# Phenomenal Aire Ongauge Meters

When it comes to measuring and monitoring the performance of Phenomenal Aire™ the options offered by TPI range from: inexpensive hand-held devices to permanent mounted and hard wired sensors that interface with third party Building Automation Systems (BAS).

*iOnguage Series h* is a hand held air ion counter. The unit is capable of measuring and displaying positive and negative ion counts as well as the differential between positive and negative ions.

*iOnguage Series i-2.0* is designed for permanent installation in the duct or inside an air handling unit, downstream of any Phenomenal Aire™ ionization unit. The iOnguage i-2.0 includes sensitivity settings that can be set based upon application and installation location. Settings include: 20,000 / 200,000 / 2.000.000 ions/cc/sec.

*iOnguage Series p* is a plenum mounted ionization detector designed to confirm ionization output from Phenomenal AireTM advanced IAQ products. The detector is supplied with an alarm relay that can be wired into the building management system.

*iOnguage Series e* is a wall mounted ion detector that takes air samples 24/7 and provides a 2VDC - 10VDC output for remote monitoring that correlates to a 0 to 10,000 ions/cc sensed level.

The advantage of TPI-VOC sensors is that they measures air contaminants from sources other than just respiration, such as: building materials, cleaners, perfumes, furniture and carpet off-gassing. TPI's sensors also indicate when a space is occupied similar to other industry sensors

#### Standard Features Include:

- Auto-Calibration
- Wide Sensing Range of Compounds
- Sensor Output Correlates to Standard DCV Algorithms

### ion production



Indoor Air Quality (IAQ)



Authorized Distributor/Wholesaler

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# Phenomenal Aire

# Advanced IAO technology for the built environment™.

Phenomenal Aire™ utilizes needlepoint bipolar ionization technology and is designed for installation as individual IAQ devices or as modular ionization systems in commercial heating ventilation and air conditioning systems (HVAC). The technology's air cleaning process enhances existing HVAC filtration, reducing airborne pollutants within the HVAC system and the occupied space.

# Series C Universal ™

The Phenomenal Aire Series C Universal™ from Top Product Specifications Innovations is an advanced modular ionization system. The technology is powered by needlepoint clusters™.Each needlepoint clusterTM generates up to 190 million positive and negative ions. POWER CONSUMPTION: The powerful clusters are housed in Universal Blades™. Each blade generates up to 4.2 billion ions per cubic centimeter per second. The Series C Universal<sup>™</sup> comes standard with a single Universal Blade<sup>™</sup> rated for treating up to 6,000 cfm of airflow.

To increase ion production, add a blade. The Series C Universal™ can use up to four blades to produce over 16 billion ions and treat 20,000 cfm of airflow. The all-plastic and carbon fiber construction allows the technology to be mounted in any environment regardless of corrosive chemicals in the air. In addition to its high ion production capacity and rugged design, the Series C Universal™ is easy to install. The built-in transformer and power selector switch cut down on wiring requirements, reducing time on site and reducing parts inventory in a technician's van.

The Series C Universal™ is UL 2998 validated for zero emissions.

### Powered by Needlepoint Clusters™ (f)



# UNIVERSAL BLADE™ LENGTH: 8.14" VOLTAGE: 24 VAC, 110 VAC, 220 VAC 5W on 110 VAC or 208 VAC setting 5VA on 24 VAC setting FREQUENCY: 50 Hz, 60 Hz **ELECTRODE: Carbon Resin** TEMPERATURE RANGE: -20° to 140 °F PRESSURE DROP: <0.05" WV **HUMIDITY RANGE: 0-100% SELF CLEANING OPERATIONS**

I X UNIVERSAL BLADE™ 4.2 BILLION IONS / CC 6,000 CFM 2 X UNIVERSAL BLADE™ 8.4 BILLION IONS / CC 10,000 CFM 3 X UNIVERSAL BLADE™ 12.6 BILLION IONS / CC 15,000 CFM

4 X UNIVERSAL BLADE™ 16.8 BILLION IONS / CC 20,000 CFM

# Why Phenomenal Aire™?

Phenomenal Aire™ advanced IAQ technology is <u>proven</u> technology with thousands of commercial installations.



Easy to Install

- Economical Investment
- No Planned Parts Replacement Consumes Minimal Energy for Operation

## Series C™

Series C products are ideal for AHU and Rooftop unit installations. The Series C 6.0 is rated for systems up to 6,000 CFM. The Series C 10.0 is rated for systems up to 10,000 CFM. Both units include an alarm contact for interfacing to a Building Management Systems (BMS). Series C units also include an integral LED for local operational status.

