

## **HOW IT WORKS**

This patented technology produces a high concentration of positive and negative ions, delivering them to the space via the ventilation system. Within the air stream, ions attach to particles, where they combine, become larger and are more easily filtered from the air. When ions come into contact with pathogens, they disrupt the pathogens' surface proteins rendering them inactive and unable to replicate.

## **RESULTING CLEAN AIR**

Compared to a MERV 8 filter alone, the addition of the NPBI™ solution significantly improves the filter performance by the action of the ionization combining particles into larger bodies that can be easily filtered. Some compelling evidence, supported by independent third party testing (information available at <a href="https://gpsair.com/third-party-testing">https://gpsair.com/third-party-testing</a>):

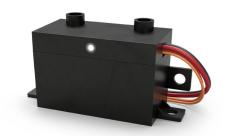
- Average of 99.8% of submicron particles removed in 4 air changes versus 47.7% without NPBI™
- On average, submicron particle removal efficiency comparable to HEPA filter performance (98% versus 99.3% for HEPA)
- Removed PM1.0 twice as fast as a MERV 8 filter alone

# NEEDLEPOINT BIPOLAR IONIZATION (NPBI™)

Airedale by Modine® offers industry leading in-classroom ventilation solutions engineered for a cleaner, healthier classroom. Some of the features that make our ventilation units an outstanding solution for classrooms is the ability to provide fresh, conditioned outside air for ventilation, filtration options up to MERV 13 per industry guidance, and energy recovery to increase outside air while minimizing energy consumption. Additionally, we offer an optional, factory installed Needlepoint Bipolar Ionization (NPBI™) air cleaning product from GPS Air® to further combat airborne pathogens and fine particulates, including those created by wildfires. The product has been certified for zero ozone emissions (<=5ppb) per the very stringent UL2998 standard. The option can be installed in any of our in-classroom ventilation products.







#### NPBI-AIR4™ SPECIFICATIONS

• Input Voltage: 24VAC, 12-36VDC

Power: 4 Watts (operating) / 7 Watts (cleaning cycle)

Frequency: 50/60HZ

• Total Ion Output: >300 Million ions/cc (>150M +, >150M -)

Airflow Capacity: 0 to 2,400 CFM or up to 6 tons

Temperature/Humidity: 20°F to 140°F / 0 to 100% RH

• Unit Dimensions/Weight: 5.0"L x 1.0"W x 2.5"H / 0.33 lbs

• Alarm Contact Rating: 125VAC / 300mA, N.O. dry contact

• Electrical Listings: UL, cUL

Certifications: UL 867, UL 2998 (Ozone free), UL 2043,
CARB

Maintenance Frequency: None, self-cleaning system

Available on the ClassMate<sup>™</sup>/SchoolMate<sup>™</sup>, Sentinel<sup>™</sup>, and
Varsity<sup>™</sup> product lines

## GPS-FC-3-BAS™ SPECIFICATIONS

• Input Voltage: 24V AC/DC

Power Consumption: 1.2 Watts

• Frequency: 50/60 Hz

• Total Icon Output: > 350 Million icons/cc

Airflow Capacity: 0 to 3,200 CFM or up to 8 tons

Temperature Range: -20°F – 140°F

Humidity Range: 0 – 100% RH

Unit Dimensions: 2.6" L x 1.9" H x 1.3" D

Weight: 0.23 lbs

Electrical Listings: UL

Alarm Contact Rating: 24VAC, 0.1A, N.O. "dry" contact

Compliance & Certifications: UL 867, UL 2998, CARB,
IAQP. CE

Available on the Ductless Ceiling Cassette product line

\*GPS Air® uses multiple data points to formulate performance validation statements. GPS technology is used in a wide range of applications across diverse environmental conditions. Since locations will vary, clients should evaluate their individual application and environmental conditions when making an assessment regarding the technology's potential benefits.

The use of this technology is not intended to take the place of reasonable precautions to prevent the transmission of pathogens. It is important to comply with all applicable public health laws and guidelines issued by federal, state, and local governments and health authorities as well as official guidance published by the Centers for Disease Control and Prevention (CDC). As Modine Manufacturing Company has a continuous product improvement program, it reserves the right to change design and specifications without notice.

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