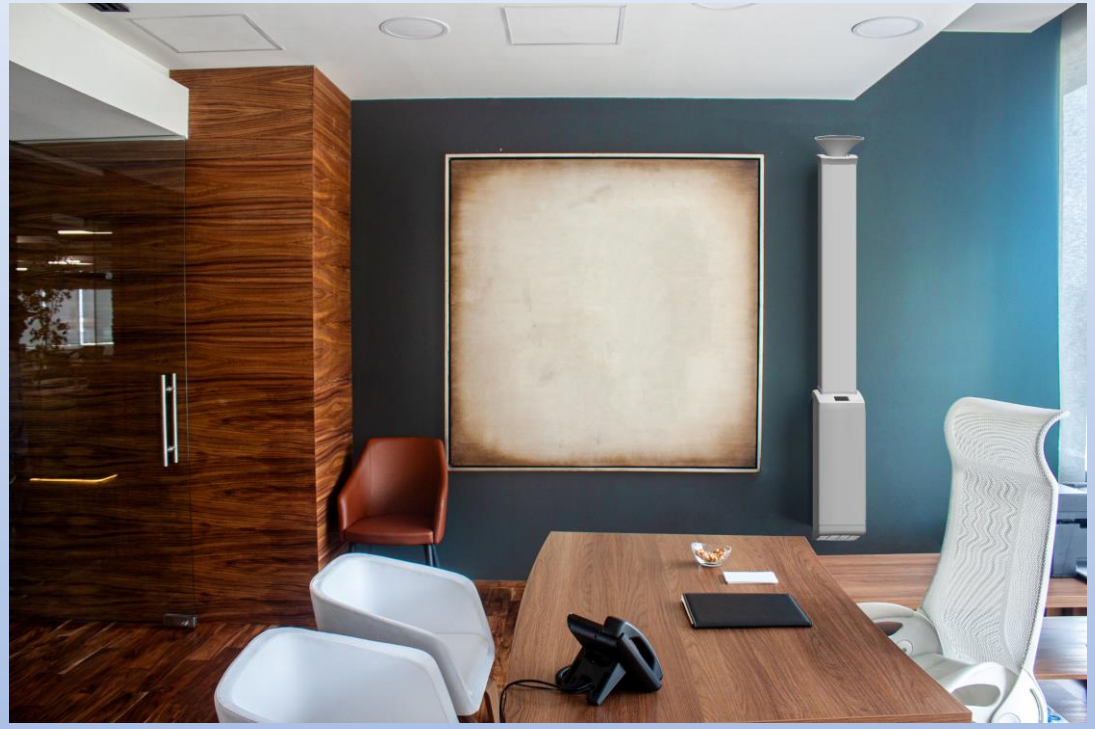
- **DEVICE OVERVIEW**

The ThetaOne Air Sanitizer is a wall-mounted unit utilizing a quiet fan and a powerful UV-C exposure chamber to effectively eliminate airborne pathogens



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- **HOW IT WORKS**

The uvcPhyzx ThetaOne Air Sanitizer draws air into the device from near the floor where pathogen concentration is highest. A flow rate of 125 cfm is generated by a fan in the lower body of the device.

The airflow is pushed through a proprietary exposure chamber containing a 200W UV-C source in the upper body. The UV-C light breaks down the RNA structure of pathogens rendering them inactive. The UV light is completely contained within the unit for safe operation in any occupied space. The ThetaOne has been certified to deliver 156 cfm CARm (ASHRAE-approved test methodology and rating).

The airflow exits the unit at the top and induces a ceiling-to-floor flow pattern that delivers sanitized air to the breathing zone of occupants within the space.

The device is fully independent of HVAC systems and can run full-time even when other ventilation systems are not operating. The device can be easily integrated into Building Management Systems (BMS, BAS).

There is no HEPA filter to collect live pathogens; this drastically reduces required periodic maintenance and allows for a very quiet fan because less power is needed than devices pushing air through a dense filter media.

The device is wall-mounted to minimize physical space requirements within a room.

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SPECIFICATIONS	ELECTRICAL	PERFORMANCE
Dimensions: 85” H, 10” W, 8” D from wall	110-120 V ~60 Hz 220-240 V ~50 Hz*	Air flow rate: 125cfm
Weight: 31 pounds	260 W max	CARm rating: 156cfm**
Wall hung with supplied bracket	US Type B plug* from bottom or hardwire connection from top	Noise: tbd dBA
	UV-C lamp: 254nm, 200W	

User Interface and Communications
3.5” touch screen with Wi-Fi, LoRa, USB, Ethernet, and RS-485 ports

Maintenance Requirements
Pre-filter does not need changing but may need periodic cleaning (vacuum surface) depending on environment. UV-C lamp will need replacement every 9000 hours of operation (indicated on control panel).

*International plug upon request

**CARm certified by independent test at RTI International, Research Triangle, NC (October 2021) – request report from info@uvcphyzx.com

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FAQs

What does it do?

Air passes through an intense UV-C Photon field in the illumination cavity where photon energy disrupts the DNA and RNA structures eliminating a pathogen's ability to replicate.

How do you know it works?

RTI, an independent testing lab certified the device with a Clean Air Rate microbial (CARm) of 156 CFM using MS2 (a SARS-CoV-2 surrogate virus which is 10 times more difficult to inactivate). Our device is equally effective on other pathogens such as flu virus.

What makes it special?

Our Innovation is that we inactivate pathogens without the need for noisy HEPA filtration using our novel approach of Photon Density.

We take the most heavily-laden viral air from near the floor of the room and discharge sanitized air into the upper room.

Our device and the room comprise a "system" designed using computational fluid dynamics (CFD) to create "Clean Air Zones" to targeted areas within a room.

What do you mean "System"?

Each unit is suitable for a given amount of room volume and desired air changes per hour. If the room exceeds this volume, we add additional units. How the units interact tailors the clean air distribution within the space.

One unit is suitable for an office, two for a typical conference room, and 2-3 for a classroom or training room.

How does the device "Save Energy"?

Suggested solutions for improving indoor air quality include increased filtering in HVAC systems or opening windows for fresh air. These techniques significantly increase energy usage. Our system operates full time without need for HVAC or outside air. There is no increased load due to filtration or need to heat/cool/humidify outside air saving energy over alternatives.

Contact us via email: info@uvcphyzx.com