### **Specifications**

- ETL LISTED / UL-867
- AIR FLOW CAPACITY & AREA OF COIL FACE COVERAGE— C 6.0 0 TO 6,000 CFM (4'X4' COIL FACE) C10.0 6,000 TO 10,000 CFM (6'X6' COIL FACE)
- VOLTAGE 16 TO 35 VAC; POWER WITH 24 VAC
- PRESSURE DROP < 0.05" WC
- POWER CONSUMPTION 12 VA
- NEEDLEPOINT PROBE LENGTH 6" & 10"
- FREQUENCY 50 HZ 60 HZ
- ELECTRODE CARBON RESIN
- TEMPERATURE RANGE -20 F TO 140 F
- IONIZATION GENERATION NEEDLEPOINT BI-POLAR
- ION GENERATION (OUTPUT)-
- C 6.0 360 MILLION IONS/CC/SEC PER INCH OF STINGER™ C10.0 360 MILLION IONS/CC/SEC PER INCH OF STINGER™
- ION STATUS GREEN LED
- HUMIDITY RANGE 0-99%



#### C 6.0 3 BILLION IONS/CC 6,000 CFM MOUNTING BOX – ABS UL 94 PLASTIC C 10.0 6 BILLION IONS / CC 10,000 CFM •UV WEATHERIZATION COATING FOR EXTERIOR MOUNTING

# **Unit Application Quick Select**

	Product	HVAC Applications	Airflow Capacity	Voltage	BAS Connection
HAT I	D 1.2-1	Fan Coils, Heat Pumps, PTACs, Ductless Mini- Splits, Air Handlers	Up to 1,200 CFM (3 tons)	115 / 120v	NO
	D 1.2-2	Fan Coils, Heat Pumps, PTACs, Ductless Mini- Splits, Air Handlers	Up to 1,200 CFM (3 tons)	208 / 277v	NO
	D 3.2	Fan Coils, Heat Pumps, PTACs, Ductless Mini- Splits, Air Handlers	Up to 3,200 CFM (8 tons)	24v	YES
10	C 6.0	Air Handlers, Rooftop Units, Package Units	Up to 6,000 CFM (15 tons)	24v	YES
	C 10.0	Air Handlers, Rooftop Units, Package Units	Up to 10,000 CFM (25 tons)	24v	YES
	C Universal	Air Handlers, Rooftop Units, Package Units	C6 Up to 6,000 CFM (15 tons) C10 Up to 10,000 CFM (25 tons) C15 Up to 15,000 CFM (35 tons) C20 Up to 20,000 CFM (50 tons)	24/120/240V	YES

### Series D™

Series D products are carbon fiber brush, needlepoint bipolar ionization units rated for 1,200 to 3,200 CFM or up to 8 tons nominal capacity. Series D units are great for mounting in fan coils, mini-splits, chilled beams, water source heat pumps, RTUs or any other forced air systems. Series D 3.2 includes an alarm contact for interfacing to a BMS. It also includes an integral LED for local operational status.



	D 3.2	D 1.2-1	D 1.2-2
Input Voltage	ut Voltage 24VAC		208/277V
Power Required	12Va	2VA	2VA
Frequency	50/60HZ	50/60HZ	50/60HZ
Capacity	3,200 CFM	1,200 CFM	1,200 CFM
Unit Dimensions	2.6"L x 1.9"H x 1.3"D	2.2"L X 1.6"H X 1.0"D	2.2"L X 1.6"H X 1.0"D
Weight	.25lbs	.25lbs	.25lbs
Electric Approvals	cMETus UL 60335-2-65	ETL Recognized	ETL Recognized
Environmental Approvals	UL 2998	UL 867	UL 867
Ion Output	utput >350M ions		>130M ions
BMS Alarm Contact Rating	Up to 120VAC & 5 Amps	Up to 120VAC & 5 Amps	Up to 120VAC & 5 Amps
Pressure Drop	<0.05" W.C. @ 5,000 FPM	<0.05" W.C. @ 5,000 FPM	<0.05" W.C. @ 5,000 FPM
Mounting Box	ABS 94VO	ABS 94VO	ABS 94VO
Electrode	Carbon Fiber	Carbon Fiber	Carbon Fiber
Temperature Range	nperature Range -20F to 160F		-20F to 160F
Humidity Range	idity Range 0-100%		0-100%
ir Flow Sensing Electronic- No External Air Pressure Switch Required		NA	NA
Ion Alarm Status	Alarm Status BAS Dry Contact & Local LED Status		NA

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